LOS ANGELES COUNTY
DEPARTMENT OF
REGIONAL PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

CONNIE CHUNG, AICP
Deputy Director,
Advance Planning

DAVID DE GRAZIA
Deputy Director,
Current Planning

SHARON GUIDRY
Deputy Director,
Land Use Regulation

JOSEPH HORVATH
Administrative Deputy,
Administration

January 27, 2026

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

PROJECT NO. PRJ2023-002405-(5)
CONDITIONAL USE PERMIT NO. RPPL2023005137
ENVIRONMENTAL PLAN NO. RPPL2023005138
APPLICANT: RPCA SOLAR 12, LLC. C/O RYAN NYBERG
PROJECT LOCATION: 49560 230TH STREET WEST, LANCASTER
ANTELOPE VALLEY WEST ZONED DISTRICT
(FIFTH SUPERVISORIAL DISTRICT) (3-VOTES)

SUBJECT

This item is an appeal hearing for the Regional Planning Commission's approval on August 20, 2025, of Project No. PRJ2023-002405-(5), including Conditional Use Permit (CUP) No. RPPL2023005137 and certify the Mitigated Negative Declaration (MND) and Mitigation Monitoring and Reporting Program (MMRP) associated with Environmental Plan No. RPPL2023005138. The non-applicant appellant, Save Our Rural Town or SORT (Appellant), has appealed the approval. The permit is to authorize the development, operation and maintenance of a new ground-mounted utility-scale photovoltaic solar energy facility including an accessory battery energy storage system and appurtenant facilities and equipment in the A-2-2 (Heavy Agricultural – Two Acres Minimum Required Lot Area) and Antelope Valley West Zoned District. A Mitigated Negative Declaration was adopted to reduce impacts to air quality, biological resources, cultural resources, and tribal cultural resources to less than significant with mitigation measures pursuant to CEQA requirements.

IT IS RECOMMENDED THAT THE BOARD AFTER THE PUBLIC HEARING,

1. Close the public hearing for Project No. PRJ2023-002405-(5), consisting of CUP No. RPPL2023005137;
2. Adopt the MND and MMRP; and

3. Indicate its intent to deny the appeal of the Commission's approval and instruct County Counsel to prepare the necessary findings to uphold the Commission's approval of the Project.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The applicant, Renewable Properties, LLC, proposes to develop and operate a 4.99-megawatt (MW) utility-scale community solar facility on approximately 31 acres within a 40-acre parcel at 49560 230th Street West in unincorporated Lancaster. The Project includes photovoltaic panels mounted on single-axis tracking systems up to 25 feet in height, an accessory 4.99-MW Battery Energy Storage System (BESS), and related infrastructure such as utility connections, access roads, and fencing and landscaping to minimize visual and land use impacts, in compliance with the County's Renewable Energy Ordinance. The BESS is accessory to the solar energy facility because it will be used solely for renewable energy that is generated on site, by storing excess electricity generated and dispatching to the grid during high energy demand. The solar facility is connected to Southern California Edison (SCE) infrastructure through a 675-foot underground generation-tie line linking to the Neenach Substation. The parcel also currently contains a Single-Family Residence, which will remain within a nine-acre area outside the footprint of the solar facility.

Project infrastructure will include perimeter and interior access roads, a 10,000-gallon fire-fighting water tank, stormwater retention and infiltration basins, and enclosed battery storage containers. Construction is expected to last about seven months, employing up to 50 workers at peak activity, and requires 3,600 cubic yards of balanced grading. Dust suppression, noise limits, and other best practices will be implemented in compliance with County Code and air quality requirements. The Project's operational water demand will be minimal, with about 13 acre-feet required for construction and 0.2 acre-feet required annually thereafter, sourced from a local water purveyor within the Antelope Valley-East Kern (AVEK) Water Agency service area.

The Project is part of the SCE's Community Renewables Program, which allows community subscribers to benefit directly by discounted electricity rates for the power produced from the solar facility. Community solar facilities are small to medium solar facilities that typically generate less than 20MW and are connected and located close to the local electric distribution grids. Community solar facilities serve local residents and businesses who subscribe to or buy shares in the Project, who then receive credits on their electricity bills for their portion of the power produced. As a community solar facility with an accessory BESS, the Project strengthens climate resilience by increasing energy equity for those who otherwise would not own a renewable energy system and supports local energy reliability and access to solar energy. The Project supports the implementation of the following Goals and Strategies of the 2024-2030 County Strategic Plan and Countywide Sustainability Plan:

North Star Priority 2: Foster Vibrant and Resilient Communities, Focus Area D - Sustainability, Strategies 1 (Climate Health) and 2 (Green Economy)

The Project supports the County's sustainability goals to reduce greenhouse gas emissions and reduce overall impacts to climate change. The Project will generate 4.99 MW of clean, renewable energy by reducing reliance on fossil fuels and lowering greenhouse gas emissions associated with electricity consumption. With an integrated 4.99-MW accessory BESS, the

Project further enhances climate resilience by providing grid stability and storing renewable energy for use during peak demand periods, which directly mitigates the risks of rolling blackouts and grid stress during extreme weather events. In addition, the Project will contribute to local job creation during construction and ongoing operation. Up to 50 workers will be employed at peak construction, and local vendors and contractors may also benefit from Project-related procurement. By fostering renewable energy development, the Project contributes to expanding the County's green economy, creating both direct and indirect pathways for workforce participation in sustainable industries.

LA County, Sustainability Plan, Goal 7: A fossil fuel-free LA County, Strategy 7A (Transition to a zero-carbon energy system that reduces air and climate pollution and that minimizes the dangers of a changing climate to our communities and economy)

The Project advances a fossil fuel-free LA County through the deployment of clean, renewable energy. With a generation capacity of 4.99 MW, this community solar facility will provide electricity to community subscribers at a discounted rate and replace fossil fuel-based electricity among the shareholders, reducing both air pollution and greenhouse gas emissions while contributing to California's and the County's renewable energy targets. By integrating an accessory BESS, the Project not only maximizes the utilization of solar energy but also enhances grid reliability, storing clean power for use during periods of peak demand. This capability reduces reliance on carbon-intensive power plants, mitigates the risk of power outages, and strengthens local energy resilience, particularly during extreme weather events. Moreover, as a community solar facility, the Project enables local shareholders to access renewable energy directly, fostering equitable energy benefits and supporting the County's broader objectives of climate protection, clean energy transition, and sustainable community development.

FISCAL IMPACT/FINANCING

The approval of the CUP is not expected to result in any new significant costs to the County. The applicant will bear the cost of construction and operation of the development, and the County will not be fiscally responsible for any development costs. The applicant will fully cover the associated costs of making connections to the existing grid and upgrades to existing infrastructure. The applicant is also required to fully cover the costs associated with physical improvements and inspections required by the County Departments of Public Works and Fire.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

Commission Hearing Proceedings

A duly noticed public hearing was held on August 20, 2025, before the Commission. Staff presented the Project, followed by testimony from Mr. Nyberg, representing the applicant, RPCA Solar 12, LLC. Three speakers (a nearby resident and two members of SORT) testified in opposition, raising concerns related to valley fever, potential fire hazards, land use compatibility, and noise. The Applicant team of Mr. Nyberg and Ms. Fan responded to these

concerns. The Commission directed that the Project be conditioned to relocate the accessory BESS farther from the nearest SFR. The Commission also inquired about potential heat island effects from the Project. Staff responded that such impacts are not addressed under the California Environmental Quality Act (CEQA) or any of its applicable thresholds, and that current photovoltaic technology does not amplify heat in a way that would create significant impacts in the surrounding area. Following Commission discussion, the Commission closed the public hearing and approved the Project by a vote of 4 to 1.

Appeal of the Commission's Decision

On September 3, 2025, the County received an appeal of the Commission's approval of the Project and its environmental documents, including the MND and MMRP.

SORT filed an appeal of the Commission's approval, and provided the following reasons for the appeal:

1) The approval of a BESS as an accessory use violates the Zoning Code;
2) Noise impacts are not mitigated to a level that is less than significant;
3) The MND fails to address the Project's wildfire and hazardous emission impacts;
4) Water resources claimed in the Project do not exist;
5) The proposed 10,000-gallon water tank is insufficient for BESS fire suppression and wildfire protection; and
6) Approval of the CUP separately from a Franchise Agreement (if required) violates CEQA.

Responses to Appellant Claims

1) The approval of a BESS as an accessory use violates the Zoning Code;

The approval of the accessory BESS is consistent with Title 22 (Planning and Zoning) of the County Code. For the reasons outlined below, the County determined that the BESS is accessory to the solar facility. The BESS is directly tied to and designed to support the principal use of the utility-scale solar energy facility. By storing electricity generated on site and discharging it to the grid as needed for the local shareholders, the accessory BESS enhances the efficiency, reliability, and overall functionality of the Project. Its role is subordinate and incidental in use to the principal solar facility and therefore meets Title 22's definition of an accessory structure specified in County Code Section 22.14.010 (A). Additionally, pursuant to Table 22.16.030-C (Accessory Use Regulations for Agricultural, Open Space, Resort and Recreation and Watershed Zones), permitting for accessory structures is determined by the principal use, which for the utility-scale solar facility is a CUP. Thus, the accessory BESS is part of the Project CUP.

Since the accessory BESS is part of the operation of the Project and does not function as a stand-alone energy storage facility, its classification as accessory is both appropriate and consistent with County Code provisions. The accessory BESS supports

and enhances efficiency, reliability, and flexibility of the primary solar facility by storing extra energy generated on site and releasing it when demand is high or after sunset. Additionally, the accessory BESS comprises approximately 0.41 acres out of 31 acres, or 1.3 percent of the total solar energy facility footprint. Importantly, the accessory BESS will not serve any off-site property, further reinforcing its supporting role for the Project. The accessory BESS does not alter or expand the principal solar facility.

The Project will connect to SCE's 12 kilovolt (kV) distribution system rather than establish separate transmission-level lines or a new substation. Power generated from the solar facility will be delivered through the existing Tejon 12 kV distribution line, with SCE constructing a short time line to connect the Project at the site entrance. Such connection is sufficient to support the Project as it is a community-scale solar facility that connects directly to the local distribution network, thus routing the energy close to end users.

2) Noise impacts are not mitigated to a level that is less than significant;

The Project MND and Noise Study provide analysis in accordance with County Code Section 12.08.440 (Noise Control, Construction Noise). This section applies to mobile noise sources for construction projects throughout the County, such as construction equipment, and sets a 75 dBA limit for mobile construction noise.

The Noise Study followed established federal and state methodologies, using the Federal Transit Administration's Transit Noise and Vibration Impact Assessment Manual (2018) and Caltrans' Technical Noise Supplement (2013). These methodologies are specifically designed to model construction noise by accounting for the movement of equipment across the site during different phases of work. By modeling noise sources from the center of the site, the analysis provided an accurate, averaged estimate of noise exposure over an 8-hour workday. The County Department of Public Health reviewed the noise assessment and confirmed that construction and operational noise would not cause significant impacts, and therefore no mitigation is required. The County's analysis is based on reliable reference data from comparable projects and national standards, and the Noise Study concludes that construction noise impacts will be consistent with County standards and less than significant under CEQA.

3) Project MND fails to address the Project's wildfire and hazardous emission impacts;

The Project MND evaluated the Project's potential wildfire and hazardous emissions impacts and found no significant effects. The Project Site is currently not located in a Very High Fire Hazard Severity Zone and is surrounded by existing rural residential and vacant land. Additionally, the Project included protective features such as a 10,000-gallon fire suppression water tank and emergency access roads, in compliance with Fire requirements to ensure adequate fire protection. These features ensure that the Project

would not substantially increase wildfire risk or expose people or structures to wildfire hazards.

Regarding hazardous emissions, the MND evaluated air quality impacts from construction and operation using Antelope Valley Air Quality Management District thresholds and methodologies. Construction emissions of dust and exhaust will be short-term, well below regional thresholds, and controlled through required dust suppression and equipment best practices. Operation of the solar facility and accessory BESS will produce negligible emissions, as there are no combustion processes. The accessory BESS itself will be fully enclosed and incorporate multiple safety measures in compliance with stringent fire safety standards, including testing and certification, and subject to oversight by Fire to prevent the release of hazardous substances. The accessory BESS will use Lithium Iron Phosphate batteries, which are more stable and less prone to combustion than older technologies such as Nickel Manganese Cobalt batteries. Additional BESS configurations, such as installation on concrete and gravel foundations, provide fire resistance and emergency access while limiting overheating and spread of fire. The accessory BESS also incorporates additional protections including module-level monitoring, fireproof insultation, automated suppression systems, and rigorous testing requirements to ensure containment of any potential fire risks. By following compliance with the applicable regulations, the hazards and wildfire impacts would be less than significant.

4) Water resources claimed in the Project do not exist;

The Project Site is within the AVEK Division 1 Service Boundary. As the Project would be unmanned, no potable water or new well would be required. As stated in the MND, the Project would require approximately 13 acre-feet (AF) of water for construction and 0.2 AF annually for the operation. Since AVEK Water Agency is a wholesale supplier, water for the Project will be purchased from a local water purveyor within the AVEK Water Agency service area who would use trucks to deliver the water needed for the construction and operation of the solar facility.

5) The proposed 10,000 gallon water tank is insufficient for BESS fire suppression and wildfire protection; and

The Project Site is not located within a Very High Fire Hazard Severity Zone. The Project incorporates multiple fire protection measures, including the dedicated 10,000-gallon water tank, perimeter and interior access roads for emergency vehicles, vegetation management, and compliance with Fire standards.

The accessory BESS has been designed and will be installed in accordance with UL 9540 and UL 9540A fire safety standards, which are the national benchmarks for energy storage safety. The system consists of enclosed container units equipped with fire detection and suppression systems that are self-contained and built specifically for

BESS fire safety. Fire has reviewed these features and determined that the combination of on-site tank capacity, design standards, and emergency access meets all applicable requirements for both fire suppression of the accessory BESS as well as overall site fire protection. Fire cleared the Project for the public hearing and will continue to be involved with additional reviews and clearances prior to construction.

6) Approval of the CUP separately from a Franchise Agreement (if required) violates CEQA.

The Project directly connects to SCE infrastructure and would not require a new franchise agreement with SCE or an amendment to its existing franchise. The MND analyzed the overall activity that is being proposed and evaluated, focusing on the construction and operation of the solar facility and accessory battery, and included any reasonably foreseeable environmental effects in compliance with CEQA requirements.

ENVIRONMENTAL DOCUMENTATION

Prior to the Commission hearing on August 20, 2025, Staff had determined that an MND was necessary for the Project. This was identified in the Notice of Completion sent to agencies and published for public comments on May 8, 2025, for a 30-day public review period, ending on June 7, 2025. The County received three comments from members of the general public. These comments were addressed in the MND Appendix L, Responses to Comments. The Project hearing package, including the MND with technical appendices, were made available for public review from July 14, 2025, to August 20, 2025, a period exceeding 30 days. During this public comment period, copies of the Draft MND and technical appendices were also made available for review and inspection at the LA County Planning's Antelope Valley Field Office (335-A East Avenue K-6, Lancaster, CA 93535), and on the County's website.

No Impacts or Less Than Significant Impacts

The MND determined there are no impacts or less than significant impacts to Aesthetics, Agriculture/Forestry, Energy, Geology/Soils, Greenhouse Gas Emissions, Hazards/Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Mineral Resources, Noise, Population/Housing, Public Services, Recreation, Transportation, Utilities/Services, and Wildfires.

Less Than Significant Impacts with Mitigation

Environmental impacts to the following would be reduced to less than significant with mitigation: Air Quality, Biological Resources, Cultural Resources, and Tribal Cultural Resources. The mitigation measures identified in the MND are included in the MMRP. Examples of mitigation measures include reduce fugitive dust through implementation of the Dust Control Plans for impacts to Air Quality; a wildlife survey prior to the construction and avoidance by specific buffers related to Biological Resources; identifying culturally significant artifacts found during construction and notifying the appropriate authorities related to Cultural Resources; and

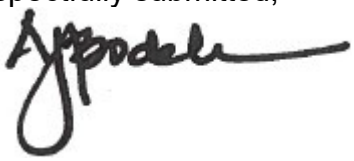
implementation of Tribal Cultural Resources Monitoring and Treatment Plan related to Tribal Cultural Resources.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of the Project is not anticipated to have negative impacts on current projects and services, inclusive of all conditions of approval, mitigation measures, and payment of all requirement development fees.

For further information, please contact Soyeon Choi of the North County Development Services Section at (213) 893-7021 or schoi@planning.lacounty.gov.

Respectfully submitted,



Amy J. Bodek, AICP
Director of Regional Planning

AJB:DD:SMT:SD:SC:lm

Attachments:

1. Appellant Letter filed by SORT
2. Applicant's Response to Appeal
3. Commission Approval Package (LINK)
4. August 20, 2025, Commission Hearing Package (Link)
5. MND and MMRP (See (bit.ly link)

c: Executive Office, Board of Supervisors
Assessor
Chief Executive Office
County Counsel
Public Works

NON-APPLICANT

Date September 3, 2025

Public Hearing/Zoning Section
Los Angeles County Board of Supervisors
Room 383, Kenneth Hahn
Hall of Administration
500 West Temple Street
Los Angeles, California 90012

PROJECT NO.: PRJ 2023-002405-(5)

APPLICANT: Amilcar and Debra Badano Trust/Renewable Properties LLC

LOCATION: 49560 230th Street West, Unincorporated Lancaster

Zoned District:

Related zoning matters:

CUP(s) or VARIANCE No. Conditional Use Permit No. RPPL2023005137

Change of Zone Case No.

Other Environmental Assessment No. RPPL2023005138

This is an appeal on the decision of the Regional Planning Commission in the subject case. This form is to be presented in person with a check or money order made payable to the "Board of Supervisors" (check or money order must be presented with personal identification), during regular business hours of 8:00 a.m. to 5:00 p.m. prior to the appeal deadline at the above address. (Appeal fees subject to change). Contact the Zoning Section of the Board of Supervisors for information: (213) 974-1426.

This is to appeal: (Check one)

_____ **The Denial of this request: $1,181***

_X_ **The Approval of this request: $1,181***

***Except for Subdivision appeals: $130.00 of this appeal amount is allocated to the Board of Supervisors' Hearing**

Briefly, explain the reason for the appeal (attach additional information if necessary):

This appeal of the approval of CUP RPPL2023005137 issued by the Regional Planning Commission on August 20, 2023 is brought by Save Our Rural Town on the following grounds:

1. The approval of a battery energy storage system (BESS) as an accessory use violates the Zoning Code.
2. The Project will create noise impacts that are not mitigated to a level that is less than significant.
3. The CEQA document (MND) fails to address the project's wildfire and hazardous emission impacts.
4. The water resources claimed by the MND do not exist.
5. The proposed 10,000 gallon water tank is insufficient for BESS fire suppression and wildfire protection.
6. Approval of the CUP separately from a Franchise Agreement (if required) violates CEQA.

Details pertaining to each of the grounds enumerated above are provided in the attached

x /S/ Jacqueline Ayer
(Signed) **Appellant**

Jacqueline Ayer Director, Save Our Rural Town
Print Name

2010 West Avenue K, #701
Street Address

Lancaster, CA 93536
City/Zip

Day Time Telephone Number

SORTActon@gmail.com
E-mail Address

The following analysis supplements Save Our Rural Town's (SORT's) appeal of the Conditional Use Permit (CUP) approved by the Regional Planning Commission (RPC) on August 20, 2025 for Project No. PRJ2023-002405-(5) consisting of a utility scale solar facility and a utility scale Battery Energy Storage System (BESS) on an agriculturally zoned property that is already developed as a single family residence (SFR). According to the developer, the sole source of the electrical energy stored by the BESS facility will be the solar facility; because the BESS facility will be used solely for the integration of renewable energy that is generated onsite, it was approved by Regional Planning as an "accessory use" on the property. No specific information regarding the generation "tie line" (gen-tie) has been provided other than it will be 675 feet long and connect to the grid; therefore, it is not clear if it is tying into the SCE distribution grid at 12 kV or the 66 kV subtransmission line (the "Antelope-Bailey" subtransmission line) owned by Southern California Edison (SCE) and operated by the California Independent Systems Operator (CAISO)[1]. The site plan suggests that the gen-tie is 12 kV, and that it will have to cross 230th Street West which is a County maintained road. If the developer is constructing the gen-tie line, then a Franchise Agreement with the County will be required per County Code Section 22.140.510.E.6.d.vi.

This supplement was prepared by Jacqueline Ayer, Director of Save Our Rural Town. Ms. Ayer is a certified environmental engineer and has 40 years of environmental engineering experience; for 20 years, Ms. Ayer has actively participated in both adjudicatory and quasi-legislative proceedings involving electrical transmission projects before the California Public Utilities Commission, the Federal Energy Regulatory Commission, the Department of Energy, and the California Energy Commission. This participation has included the submission of extensive expert witness testimony, briefs, and comments regarding the need and efficacy of proposed electrical transmission projects. Accordingly, the comments provided herein constitute "substantial evidence" as that term is defined by the CEQA Statute [California Public Resources Code §21080(e)(1)] and CEQA Guidelines [California Code of Regulations Section 15064(f)(5)].

A UTILITY SCALE BESS IS NOT PERMITTED AS AN ACCESSORY AGRICULTURAL USE.

Section 22.16.030.C.2 of the Los Angeles County Code (Code) identifies the land uses that may be established as accessory uses on agriculturally zoned property; a land use that is not enumerated as a permissible accessory use in Section 22.16.030.C.2 cannot be established as an accessory use on agriculturally zoned property. Notably, Section 22.16.030.C.2 *does not* authorize utility scale energy storage devices as a permitted accessory use in agricultural zones (in fact, Section 22.16.030.C.1 expressly prohibits "energy storage devices" used for renewable energy integration as a permitted principal use in agricultural zones - See Figure 1). Because the Zoning Code does not permit utility

[1] CAISO operates very few SCE subtransmission facilities; however, CAISO does control the Antelope-Bailey 66 kV subtransmission line. https://www.caiso.com/documents/jan17_2014_answer-complaint-calwea_el14-14-000.pdf Attachment D. https://elibrary.ferc.gov/eLibrary/filedownload?fileid=01BF20F2-66E2-5005-8110-C31FAFC91712

Figure 1. Excerpt from the Zoning Code that Prohibits BESS in Agricultural Zones.

22.16.030 - Land Use Regulations for Zones A-1, A-2, O-S, R-R, and W.

A. General. This Section prescribes the land use regulations for Zones A-1, A-2, O-S, R-R, and W.

B. Permit and Review Requirements. Table 22.16.030-A, below, identifies the permit or review required to establish each use listed in Subsection C, below.

EXPAND

TABLE 22.16.030-A: PERMIT AND REVIEW REQUIREMENTS		
Abbreviation	**Permit or Review Requirement**	**Reference**
-	Not Permitted	
P	Permitted	
AP	Animal Permit	Chapter 22.152
CEM	Cemetery Permit	Chapter 22.154
CUP	Conditional Use Permit	Chapter 22.158
MCUP	Minor Conditional Use Permit	Chapter 22.160
EP	Explosives Permit	Chapter 22.164
SPR	Ministerial Site Plan Review	Chapter 22.186
SEP	Special Events Permit	Chapter 22.188
SMP	Surface Mining Permit	Chapter 22.190

C. Use Regulations.

1. Principal Uses. Table 22.16.030-B, below, identifies the permit or review required to establish each principal use.

EXPAND

TABLE 22.16.030-B: PRINCIPAL USE REGULATIONS FOR AGRICULTURAL, OPEN SPACE, RESORT AND RECREATION, AND WATERSHED ZONES						
	A-1	**A-2**	**O-S**	**R-R**	**W**	**Additional Regulations**
Agricultural and Resource-Based Uses						
Any use owned and maintained by the Forest Service of the United States Department of Agriculture, and any authorized leased use designated to be part of the Forest Service overall recreational plan of development	-	-	-	-	SPR [1]	
Aqueducts	-	-	CUP	-	-	
Renewable Energy Uses						
Energy generating or storage devices, including but not limited to solar, wind, or geothermal devices	-	-	CUP	-	-	
Utility-scale solar energy facilities, ground-mounted	-	CUP	-	CUP	-	Section 22.140.510
Utility-scale solar energy facilities, structure-mounted	P	P	-	P	-	Section 22.140.510
Utility-scale wind energy facilities	-	-	-	-	-	

scale BESS facilities as accessory uses in agricultural zones, the Department of Regional Planning exceeded its authority under the Zoning Code and thereby abused its discretion when it approved Project No. PRJ2023-002405-(5) with a utility scale BESS as an accessory use.

REGIONAL PLANNING "POLICY" CITED BY STAFF ACTUALLY DEMONSTRATES THAT THE BESS IS NOT PERMITTED AS AN ACCESSORY USES IN AGRICULTURAL ZONES.

The RPC hearing package states on page 1 of "Exhibit B" that the proposed utility scale BESS is an *accessory use* and not a *principal use*; this fact was also articulated by Planning Staff at the hearing on August 20, 2025. In comments during the hearing, SORT pointed out that the Zoning Code does not permit utility scale BESS facilities in agricultural zones as either an accessory use or a principal use. In response to these comments, Planning staff stated that, under current Regional Planning "policy", a BESS "is considered similar to the electrical distribution substation which currently requires a CUP in A-2 zone" [time stamp 46:32]. Aside from the fact that this "policy" is technically deficient and lacks evidentiary basis (as described below), if we nevertheless accept it as true, then this "policy" further proves that a BESS is not permitted as an accessory use in any agricultural zone because the Zoning Code permits Electrical Distribution Substations with a CUP in agricultural zones *only as a principal* use (see Section 22.16.030). The Zoning Code *does not* permit Electrical Distribution Substations as an accessory use in agricultural zones under any circumstance (not even with a CUP); therefore, utility scale BESS are not permitted as an accessory use in agricultural zones under any circumstance. So, even if the "policy" were correct in asserting that a utility scale BESS facility is "similar" to an Electrical Distribution Substation (a point which SORT *does not* concede), then the "Policy" precludes the County from approving a utility scale BESS as an accessory use in an Agricultural Zone because Electrical Distribution Substations are not permitted as an accessory use in agricultural zones. Accordingly, the "Policy" clearly demonstrates that the RPC exceeded its authority and abused its discretion when it approved a utility scale BESS facility as an accessory use on the agriculturally zoned subject property.

THE REGIONAL PLANNING POLICY DECLARING UTILITY SCALE BESS FACILITIES TO BE "SIMILAR" TO ELECTRICAL DISTRIBUTION SUBSTATIONS IS NOT BASED ON SUBSTANTIAL EVIDENCE AND IS TECHNICALLY DEFICIENT.

Although it is not mentioned anywhere in the RPC Hearing Package, the "Policy" that Planning Staff invoked at the August 20 hearing which declares BESS facilities to be "similar" to Electrical Distribution Substations is found in "Subdivision And Zoning Ordinance Interpretation No. 2021-03 – Battery Electric Storage Systems" (Memo 2021-03) a copy of which is provided in Attachment 1. As SORT has previously explained to the Board[2], Memo 2021-03 is rife with error, it is technically deficient, and it lacks evidentiary basis; specific deficiencies are enumerated in Attachment 2. Accordingly, the RPC abused

[2] See pages 8-10 of SORT's protest of the proposed Franchise Agreement for the Humidor Transmission Line filed on October 27, 2024. https://file.lacounty.gov/SDSInter/bos/supdocs/196455.pdf

its discretion when it approved the project with a utility scale BESS because the "policy" invoked by staff and relied upon by the Commission to approve the project is not supported by substantial evidence.

EVEN IF MEMO 2021-03 WERE TECHNICALLY COMPETENT, ITS APPLICATION IS LIMITED AND DOES NOT EXTEND TO AGRICULTURAL ZONES.

As the Board is aware, SORT is in litigation with the County regarding the application of Memo 2021-03 to utility scale BESS facilities in certain zones. The trial was convened on July 17, 2025 and although no final judgement has yet been entered, remarks made by the Court during the hearing suggest that the judgement will limit the applicability of Memo 2021-03 to just those zones in which the Zoning Code authorizes the County to approve unlisted uses when they are found to be similar to listed uses. These facts, coupled with the fact that the Code does not permit any unlisted uses in agricultural zone even if they are similar to listed uses, demonstrate that the utility scale BESS approval will not withstand judicial review.

THE NOISE IMPACT ASSESSMENT IS DEFICIENT AND VIOLATES CEQA.

SORT's comments on the project before and during the August 20 hearing addressed numerous deficiencies in the noise impact assessment upon which the Initial Study is based. For instance, the Initial Study incorrectly asserts on pages 79 and 80 that the Solar/BESS project is subject to the 75 dBA construction noise standard set forth in Section 12.08.440. However, the 75 dBA construction noise standard only applies to short term construction projects lasting 10 days or less; therefore, the 75 dBA construction noise standard *does not* apply because construction activities on the Solar/BESS Project will persist for more than 10 days. Nonetheless, the developer told the RPC that SORT was incorrect, that the 75 dBA applies to all construction activities throughout the County, and that the Health Department made this clear when they "approved" the developer's Noise Analysis. All of these statements by the developer are incorrect. As clearly set forth on page 3 of the Health Department Letter dated May 15, 2024, both Regional Planning and the developer were informed that the 75 dBA standard only applies to construction projects lasting 10 days or less (see Attachment 3). Moreover, the Health Department did not "approve" the developer's noise analysis; to the contrary, the Health Department observed that the developer may need to mitigate construction noise by constructing noise barriers to protect surrounding residences (see page 6). Regional Planning ignored these comments and did not incorporate them into the "Mitigation Monitoring and Reporting Program".

During the hearing, SORT also explained that, because the Solar/BESS project construction activities do not qualify for the 75 dBA construction noise standard, the more stringent "Noise Level" standards set forth in Section 12.08.390 apply. These "Noise Level"

standards were clearly enumerated by the Health Department[3] and they limit the "Noise Level" that can be experienced by the nearest residential receptor as follows:

- At no time shall the exterior noise levels exceed 50 dBA for a cumulative period of more than 30 minutes in any hour; this is referred to as the "L50" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 50 dBA more than 50% of the time.

- At no time shall the exterior noise levels exceed 55 dBA for a cumulative period of more than 15 minutes in any hour; this is referred to as the "L25" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 55 dBA more than 25% of the time.

- At no time shall the exterior noise levels exceed 60 dBA for a cumulative period of more than 5 minutes in any hour; this is referred to as the "L8.3" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 60 dBA more than 8.3% of the time.

- At no time shall the exterior noise levels exceed 65.9 dBA for a cumulative period of more than 1 minute in any hour; this is referred to as the "L1.7" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 65.9 dBA more than 1.7% of the time.

- At no time shall the exterior noise level ever exceed 83.1 dBA; this is referred to as the "L0" Noise Level standard because it ensures that a sensitive receptor is *never* exposed to excessive noise levels exceeding 83.1 dBA.

During the hearing, SORT explained that the developer's construction noise analysis is heavily biased and substantially understates actual noise levels because the developer's noise model assumes (improperly) that construction noise is only generated at the center of the project site rather than throughout the project site. The developer's noise analysis openly acknowledges that "construction activities would occur throughout the Project Site" (page 16) and "equipment would operate throughout the Project Site and not at a fixed location" (page 17); nonetheless, the model assumes all construction equipment operates only "at the center of the Project" (pages 17 and 18). With this assumption, the developer claims that the nearest sensitive receptor is 718 feet from any construction noise sources (see page 18) when in fact the nearest receptor is 130 feet from construction noise sources. Equally problematic, the noise levels reported in Table 6 are not the *actual* peak noise levels that will be generated by project construction; rather they are merely *average* construction noise values which were calculated by taking the mean of all noise levels over a specific time period[4]. These average noise levels are known as "Equivalent Noise Levels"

[3] See Table 5 in the Health Department Letter dated May 15, 2024 provided in Attachment 4.
[4] The developer's noise analysis fails to disclose the interval of time over which these noise insults were averaged; it could be 15 minutes or 1 hour or 8 hours. This is another significant deficiency.

or "L_{eq}" values. And, because "L_{eq}" values represent an average of all noise insults that occur, they are always much lower than the *actual* peak noise levels experienced by sensitive receptors. Importantly, County Noise Standards are not based on average L_{eq} noise values; rather, they are based on either "maximum" noise values (like the 75 dBA construction noise standard[5]) or on the L50, L25, L8.3, L1.7, and L0 "Noise Level" values described above. Accordingly, the L_{eq} values reported in Table 6 of the developer's Noise Analysis cannot be used to assess whether construction activities will comply with County Noise Standards.

Fortunately, more detailed information is provided in "Appendix A" of the developer's noise analysis and it indicates that project construction activities *will not* comply with the County's L50, L25, L8.3, or L1.7 Standards. Specifically, Appendix A provides the output from the developer noise model on page 8, and it reports that the "Slurry Trenching Machine" and "All Other Equipment" will have an acoustical usage factor of 50%, and generate a maximum receptor noise level exceeding 57 dBA; this means that, at least 50% of the time, these devices will generate noise levels exceeding the L50 Standard of 50 dBA at all receptors within 718 feet. Similarly, the "Tractor", "Excavator", "Dozer" and "Front End Loader" equipment all have a 40% usage factor and will generate maximum receptor noise levels exceeding 57 dBA; this means that at least 25% of the time, these devices will generate noise levels exceeding the L25 Standard of 55 dBA at all receptors within 718 feet. Finally, the "Impact Pile Driver" (which will be deployed everywhere on the site to construct all the footings for the solar panel racks) will have a 20% usage factor and generate a maximum receptor noise level exceeding 78 dBA; this means that pile driver operations will generate noise levels that exceed the L8.3 Standard of 60 dBA and the L1.7 Standard of 65.9 dBA at all receptors within 718 feet. The developer obfuscates these facts by first improperly reporting averaged L_{eq} noise data in Table 6 rather than actual "Noise Levels" (as defined by Section 12.08.250) and then analyzing these "Noise Levels" in a manner that is consistent with Chapter 12.08.

Importantly, the noise model outputs reported on page 8 of Appendix A assume that the nearest sensitive receptor is 718 feet from construction activities when in fact, the nearest residence is less than 150 feet from construction activities. This means that the *actual* construction noise levels which will be experienced by *actual* sensitive receptors will be much higher than what is projected. For instance, page 8 of Appendix A reports that the "Impact Pile Driver" will generate maximum noise levels of 101 dBA at a distance of 50 feet and 78.2 dBA at a distance of 718 feet. Accordingly, pile driver operation will result in a 93 dBA noise level at the residence located 130 feet from the construction area[6] which substantially exceeds ***all*** county noise standards.

[5] The developer incorrectly asserts in Table 6 that the 75 dBA construction noise standard established by Section 12.08.440 is an average "Leq" standard; to the contrary, the plain language of Section 12.08.440 clearly proves that 75 dBA is a *maximum* noise standard, not an *average* noise standard.

[6] This assumes a geometric attenuation rate of 6 dBA of distance doubled given that there is little vegetation on the project site to absorb noise and there are no structures or barriers to shield noise.

Furthermore, page 8 of Appendix A states that maximum noise levels within 718 feet of pile driver operations will exceed the 75 dBA maximum construction noise standard which the developer claims is both applicable to the project and met by the project. In other words, if the 75 dBA maximum construction noise standard *did* apply to the Solar/BESS project (which it does not), the data provided in Appendix A proves that this 75 dBA standard will be exceeded at all locations within 718 feet of "Impact Pile Driver" operations.

These facts prove that the Solar/BESS Project construction activities will violate all applicable County Noise Standard and thus result in significant noise impacts for which no mitigation measures are provided. Because the Mitigated Negative Declaration that was certified by the RPC on August 20, 2025 ignores these impacts, it violates CEQA.

SORT cannot overstate how devastating it is to experience the persistent noise generated by a nearby pile driver operating 10 hours per day, six days per week; some of our members in the Antelope Acres community have been so affected by the constant pile driver noise from construction on the thousands of acres of solar farms which surround this community that they wished they could have relocated to a hotel for a few months but they could not afford to do so. The County must protect surrounding residents and businesses from the relentless and terribly disruptive construction noise that will be generated by the Solar/BESS project and for which Regional Planning failed to impose any mitigation measures.

SORT is also concerned that the developer's Noise Analysis fails to properly assess the operational noise impacts that will result from the Solar/BESS project. Specifically, The developer's BESS noise impact assessment is not based on actual noise source data obtained from the BESS and inverter manufacturers; instead, it cites to an EIR prepared by Kern County for a solar project years ago which claims that the most significant noise source at a BESS facility is the HVAC equipment at only 52.3 dBA (see page 20); this is incorrect. The most significant noise sources at a utility scale BESS development aside from system transformers are the PCS units/inverters (which typically exceed 95 dBA) and the BESS units themselves (which typically exceed 80 dBA)[7]. Next, the developer claims that the 52.3 dBA noise level generated by the BESS will drop by 8 dBA at the nearest residence located 130 feet away. However, the actual BESS operating noise level will be closer to 80 dBA and thus it will drop to 72 dBA at the nearest residential receptor which exceeds the County's Noise in County Code Section 12.08.390 and is therefore "significant". SORT has similar concerns with the developer's assessment of transformer noise impacts which were also developed without actual noise source data from the manufacturer. Fortunately, these noise impacts could perhaps be mitigated by relocating the BESS and transformers.

[7] See the source data for the BESS units that will be used for the Angeleno project found on the last page here: https://efiling.energy.ca.gov/GetDocument.aspx?tn=264397&DocumentContentId=101237

Finally, SORT observes that the noise impacts reported by the developer do not comply with CEQA's requirement to assess the "direct effects" of the Solar/BESS project which are defined as "effects which are caused by the project and occur at the same time and place" as the project [CEQA Guidelines Section 15358]. For instance, the *average* "L_{eq}" noise data reported by the developer do not reflect *actual* (peak) noise levels at the "same time" they occur; additionally, the developer's noise model pretends that noise only emanates from the *center* of the project site and not from the *actual* "same place" where they occur. In other words, because the developer's average L_{eq} results do not represent *actual* noise effects at the "same time and place" that they occur, it does not satisfy the County's CEQA obligations to assess "direct" noise effects.

For all these reasons, the developer's Noise Impact Assessment that is relied upon by the Initial Study and the Mitigated Negative Declaration is substantially flawed, it applies incorrect compliance standards, it is based on specious assumptions, it fails to report actual noise results, it fails to report noise impacts in the requisite L50, L25, L8.3, and L1.7 format, and it violates CEQA. Moreover, Appendix A demonstrates the project will violate every County Noise Standard; therefore, the Solar/BESS Project will result in significant noise impacts that are improperly ignored by the Mitigated Negative Declaration.

THE MITIGATED NEGATIVE DECLARATION FAILS TO ADDRESS SIGNIFICANT WILDFIRE RISKS POSED BY THE SOLAR/BESS PROJECT.

The Mitigated Negative Declaration concludes that the Solar/BESS project will have no significant wildfire impacts because, according to page 100 of the Initial Study, the project is not in a Very High Fire Hazard Severity Zone and the BESS has redundant fire safety measures that reduce fire risks to a level that is not significant. These statements are incorrect. The project site is in a Very High Fire Hazard Severity Zone[8] and there are no redundancies built into any BESS fire safety measures that render its fire risk to be insignificant[9]. In fact, BESS design standards *assume* that BESS units will deflagrate! For example, UL9540A (which is the primary BESS fire certification protocol) establishes that a BESS system meets all certification criteria as long as it does not ignite an adjacent BESS container when it deflagrates[10]. Because the project is in a Very High Fire Hazard Severity Zone and the BESS component is susceptible to deflagration, the Project poses a significant wildfire risk which is completely ignored by the Mitigated Negative Declaration.

---

[8] On July 22, 2025, the County Board of Supervisors adopted Ordinance No. 2025-0027 to incorporate new fire zone maps into the County Code. These fire zone maps clearly depict that the project site is in a Very High Fire Hazard Severity Zone. https://file.lacounty.gov/SDSInter/bos/supdocs/205592.pdf

[9] This fact was recently confirmed in a report issued by the California Public Utilities Commission which states every component of a lithium BESS unit is "a potential point of failure—the risk of which can be minimized via quality control, testing, and ongoing monitoring and maintenance but cannot be entirely eliminated". *CPUC Energy Storage Procurement Study: Safety Best Practices*. Attachment F at page F-6. https://lumenenergystrategy.com/uploads/1/3/6/3/136375767/2023-05-31_lumen_energy-storage-procurement-study-report-attf-final.pdf .

[10] Under UL 9540A, a BESS unit is certified if "there is no flaming beyond outer dimensions of BESS unit".

THE MITIGATED NEGATIVE DECLARATION FAILS TO ADDRESS SIGNIFICANT AIR QUALITY AND HAZARDOUS EMISSION RISKS POSED BY THE SOLAR/BESS PROJECT.

The Mitigated Negative Declaration concludes that the Solar/BESS project will not result in any significant air quality or hazardous emission impacts because page 28 of the Initial Study states that project operations will not result in toxic air contaminant (TAC) emissions and page 65 states that no accident at the Solar/BESS Project could result in any hazardous material releases into the environment because "there are no recognized environmental conditions" at the project site. These superficial analyses ignore the propensity of Lithium BESS units to release significant quantities of toxic gases (HF, HCN, HCL) whenever they deflagrate; these circumstances *always* endanger the surrounding populations and *always* compels shelter in place and evacuation orders. A single BESS unit deflagration can release more than 2,000 points of toxic HF gas in concentrations that are deadly[11]. Yet, and incredibly, the Mitigated Negative Declaration *completely ignores* the toxic emission potential of the proposed BESS units. Worse yet, the applicant provided erroneous testimony before the Planning Commission to argue that the BESS units do not pose a hazard risk because they "are a lithium iron phosphate composition where there's no hazardous materials in that composition" [Time stamp 44:01]. This statement is incorrect. As explained in Attachment 5, Lithium Iron Phosphate batteries are just as prone to deflagration and toxic emissions as other Lithium-based batteries. Because the Mitigated Negative Declaration completely ignores the significant and unmitigable toxic emission risks posed by the BESS, it substantially violates CEQA.

THE MITIGATED NEGATIVE DECLARATION FAILS TO ADDRESS SIGNIFICANT WATER RESOURCE DEFICIENCIES OF THE SOLAR/BESS PROJECT.

The BESS units that are included in the project will utilize a lithium battery chemistry and will therefore be prone to deflagration and explosion. And, when deflagration occurs, the only action that can be taken by emergency responders is to allow the BESS units to simply burn themselves out in a process that takes days and even weeks. Throughout this lengthy deflagration process, hundreds of thousands of gallons of water must be applied to the area surrounding the burning BESS to prevent the fire from igniting surrounding vegetation or adjacent structures. This is a particularly significant concern given that the project site is in a designated Very High Fire Hazard Severity Zone[12] and frequently experiences high winds.

The Mitigated Negative Declaration concludes that the Solar/BESS project will have no significant environmental impacts because, among other things, the Antelope Valley East Kern Water Agency (AVEK) will provide the development with adequate water resources

[11] A study published by *Nature* reports that 20 - 200 mg of HF are released per watt-hour of discharge capacity in Lithium Ion batteries; this is equivalent to 20-200 kilograms (or 44-440 pounds) of HF per MWh. https://www.nature.com/articles/s41598-017-09784-z. For a BESS unit with a discharge capacity of 5 MWh, the HF releases would be as high as 2,200 pounds.

[12] On July 22, 2025, the County Board of Supervisors adopted Ordinance No. 2025-0027 to incorporate new fire zone maps into the County Code. These fire zone maps clearly depict that the project site is in a Very High Fire Hazard Severity Zone. https://file.lacounty.gov/SDSInter/bos/supdocs/205592.pdf

(see page 98 of the Initial Study). However, the project site is not served by AVEK and there are no water lines extending from AVEK to the project site. SORT has confirmed with AVEK that AVEK is not familiar with the Solar/BESS project and has issued no "Will Serve" letter for the Solar/BESS project. Therefore, and contrary to what the Initial Study asserts, the Solar/BESS project *will not* receive municipal water service, so a new water well will have to be drilled to meet the significant water needs of the Solar/BESS project. SORT understands that, because the project is located in an adjudicated basin, the developer will be required to obtain a well permit from the Antelope Valley Watermaster. And, even if a new well permit is issued, and the well yield is sufficient to fill the developer's 10,000 gallon water tank, *that will not be sufficient to provide the hundreds of thousands of gallons of water that will be needed when a BESS fire occurs*. This in turn substantially increases the already significant wildfire risk posed by the BESS.

Nothing about what the Initial Study and Mitigated Negative Declaration concludes regarding water resources is correct. And contrary to what these documents assert, the project ***will*** require the construction of new water facilities which will certainly have the potential to result in significant environmental impacts and *may not even be possible.* Moreover, the intrinsic wildfire ignition risk posed by the BESS will be further amplified if the project is unable to secure sufficient water resources to withstand a prolonged BESS fire event. The Mitigated Negative Declaration substantially violates CEQA because it completely ignores these impacts.

REGIONAL PLANNING MAY HAVE IMPROPERLY SEGMENTED THE SOLAR/BESS PROJECT IN VIOLATION OF CEQA WHEN IT APPROVED THE CUP SEPARATELY FROM ANY REQUISITE FRANCHISE AGREEMENT

As explained above, there is virtually no information provided regarding the Solar/BESS Project gen-tie line so it cannot be ascertained whether the developer is required to secure a Franchise Agreement from the County. However, it is certain that a Franchise Agreement is required if the developer is constructing any portion of the gen-tie line in a County Right of Way. Under such circumstances, the Franchise Agreement and the gen-tie line are integral components of the Solar/BESS development and together, they form the "whole" project; yet, the hearing package makes no mention of any Franchise Agreement. Accordingly, if a Franchise Agreement is required, it can only be concluded that the County intends to process and approve the Franchise Agreement as a project that is separate from, and independent of, the Solar/BESS project. However, this violates the fundamental CEQA requirement to consider the "whole" project and not segment it into smaller components that are individually reviewed and approved [CEQA Guidelines Section 15003(h)]. To correct this deficiency the County must process the CUP and the Franchise Ordinance together as a single action.

ATTACHMENT 1.

SUBDIVISION AND ZONING ORDINANCE INTERPRETATION NO. 2021-03 – BATTERY ELECTRIC STORAGE SYSTEMS.

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Amy J. Bodek, AICP
Director of Regional Planning

Dennis Slavin
Chief Deputy Director,
Regional Planning

October 18, 2021

TO: Staff

FROM: Amy J. Bodek, AICP
Director of Regional Planning

SUBDIVISION AND ZONING ORDINANCE INTERPRETATION NO. 2021-03 – BATTERY ELECTRIC STORAGE SYSTEMS

PURPOSE

This memorandum provides an official interpretation of the Department of Regional Planning regarding the definition of utility-scale energy storage devices (Energy Storage Devices). This memorandum is intended to serve as interim guidance for staff until such interpretation is superseded by subsequent interpretations or is incorporated into Title 22 (Planning and Zoning) of the the Los Angeles County Code (County Code).

APPLICABILITY

This memorandum is applicable to all parcels within unincorporated Los Angeles County and is effective as of the date of this memo.

INTERPRETATION

County Code Section 22.14.050 defines "Electric Distribution Substation (EDS)" and "Electric Transmission Substation (ETS)." The primary difference between these uses pertains to the conveyance of energy to users, with ETS typically being larger in volume than EDS. For purposes of defining energy storage devices as a land use, energy storage devices shall be considered most similar to EDS.

BACKGROUND

With the recent growth in renewable energy production, particularly utility-scale solar and wind resources, there has been an increased need in the development and deployment

of Battery Electric Storage Systems (BESS). These devices are essentially large battery systems with appurtenant equipment that store energy typically produced by renewable energy sources such as sunlight or wind. This energy is then released to the electrical grid during evening or peak periods, and can help even out imbalances that occur between the production and consumption of renewable energy.

BESS devices are similar in size, bulk, and use to EDS. These utility-like devices are typically comprised of 40-foot-by-8-foot steel containers on concrete pads to house battery systems, pad-mounted transformers, and switchgear.

JUSTIFICATION

EDS are allowed in all zones with either a Site Plan Review (SPR) or a Conditional Use Permit (CUP), except the Mixed Use Development Zone where it is prohibited. ETS are allowed only in commercial and industrial zones with a CUP and SPR respectively and in Open Space and Watershed Zones with an SPR. Unlike the conduit nature of transmission substations, BESS are more similar to EDS.

In conclusion, to regulate these facilities in a consistent manner and to properly regulate them for community compatibility, the use most closely associated with them shall be EDS. Development standards for EDSs, Section 22.140.200, shall apply to BESS.

AJB:DJD:MG:SD:lm

C: Starr Coleman, Assistant County Counsel
Elaine Lemke, Assistant County Counsel/Chief Advisor

K_CP_10132021_ SUB_ ZONING_ORDINANCE_INTERPRE_NO_2021-03_BATTERY_ELLECTRIC_STORAGE_SYSTEMS

ATTACHMENT 2.

ERRORS AND TECHNICAL DEFICIENCIES NOTED IN SUBDIVISION AND ZONING ORDINANCE INTERPRETATION NO. 2021-03 – BATTERY ELECTRIC STORAGE SYSTEMS.

SORT has analyzed "Zoning Ordinance Interpretation No. 2021-03" ("Interpretation") adopted by the Department of Regional Planning and found that it includes only four statements and very little relevant information to support its conclusion that the use which is "most closely associated" with BESS facilities "shall be an Electrical Distribution Substation". As explained below, these four statements are so rife with technical errors that they suggest Regional Planning does not even have a rudimentary understanding of electrical grid and distribution system operations. This lack of knowledge has resulted in an "Interpretation" which make statements that are factually incorrect and draws inferences that are completely erroneous; accordingly, the conclusions it presents are without basis and not supported by substantial evidence.

Statement 1: "The primary difference between Electrical Distribution Substations and Electrical Transmission Substations pertains to the conveyance of energy to users". This statement is materially false. Electrical Transmission Substations are integrated high voltage (> 200 kV) energy nodes within the bulk power grid and are subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC); they effect huge power transfers across the state and the nation and within California, they are controlled by the California Independent System Operator (CAISO). In contrast, Electrical Distribution Substations operate at low voltages, they are not part of the bulk power grid, they are locally controlled and operated by utilities, and FERC asserts no jurisdiction over them. The loss of an Electrical Transmission Substation can black out whole areas of the country, whereas the loss of an Electrical Distribution Substation will only affect a handful of circuits and the customers they serve.

Because it only has jurisdiction over transmission facilities and has no jurisdiction over distribution facilities, FERC has had to develop standard procedures for distinguishing between transmission facilities and distribution facilities. Toward this end, FERC has developed two tests for establishing the *actual* difference between an "Electrical Transmission Substation" and an "Electrical Distribution Substation", and contrary to what the "Interpretation" asserts, the answer *does not* hinge on "conveyance of energy to users". The first test is called the "5 factor Mansfield Test"[1] which assesses the fundamental characteristics of an electrical facility to determine whether it is "transmission" or "distribution"; the "5 factor Mansfield Test" definitively establishes that the Humidor Transmission BESS is a transmission asset[2] and therefore nothing

---

[1] Opinion No. 454, 97 FERC ¶ 61,134 (2001); Opinion No. 454-A, 98 FERC ¶ 61,115 (2002).

[2] Opinion 454 establishes that electrical facilities are "transmission" if 1) They "loop back" into the transmission system and therefore provide power to the transmission system; 2) Power flows in two directions; 3) they serve transmission customers; 4) They provide benefits to the transmission grid in terms of reliability and whether the facilities can be relied on for coordinated operation of the grid; and 5) Whether an outage on the facilities would affect the transmission grid. FERC has determined that electrical facilities which meet any of these criteria are transmission facilities. The Humidor BESS meets ***all*** of these criteria. Humidor BESS puts power into the transmission system. Humidor BESS generates power *(continued)*

akin to an "Electrical Distribution Substation". The second test is called the "7 factor test"[3], and application of this test again definitively establishes that the Humidor Transmission BESS is nothing like an "Electric Distribution Substation[4]. In other words; adopted FERC orders prove that there is nothing accurate or honest in Regional Planning's statement that "The primary difference between Electrical Distribution Substations and Electrical Transmission Substations pertains to the conveyance of energy to users".

Statement 2: "Electrical Transmission Substations are typically larger in volume than Electrical Distribution Substations".
This statement does not even make sense: Electrical substations are not categorized based on "volume"; they are categorized based on their operational voltage and the purpose that they serve. This statement has no evidentiary basis.

Statement 3: "BESS devices are similar in size, bulk, and use to Electrical Distribution Substations".
This statement has *no* evidentiary basis because it is categorically false. BESS facilities can be enormous (for example, the Angeleno BESS proposed in Acton is more than a mile long); in contrast, Electrical Distribution Substations are quite small (Acton's

---

(continued) flows in two directions (from the grid and to the grid). Humidor BESS serves transmission customers by putting power onto the transmission grid. Humidor BESS provides reliability and other transmission grid benefits (in fact, that is its core purpose). An outage of the Humidor BESS can affect the transmission grid because it would force curtailment of renewable resources.

3 FERC Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996) [https://www.ferc.gov/sites/default/files/2020-05/rm95-8-00w.txt at p. 402].

4 Order 888 establishes that electrical facilities are "distribution" if 1) they are in close proximity to retail customers; 2) they are radial in character; 3) power flows into the facilities and rarely (if ever) flows out; 4) Power that flows into the facilities are not transported to some other market; 5) Power flowing into the facilities is consumed in a comparatively restricted geographical area; 6) there are meters placed at the at the facility interface with the transmission grid to measure flows into the local distribution system; and 7) they operate at reduced voltage. To qualify as a distribution facility, ***all*** of these criteria must be met. The Humidor BESS does not meet any of these criteria. It is not located in close proximity to retail customers; in fact, it does not serve any retail customers at all. It does not have a radial configuration and is not "radial in character"; to the contrary, it is a single point user. Its power flow is bi-directional and significant power flows out of the Humidor BESS (in fact, that is its core purpose). The power that flows into the Humidor BESS storage facilities will be transported to some other market once it flows back out onto the transmission grid. Power flowing into the Humidor BESS is merely stored and not consumed at all; thus, it is not "consumed in a restricted geographical area". The Humidor BESS does not provide power flows into the local distribution system so it has no meters to measure flows into the local distribution system; in fact, it provides no "interface" at all between the transmission system and the distribution system. The Humidor BESS receives and emits power at a high voltage and while it *stores* power onsite at a low (34.5 kV) voltage, it does not *operate* at a low voltage.

occupies less than 1.25 acres). Moreover, BESS facilities are typically very bulky because they consist of large "storage containers" of battery cells that are all closely packed together (as shown in Figure 1). In contrast, Electrical Distribution Substations are low density open air facilities which, as shown in Figure 2, have considerably less "bulk" than a BESS. The reason Electrical Distribution Substations *are not* bulky like BESS facilities is because they must maintain large separation distances between electrical equipment to prevent electrical faults. Finally, the sole purpose of a BESS is to collect and store electrical energy when it is cheap and readily available and then discharge the energy onto a grid when energy is expensive and less available. In contrast, Electrical Distribution Substations continually accept power from the subtransmission grid and route it to distribution customers after transforming it to a low (< 50 kV) voltage. There are absolutely no similarities between a BESS use and an "Electrical Distribution Substation" use and this statement has no basis in fact.

Figure 1: Humidor Transmission BESS Facility.



Source: Simulation provided by Hecate.

Figure 2: Electrical Distribution Substation that serves the Community of Acton



Source: Google Earth.

Statement 4: "Electrical Transmission Substations are allowed only in commercial and industrial zones with a Conditional Use Permit and Site Plan Review respectively". This statement is incorrect. Electrical Transmission Substations *are not* allowed in "Light Industrial" Zones with just a Site Plan Review; to the contrary, they require a Conditional Use Permit (see Zoning Code Section 22.22.030.C).

As explained here, none of the explanations or justifications that Regional Planning provided in the "Interpretation" are substantive; in fact, they are all factually inaccurate. Accordingly, the Interpretation" is not supported by any evidence, let alone substantial evidence. There are other fatal errors noted in the "Interpretation". For instance, it fails to recognize that there are different types of BESS which are integrated and utilized differently; for instance, there are Transmission BESS (such as the Humidor project), subtransmission BESS, and distribution BESS. Even more troubling, the County appears to misclassify "behind the meter" battery units[5] as BESS[6] even though they *are not BESS* because they *do not* put power onto the grid.

Another troubling aspect of the "Interpretation" is that *it is not actually based on a "similarity" standard*; rather it is based on a "most closely associated with" standard. Specifically, the last paragraph states that BESS shall be subject to the same approval thresholds and development standards as Electrical Distribution Substations because an Electrical Distribution Substation is "the use most closely associated with" BESS. Being "closely associated with" a use is not the same thing as being "similar to" that use.

---

[5] A "behind the meter" or "BTM" battery is used to serve onsite load or for "peak shaving" and does not inject power onto any grid. That is why they are placed "behind" the electric meter that serves their location. BTM batteries are *not* BESS.

[6] For example, on page 9 of Enclosure C of the Board Letter dated October 8, 2024, County identifies a very small (1.37 MW) storage unit at Magic Mountain as a BESS even though the unit appears to be a Behind the Meter battery unit that does not put power onto the grid.

ATTACHMENT 3.

EXCERPT FROM THE HEALTH DEPARTMENT LETTER DATED MAY 15, 2024.

3.2 Construction Noise

Ordinance:

12.08.440 Construction Noise

Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited (See Table 2 and 3).

A. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 7:00 p.m.	75 dBA	80 dBA	85 dBA

Table 2. Std = Standard dB that may not exceed.

ATTACHMENT 4.

TABLE 5 FROM THE HEALTH DEPARTMENT LETTER DATED MAY 15, 2024.

Exterior Noise Standards, dBA											
Area Background	Duration	Std # 1 = L50		Std # 2 = L25		Std # 3 = L8.3		Std # 4 = L1.7		Std # 5 = L0	
		30min/hr	Result	15min/hr	Result	5 min/hr	Result	1 min/hr	Result	At no time	Result
Residential	1:47 p.m. – 2:47 p.m.	50	38.5	55	41.7	60	46.3	65	65.9	70	83.1
Commercial	1:47 p.m. – 2:47 p.m.	60	38.5	65	41.7	70	46.3	75	65.9	80	83.1

Table 5. Std = Standard dBA that may not exceed the cumulative period.

ATTACHMENT 5.

LITHIUM IRON PHOSPHATE BATTERY CHARACTERISTICS.

A common misconception that is perpetuated by energy developers is that "Lithium Iron Phosphate" batteries (also known as "LFP", "LFPO", "LiFePO4" and "Lifpo") are "safe" and are not susceptible to explosion, fire, deflagration, or toxic emissions because they are not "Lithium Ion". In fact, the Executive Director of the California Energy Storage Alliance (a consortium of BESS developers[1] that is also known as "CESA") actually declared to the California Energy Commission, land use regulators, and the public that concerns regarding thermal runaway and fire intensity do not apply to LFP BESS![2] These claims are false. According to the U.S. Department of Energy, LFP BESS *are* Lithium Ion BESS[3] because they have lithium in both the anode and the cathode and they store and discharge energy by transferring lithium ions between the anode and the cathode[4]. In fact, the only difference between LFP BESS and other Lithium Ion BESS is that they utilize Iron Phosphate as a cathodic material, whereas other Lithium Ion BESS use a combination of Nickel, Manganese, and Cobalt as cathodic materials (which is why they are referred to as "NMC batteries"). Because *all* Lithium Ion batteries contain lithium and rely on the transfer of lithium ions, they are *all* susceptible to thermal runaway, explosion, deflagration and toxic emissions. Moreover, recent studies conducted by the Underwriters Laboratory Fire Safety Research Institute ("FSRI") demonstrate that LFP BESS are actually more dangerous than NMC BESS; in fact, FSRI showed that LFP BESS fires are ***more intense*** and ***more explosive*** because when thermal runaway occurs, LFP BESS generate far more hydrogen gas and combustible hydrocarbons than NMC BESS[5].

The reason energy developers and industry shills claim that LFP BESS are "safe" is because the thermal runaway initiation temperature of LFP BESS is slightly higher compared to NMC BESS; however, FSRI data reproduced in in Figure 1 indicate that the actual temperature difference is small (less than 80°C). More importantly, when LFP

---

[1] CESA members are all the major Battery Storage System developers and include Hecate, Terra Gen, REV, Vistra, Nextera, Tesla, LG, and many others.

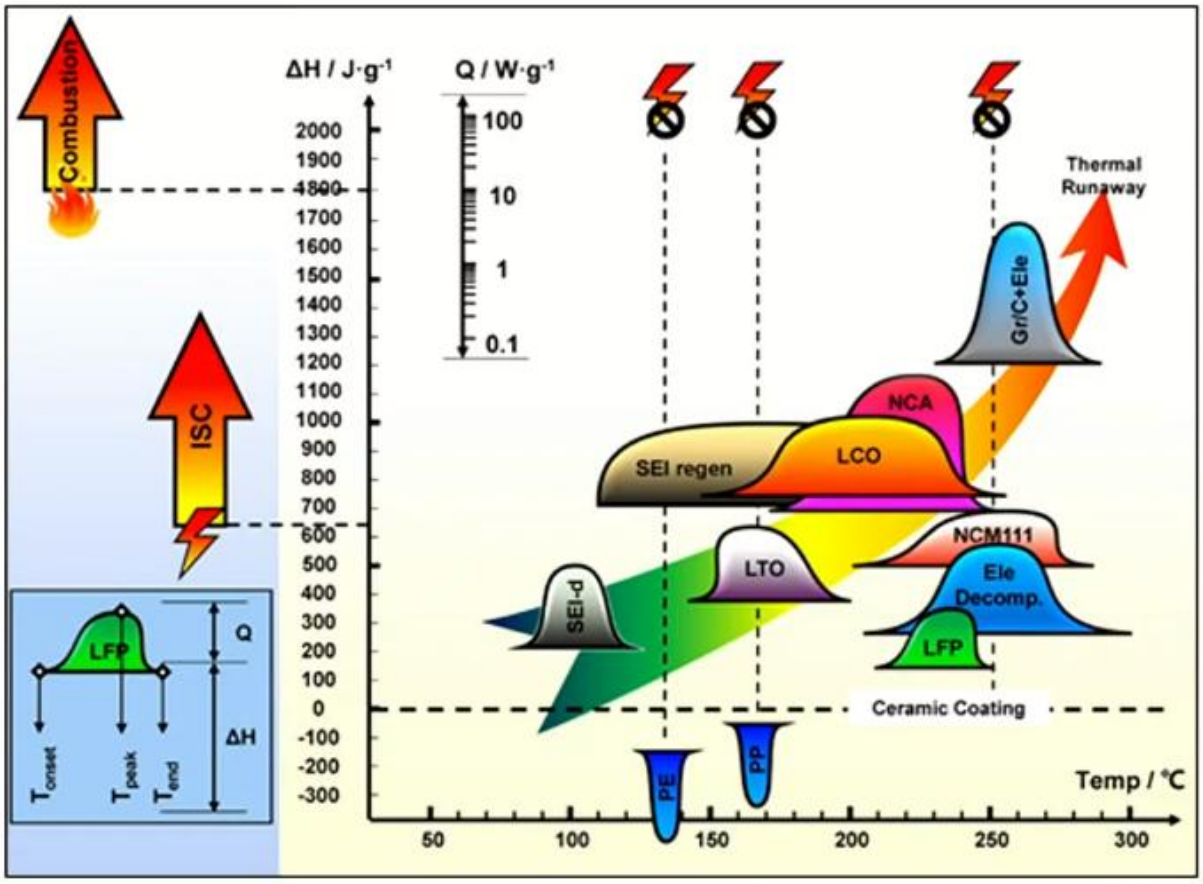
[2] California Energy Commission Staff Workshop on BESS Safety on February 23, 2024; at Timestamp 1:11:38. The recording is available on the California Energy Commission Website (Docket No 24-BSS-01) and is accessible accessed via https://efiling.energy.ca.gov/GetDocument.aspx?tn=254710&DocumentContentId=90335.

[3] According to the DOE's Pacific Northwest Laboratory, "Lithium-ion can refer to a wide array of chemistries, however, it ultimately consists of a battery based on charge and discharge reactions from a lithiated metal oxide cathode and a graphite anode. Two of the more commonly used lithium-ion chemistries [are] Nickel Manganese Cobalt (NMC) and Lithium Iron Phosphate (LFP)" [https://www.pnnl.gov/lithium-ion-battery-lfp-and-nmc].

[4] U.S. Department of Energy article "How Lithium Batteries Work" released February 28, 2023 [https://www.energy.gov/energysaver/articles/how-lithium-ion-batteries-work#:~:text=The%20Basics,vice%20versa%20through%20the%20separator].

[5] LFP batteries release approximately 50% hydrogen and 20% hydrocarbons, whereas NMC batteries release approximately 30% hydrogen and 16% hydrocarbons. *The Science of Fire and Explosion Hazards from Lithium Ion Batteries*. Presentation by Adam Barowy at the UL Fire Safety Research Institute Lithium-Ion Battery Symposium March 2023 [timestamp 18:10]. https://fsri.org/research-update/lithium-ion-battery-symposium-resource-library .

Figure 1. Temperature Trends of Battery Chemistries



Source: *The Science of Fire and Explosion Hazards from Lithium Ion Batteries*. Presentation by Adam Barowy at the UL Fire Safety Research Institute Lithium-Ion Battery Symposium March 2023 [timestamp 13:55]. https://fsri.org/research-update/lithium-ion-battery-symposium-resource-library.

BESS become overcharged, the temperature at which thermal runaway is initiated *is actually lower than the temperature at which thermal runaway is initiated in NMC* BESS[6]. This means that LFP BESS are ***more susceptible*** to thermal runaway than other NMC BESS in overcharge conditions! Furthermore, experiments with fully charged (but not overcharged) LFP batteries show that *the protective barrier between the anode and cathode which is supposed to prevent thermal runaway actually begins to degrade at only 80* °C[7]; this exposes the anode and initiates thermal runaway.

[6] Thermal Runaway can be initiated at only 116 °C in overcharged $LiFePO_4$ batteries. *Study on Temperature Change of $LiFePO_4$/C Battery Thermal Runaway under Overcharge Condition*. Fei Gao et al 2021. Presented at the 3rd International Conference on Air Pollution and Environmental Engineering. IOP Conference Series: Earth and Environmental Science 631. https://iopscience.iop.org/article/10.1088/1755-1315/631/1/012114/pdf

[7] To prevent thermal runaway, lithium ion batteries are equipped with a solid electrolyte interphase film (known as an "SEI film"); however, charged (but not overcharged) LFP batteries have their protective SEI film begin to degrade at temperatures as low as 80°C. *Revealing the Thermal Runaway Behavior of*

Finally, as further proof that LFP BESS are not “safe”, one need only consider the fact that the U.S. Department of Transportation categorizes LFP batteries as Lithium Ion batteries (because they are) and it classifies them as “Dangerous Goods” because of their propensity to spontaneously ignite and emit toxic gases; it even assigns LFP BESS the same UN Number (3536) and DG Classification (Class 9) that it assigns to all other Lithium Ion BESS.

Taken together, these facts facially contradict the myth that LFP BESS are “safe” because they show that LFB BESS are prone to explosion, fire, deflagration, and toxic gas emissions; these facts further demonstrate that, in many ways, LFP BESS are actually *more dangerous* than NMC BESS.

Kimley»Horn

To: Soyeon Choi, Senior Planner
Samuel Dea, Supervising Planner
Los Angeles County Department of Regional Planning

From: Jessie Fan, ENV SP and Heidi Rous

Date: September 25, 2025

Subject: Applicant Response to Save Our Rural Town (SORT) Comments from Ms. Ayer dated September 3, 2025

Comment 1-1

The following analysis supplements Save Our Rural Town's (SORT's) appeal of the Conditional Use Permit (CUP) approved by the Regional Planning Commission (RPC) on August 20, 2025 for Project No. PRJ2023-002405-(5) consisting of a utility scale solar facility and a utility scale Battery Energy Storage System (BESS) on an agriculturally zoned property that is already developed as a single family residence (SFR). According to the developer, the sole source of the electrical energy stored by the BESS facility will be the solar facility; because the BESS facility will be used solely for the integration of renewable energy that is generated onsite, it was approved by Regional Planning as an "accessory use" on the property.

Response 1-1

The project proposes a solar energy facility, which includes multiple components including photovoltaic (PV) solar modules, BESS, underground electrical conductors, Balance of System Equipment, access roads, fencing, water tank, and facilities to interconnect to Southern California Edison's (SCE) existing electrical distribution system. The BESS would store energy produced by the project's PV panels and dispatch energy to the grid and its use is accessory to the solar facility. The BESS would help to stabilize energy supplies and would provide energy generated from solar well into peak-demand evening hours.

The Los Angeles County Code defines an accessory use as "a use customarily incidental to, related, and clearly subordinate to a principal use established on the same lot, which accessory use does not alter said principal use nor serve property other than the lot on which the principal use is located." (County Code Section 22.12.010.) A zoning code cannot practically describe every potential component part of a permitted or conditionally permitted use. For example, zoning codes authorize single-family residences and do not separately list uses commonly associated with a home such as a swimming pool or pergola. Instead, zoning codes provide general descriptions of types of uses and do not attempt to account for all the accessory components which make them up. As such, the Los Angeles County Zoning Code authorizes the broader utility-

scale solar use, which necessarily includes all component parts. The BESS is appropriate, subordinate, and incidental to the project's primary use (BESS component comprises approximately 0.41 acres out of 31 acres, or just 1.3 percent of the solar energy facility). The primary use of a site is a solar farm, the BESS is accessory because it stores extra solar energy and releases it when demand is high or when the sun is not shining. Further, the BESS does not replace the main use of the project, solar energy. It functions to enhance efficiency, reliability, or flexibility of the primary use. The BESS is appropriately, customarily, and necessarily related to the principal use (by stabilizing energy supplies and providing solar energy into peak-demand evening hours), and it does not alter the facility's essential characteristics (producing and transmitting solar energy).

Comment 1-2

No specific information regarding the generation "tie line" (gen-tie) has been provided other than it will be 675 feet long and connect to the grid; therefore, it is not clear if it is tying into the SCE distribution grid at 12 kV or the 66 kV subtransmission line (the "Antelope-Bailey" subtransmission line) owned by Southern California Edison (SCE) and operated by the California Independent Systems Operator (CAISO)[1]. The site plan suggests that the gen-tie is 12 kV, and that it will have to cross 230th Street West which is a County maintained road. If the developer is constructing the gen-tie line, then a Franchise Agreement with the County will be required per County Code Section 22.140.510.E.6.d.vi.

Footnote 1: CAISO operates very few SCE subtransmission facilities; however, CAISO does control the Antelope-Bailey 66 kV subtransmission line. https://www.caiso.com/documents/jan17_2014_answer-complaint-calwea_el14-14-000.pdf Attachment D. https://elibrary.ferc.gov/eLibrary/filedownload?fileid=01BF20F2-66E2-5005-8110-C31FAFC91712

Response 1-2

Utility companies use two types of power lines to move electricity, transmission and distribution. Both are part of the energy grid, but they serve different roles. Transmission lines carry large amounts of high-voltage electricity over long distances from power plants to substations. Distribution lines then deliver lower-voltage electricity from those substations to homes and businesses, completing the journey to consumers. The project would feed electricity directly into the distribution network at lower voltages, which means they would supply power closer to the end users (e.g., homes and businesses) rather than sending it long distances first.

The project does not require a direct interconnection to a substation via transmission level lines. The project would interconnect onto the existing SCE Tejon 12 kV distribution line, and the Tejon line connects to the 12 kV bus at the Neenach Substation. The Neenach Substation is approximately 2 miles east of the project site and located at 20851 W Ave D, Lancaster, CA 93536 on the northeast corner of the 210th St W and W Ave D intersection. The Point of Interconnection is on-site adjacent to the site entrance, and SCE would construct the distribution-sized tie line (gen-tie) to connect the project to the distribution grid at the SW corner of the parcel on the west side of 230th Street. Any electrical facility that is over 1MW is considered a CAISO resource. Distribution system resources are determined at the interconnection level (i.e., line voltage) and with an interconnection agreement. Specifically, the circuit for project interconnection is a 12 kV line which is a distribution level circuit. It is not anticipated that SCE would need a new franchise agreement or an amendment to its existing franchise for project interconnection.

The project will provide power to SCE's Community Renewables Program. The SCE Community Renewables Program provides SCE retail customers (residential or business) with a way to participate in a renewable energy generation project located in their community. SCE customers can subscribe to a portion of a project's output and in return receive credit on their electricity bill for the renewable energy they are getting. The program is part of California's Green Tariff Shared Renewable policy framework that expands access to clean energy. Any SCE customer is eligible to participate, and the project must be in SCE's service territory.

How it works:

1. The customer connects with a developer that is planning or operating a community renewable project to learn about what projects are available in their area.
2. The customer subscribes by signing a contract with the developer that determines the electricity output commitment, the price, and terms of the agreement.
3. Once the project starts generating power and the facility is operational, the customer receives confirmation that they are enrolled on their SCE bill.
4. The customer pays the developer for the portion of the renewable power they subscribed to and receives bill credits on their SCE bill. The customer usually begins receiving credits within 60 days of enrollment or once the facility is operational.

The local benefits include access to clean energy options for people who cannot own their own renewable energy system, potential savings on electricity bills, reduction in their carbon footprint, and support for local energy development. Furthermore, a community solar project stimulates

local investment and generates property tax revenues; increases power resource diversity and enhances resiliency during peak hour demand periods; and, minimizes land use for electrical infrastructure and reduces transmission losses as power is used where it is locally produced. Electricity on the grid doesn't travel point to point. Rather, it is locally consumed first. The electrons flow into the distribution line and are physically used by the nearest electrical loads connected on the line. If the project generates more than local demand at a given time, power flows to substations to serve other distribution and transmission lines.

Community solar facilities are small to medium installations typically less than 20 MW that are connected and located close to and connect to the local electric distribution grids. They serve local residents, businesses, or organizations who subscribe to or buy shares in the project. Subscribers get credits on their electricity bills for their portion of the power produced. In general, the purpose of community solar is to expand access to solar for people who can't install panels on their own property (e.g., renters, shaded roofs).

In comparison, utility-scale solar is larger in scale, usually owned by a utility company or large corporation, and the power produced is sold wholesale (bulk electricity that is bought and sold in the electricity market by generators and energy suppliers before it is delivered to homes and businesses). They connect to the transmission grid and deliver power over long distances. Utility-scale projects often exceed 100 MW and 1,000 acres. The purpose is to generate bulk power, much like traditional power plants, but using solar.

Comment 1-3

A UTILITY SCALE BESS IS NOT PERMITTED AS AN ACCESSORY AGRICULTURAL USE.

Section 22.16.030.C.2 of the Los Angeles County Code (Code) identifies the land uses that may be established as accessory uses on agriculturally zoned property; a land use that is not enumerated as a permissible accessory use in Section 22.16.030.C.2 cannot be established as an accessory use on agriculturally zoned property. Notably, Section 22.16.030.C.2 *does not* authorize utility scale energy storage devices as a permitted accessory use in agricultural zones (in fact, Section 22.16.030.C.1 expressly prohibits "energy storage devices" used for renewable energy integration as a permitted principal use in agricultural zones - See Figure 1). Because the Zoning Code does not permit utility scale BESS facilities as accessory uses in agricultural zones, the Department of Regional Planning exceeded its authority under the Zoning Code and thereby abused its discretion when it approved Project No. PRJ2023-002405-(5) with a utility scale BESS as an accessory use.

Response 1-3

Los Angeles County Code Section 22.16.030.C2 authorizes accessory buildings and structures as determined by the principal use. This broad authority to develop structures incidental and customary to the principal use includes authority for the County to approve a BESS as a component part and accessory use for a utility-scale solar energy facility, as authorized by County Code Sections 22.16.030.C1 and 22.140.510. See also Response 1-1.

The Los Angeles County Code does not define "energy generating or storage devices, including but not limited to solar, wind, or geothermal devices." However, the County Code expressly authorizes "utility-scale solar energy facilities," both ground-mounted and structure mounted, in the A-2 zone with approval of a conditional use permit. The project proposes a ground-mounted utility-scale solar energy facility, as authorized by County Code Sections 22.16.030.C1 and 22.140.510.

Comment 1-4

REGIONAL PLANNING "POLICY" CITED BY STAFF ACTUALLY DEMONSTRATES THAT THE BESS IS NOT PERMITTED AS AN ACCESSORY USES IN AGRICULTURAL ZONES.

The RPC hearing package states on page 1 of "Exhibit B" that the proposed utility scale BESS is an accessory use and not a principal use; this fact was also articulated by Planning Staff at the hearing on August 20, 2025. In comments during the hearing, SORT pointed out that the Zoning Code does not permit utility scale BESS facilities in agricultural zones as either an accessory use or a principal use. In response to these comments, Planning staff stated that, under current Regional Planning "policy", a BESS "is considered similar to the electrical distribution substation which currently requires a CUP in A-2 zone" [time stamp 46:32]. Aside from the fact that this "policy" is technically deficient and lacks evidentiary basis (as described below), if we nevertheless accept it as true, then this "policy" further proves that a BESS is not permitted as an accessory use in any agricultural zone because the Zoning Code permits Electrical Distribution Substations with a CUP in agricultural zones only as a principal use (see Section 22.16.030). The Zoning Code does not permit Electrical Distribution Substations as an accessory use in agricultural zones under any circumstance (not even with a CUP); therefore, utility scale BESS are not permitted as an accessory use in agricultural zones under any circumstance. So, even if the "policy" were correct in asserting that a utility scale BESS facility is "similar" to an Electrical Distribution Substation (a point which SORT does not concede), then the "Policy" precludes the County from approving a utility scale BESS as an accessory use in an Agricultural Zone because Electrical Distribution Substations are not permitted as an accessory use in agricultural zones. Accordingly, the "Policy"

clearly demonstrates that the RPC exceeded its authority and abused its discretion when it approved a utility scale BESS facility as an accessory use on the agriculturally zoned subject property.

Response 1-4

The Regional Planning Commission's findings to approve the project do not reference nor rely on the Department of Regional Planning interpretation memorandum regarding BESS or any determination that BESS is similar to a permitted use. Instead, the BESS is considered an incidental and accessory component of a utility-scale solar energy facility, which is expressly authorized by the County Zoning Code. See also Response 1-1 and 1-3.

By way of background, recognizing the need for flexibility to administer the County's zoning rules, the County Code authorizes the Director of the Department of Regional Planning to make interpretations for any provision not expressly identified in the Zoning Code and provide clarification of these rules and their application. (County Code Chapter 22.234.) When the Director determines that the meaning or applicability of any provision of the Zoning Code is subject to interpretation, the Director may issue a written interpretation. (County Code Section 22.234.020.)

The Director issued a written interpretation memo on October 18, 2021 finding that, as a general matter, utility-scale BESS are similar to and should be afforded similar treatment to "electrical distribution substations."[1] The County has approved multiple BESS facilities with ministerial site plan reviews, Revised Exhibit "A", and zoning conformance reviews, both before and after issuance of the formal interpretation memorandum. (A Revised Exhibit "A" is a revision to a site plan associated with a previously approved Conditional Use Permit.) (See, Site Plan Review No. RPPL2022005482, approving 100-megawatt Cald BESS on 2.27 acres (June 28, 2023), Site Plan Review No. RPPL2021003484, approving 73-megawatt Homestead BESS (August 24, 2021), Site Plan Review No. RPPL2021004041, approving Ranger BESS (August 24, 2021), Revised Exhibit "A" No. RPPL2023002818, approving a solar and BESS system (July 27, 2023), Zoning Conformance Review No. RPPL2023002635, approving roof-mounted solar with BESS (August 31, 2023), and Revised Exhibit "A" No. RPPL2022012729, approving BESS facility within existing solar facility

[1] Los Angeles County Department of Regional Planning, Subdivision and Zoning Ordinance Interpretation No. 021-03 – Battery Electric Storage Systems, October 18, 2021, https://planning.lacounty.gov/wp-content/uploads/2023/02/ip_2021-03_sub-zon-ord.pdf. Accessed September 22, 2025.

(February 22, 2023).) Evidence of these BESS approvals are available to the public on the County's Electronic Permitting and Inspections website.[2]

Here, however, the Regional Planning Commission made no findings that the BESS is similar to an electric distribution substation and the Commission's findings do not reference or rely upon the departmental interpretation memo.

Comment 1-5

THE REGIONAL PLANNING POLICY DECLARING UTILITY SCALE BESS FACILITIES TO BE "SIMILAR" TO ELECTRICAL DISTRIBUTION SUBSTATIONS IS NOT BASED ON SUBSTANTIAL EVIDENCE AND IS TECHNICALLY DEFICIENT.

Although it is not mentioned anywhere in the RPC Hearing Package, the "Policy" that Planning Staff invoked at the August 20 hearing which declares BESS facilities to be "similar" to Electrical Distribution Substations is found in "Subdivision And Zoning Ordinance Interpretation No. 2021-03 – Battery Electric Storage Systems" (Memo 2021-03) a copy of which is provided in Attachment 1. As SORT has previously explained to the Board[2], Memo 2021-03 is rife with error, it is technically deficient, and it lacks evidentiary basis; specific deficiencies are enumerated in Attachment 2. Accordingly, the RPC abused its discretion when it approved the project with a utility scale BESS because the "policy" invoked by staff and relied upon by the Commission to approve the project is not supported by substantial evidence.

Footnote 2: See pages 8-10 of SORT's protest of the proposed Franchise Agreement for the Humidor Transmission Line filed on October 27, 2024.
https://file.lacounty.gov/SDSInter/bos/supdocs/196455.pdf

Response 1-5

See Responses 1-1, 1-3, and 1-4.

[2] Los Angeles County, Electronic Permitting & Inspections EPIC LA, https://epicla.lacounty.gov/energov_prod/SelfService/#/home. Accessed September 22, 2025.

Comment 1-6

EVEN IF MEMO 2021-03 WERE TECHNICALLY COMPETENT, ITS APPLICATION IS LIMITED AND DOES NOT EXTEND TO AGRICULTURAL ZONES.

As the Board is aware, SORT is in litigation with the County regarding the application of Memo 2021-03 to utility scale BESS facilities in certain zones. The trial was convened on July 17, 2025 and although no final judgement has yet been entered, remarks made by the Court during the hearing suggest that the judgement will limit the applicability of Memo 2021-03 to just those zones in which the Zoning Code authorizes the County to approve unlisted uses when they are found to be similar to listed uses. These facts, coupled with the fact that the Code does not permit any unlisted uses in agricultural zone even if they are similar to listed uses, demonstrate that the utility scale BESS approval will not withstand judicial review.

Response 1-6

See Responses 1-1, 1-3, and 1-4.

Comment 1-7

THE NOISE IMPACT ASSESSMENT IS DEFICIENT AND VIOLATES CEQA.

SORT's comments on the project before and during the August 20 hearing addressed numerous deficiencies in the noise impact assessment upon which the Initial Study is based. For instance, the Initial Study incorrectly asserts on pages 79 and 80 that the Solar/BESS project is subject to the 75 dBA construction noise standard set forth in Section 12.08.440. However, the 75 dBA construction noise standard only applies to short term construction projects lasting 10 days or less; therefore, the 75 dBA construction noise standard does not apply because construction activities on the Solar/BESS Project will persist for more than 10 days. Nonetheless, the developer told the RPC that SORT was incorrect, that the 75 dBA applies to all construction activities throughout the County, and that the Health Department made this clear when they "approved" the developer's Noise Analysis. All of these statements by the developer are incorrect. As clearly set forth on page 3 of the Health Department Letter dated May 15, 2024, both Regional Planning and the developer were informed that the 75 dBA standard only applies to construction projects lasting 10 days or less (see Attachment 3). Moreover, the Health Department did not "approve" the developer's noise analysis; to the contrary, the Health Department observed that the developer may need to mitigate construction noise by constructing noise barriers to protect surrounding residences (see page 6). Regional Planning ignored these comments and did not incorporate them into the "Mitigation Monitoring and Reporting Program".

During the hearing, SORT also explained that, because the Solar/BESS project construction activities do not qualify for the 75 dBA construction noise standard, the more stringent "Noise Level" standards set forth in Section 12.08.390 apply. These "Noise Level" standards were clearly enumerated by the Health Department[3] and they limit the "Noise Level" that can be experienced by the nearest residential receptor as follows:

- At no time shall the exterior noise levels exceed 50 dBA for a cumulative period of more than 30 minutes in any hour; this is referred to as the "L50" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 50 dBA more than 50% of the time.
- At no time shall the exterior noise levels exceed 55 dBA for a cumulative period of more than 15 minutes in any hour; this is referred to as the "L25" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 55 dBA more than 25% of the time.
- At no time shall the exterior noise levels exceed 60 dBA for a cumulative period of more than 5 minutes in any hour; this is referred to as the "L8.3" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 60 dBA more than 8.3% of the time.
- At no time shall the exterior noise levels exceed 65.9 dBA for a cumulative period of more than 1 minute in any hour; this is referred to as the "L1.7" Noise Level standard because it ensures that a sensitive receptor is not exposed to excessive noise levels exceeding 65.9 dBA more than 1.7% of the time.
- At no time shall the exterior noise level ever exceed 83.1 dBA; this is referred to as the "L0" Noise Level standard because it ensures that a sensitive receptor is never exposed to excessive noise levels exceeding 83.1 dBA.

During the hearing, SORT explained that the developer's construction noise analysis is heavily biased and substantially understates actual noise levels because the developer's noise model assumes (improperly) that construction noise is only generated at the center of the project site rather than throughout the project site. The developer's noise analysis openly acknowledges that "construction activities would occur throughout the Project Site" (page 16) and "equipment would operate throughout the Project Site and not at a fixed location" (page 17); nonetheless, the model assumes all construction equipment operates only "at the center of the Project" (pages 17 and 18). With this assumption, the developer claims that the nearest sensitive receptor is 718 feet from any construction noise sources (see page 18) when in fact the nearest receptor is 130 feet from construction noise sources. Equally problematic, the noise levels reported in Table 6 are

not the actual peak noise levels that will be generated by project construction; rather they are merely average construction noise values which were calculated by taking the mean of all noise levels over a specific time period[4]. These average noise levels are known as "Equivalent Noise Levels" or "L_{eq}" values. And, because "L_{eq}" values represent an average of all noise insults that occur, they are always much lower than the actual peak noise levels experienced by sensitive receptors. Importantly, County Noise Standards are not based on average L_{eq} noise values; rather, they are based on either "maximum" noise values (like the 75 dBA construction noise standard[5]) or on the L50, L25, L8.3, L1.7, and L0 "Noise Level" values described above. Accordingly, the L_{eq} values reported in Table 6 of the developer's Noise Analysis cannot be used to assess whether construction activities will comply with County Noise Standards.

Fortunately, more detailed information is provided in "Appendix A" of the developer's noise analysis and it indicates that project construction activities will not comply with the County's L50, L25, L8.3, or L1.7 Standards. Specifically, Appendix A provides the output from the developer noise model on page 8, and it reports that the "Slurry Trenching Machine" and "All Other Equipment" will have an acoustical usage factor of 50%, and generate a maximum receptor noise level exceeding 57 dBA; this means that, at least 50% of the time, these devices will generate noise levels exceeding the L50 Standard of 50 dBA at all receptors within 718 feet. Similarly, the "Tractor", "Excavator", "Dozer" and "Front End Loader" equipment all have a 40% usage factor and will generate maximum receptor noise levels exceeding 57 dBA; this means that at least 25% of the time, these devices will generate noise levels exceeding the L25 Standard of 55 dBA at all receptors within 718 feet. Finally, the "Impact Pile Driver" (which will be deployed everywhere on the site to construct all the footings for the solar panel racks) will have a 20% usage factor and generate a maximum receptor noise level exceeding 78 dBA; this means that pile driver operations will generate noise levels that exceed the L8.3 Standard of 60 dBA and the L1.7 Standard of 65.9 dBA at all receptors within 718 feet. The developer obfuscates these facts by first improperly reporting averaged Leq noise data in Table 6 rather than actual "Noise Levels" (as defined by Section 12.08.250) and then analyzing these "Noise Levels" in a manner that is consistent with Chapter 12.08.

Importantly, the noise model outputs reported on page 8 of Appendix A assume that the nearest sensitive receptor is 718 feet from construction activities when in fact, the nearest residence is less than 150 feet from construction activities. This means that the actual construction noise levels which will be experienced by actual sensitive receptors will be much higher than what is projected. For instance, page 8 of Appendix A reports that the "Impact Pile Driver" will generate maximum noise levels of 101 dBA at a distance of 50 feet and 78.2 dBA at a distance of 718 feet.

Accordingly, pile driver operation will result in a 93 dBA noise level at the residence located 130 feet from the construction area[6] which substantially exceeds all county noise standards.

Furthermore, page 8 of Appendix A states that maximum noise levels within 718 feet of pile driver operations will exceed the 75 dBA maximum construction noise standard which the developer claims is both applicable to the project and met by the project. In other words, if the 75 dBA maximum construction noise standard did apply to the Solar/BESS project (which it does not), the data provided in Appendix A proves that this 75 dBA standard will be exceeded at all locations within 718 feet of "Impact Pile Driver" operations.

These facts prove that the Solar/BESS Project construction activities will violate all applicable County Noise Standard and thus result in significant noise impacts for which no mitigation measures are provided. Because the Mitigated Negative Declaration that was certified by the RPC on August 20, 2025 ignores these impacts, it violates CEQA.

SORT cannot overstate how devastating it is to experience the persistent noise generated by a nearby pile driver operating 10 hours per day, six days per week; some of our members in the Antelope Acres community have been so affected by the constant pile driver noise from construction on the thousands of acres of solar farms which surround this community that they wished they could have relocated to a hotel for a few months but they could not afford to do so. The County must protect surrounding residents and businesses from the relentless and terribly disruptive construction noise that will be generated by the Solar/BESS project and for which Regional Planning failed to impose any mitigation measures.

Footnote 3: See Table 5 in the Health Department Letter dated May 15, 2024 provided in Attachment 4.

Footnote 4: The developer's noise analysis fails to disclose the interval of time over which these noise insults were averaged; it could be 15 minutes or 1 hour or 8 hours. This is another significant deficiency.

Footnote 5: The developer incorrectly asserts in Table 6 that the 75 dBA construction noise standard established by Section 12.08.440 is an average "Leq" standard; to the contrary, the plain language of Section 12.08.440 clearly proves that 75 dBA is a maximum noise standard, not an average noise standard.

Footnote 6: This assumes a geometric attenuation rate of 6 dBA of distance doubled given that there is little vegetation on the project site to absorb noise and there are no structures or barriers to shield noise.

Response 1-7

The appellant incorrectly claims that Section 12.08.390.A of the Los Angeles County Code applies to construction activities. County Code Section 12.08.440 – Construction Noise contains the appropriate standards for construction activity. The 75 dBA standard is the appropriate standard for the analysis of mobile construction equipment (e.g., equipment that would move throughout the site). As stated in Section 12.08.150 of the County Code, a "stationary" noise source creates sounds while fixed or motionless, including but not limited to residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment. Construction equipment, which are collectively referred to and regulated as off-road vehicles and mobile equipment, are mobile noise sources and are clearly within the category of "any noise source other than a fixed noise source" pursuant to Section 12.08.220. It should also be noted that County Code does not define the standard as a L_{max} peak standard. Therefore, use of the mobile construction noise standard is appropriate and accurate because the construction equipment is not fixed. Although the County Code includes no specific noise limit for longer-term operation of mobile equipment, policy and practice in Los Angeles County is to use the 75 dBA limit for mobile equipment.

The project's noise assessment estimated project construction noise levels using the Federal Transit Administration (FTA) methodologies found in the Transit Noise and Vibration Impact Assessment Manual (FTA Manual) (2018). Construction equipment moves all over the project site throughout any particular day and the location of temporary construction equipment noise sources will also shift from hour to hour and day to day. That is why the FTA manual includes instructions to model construction noise sources from the center of the site. This is a way of averaging the noise over the construction period, which is appropriate for an 8-hour L_{eq}. The MND and Technical Appendix appropriately state that the distance used in the modeling for the project site is 718 feet from the nearest sensitive receptor to the center of the project site, as instructed by the standard methodology. As noted on page 8 of Appendix A of the Noise Technical Memorandum, L_{eq} would not exceed 75 dBA at 718 feet.

The project's noise assessment modeled all of the likely noise sources associated with each construction phase at the center of the site and using the industry-standard Road Construction Noise Model (RCNM) projected that noise to nearby noise-sensitive land uses. This analysis also relies upon well documented noise reference levels provided in Appendix A of the Noise Technical Memorandum and usage factors provided in the Caltrans Department of Transportation Technical Noise Supplement (2013). Usage factors are the percentage of the 1-hour or 8-hour timeframe that a specific piece of equipment would be used, recognizing that equipment is not constantly

powered on and running. This was the appropriate methodology and is standard methodology used for construction projects throughout Southern California.

Regarding the Los Angeles County Department of Public Health review, the commenter neglected to include the portion of the comment where the Department notes "Based on the above findings and the noise TECHNICAL MEMORANDUM submitted by the applicant consultant, Kimley-Horn, the subject site construction and operation activities would not have significant noise impact." As there are no significant noise impacts, no mitigation measures are required. Additionally, Charlene Contreras, Director of the Community Protection Branch of the Department of Public Health, issued a letter to the County on August 30, 2024 noting that the Department agrees with the Lead Agency and does not foresee significant environmental impacts given the proposed plan. The project also must comply with the County's noise ordinance during construction and operation. Therefore, no further response is warranted.

Comment 1-8

SORT is also concerned that the developer's Noise Analysis fails to properly assess the operational noise impacts that will result from the Solar/BESS project. Specifically, The developer's BESS noise impact assessment is not based on actual noise source data obtained from the BESS and inverter manufacturers; instead, it cites to an EIR prepared by Kern County for a solar project years ago which claims that the most significant noise source at a BESS facility is the HVAC equipment at only 52.3 dBA (see page 20); this is incorrect. The most significant noise sources at a utility scale BESS development aside from system transformers are the PCS units/inverters (which typically exceed 95 dBA) and the BESS units themselves (which typically exceed 80 dBA)[7]. Next, the developer claims that the 52.3 dBA noise level generated by the BESS will drop by 8 dBA at the nearest residence located 130 feet away. However, the actual BESS operating noise level will be closer to 80 dBA and thus it will drop to 72 dBA at the nearest residential receptor which exceeds the County's Noise in County Code Section 12.08.390 and is therefore "significant". SORT has similar concerns with the developer's assessment of transformer noise impacts which were also developed without actual noise source data from the manufacturer. Fortunately, these noise impacts could perhaps be mitigated by relocating the BESS and transformers.

Footnote 7: See the source data for the BESS units that will be used for the Angeleno project found on the last page here:
https://efiling.energy.ca.gov/GetDocument.aspx?tn=264397&DocumentContentId=101237

Response 1-8

The appellant claims that operational noise levels assumed in the noise assessment are not accurate and provides a link to the Prairie Song Reliability Project's application noise appendix to support its claim that PCS units/inverters and the BESS itself are the most significant noise sources at a utility-scale BESS facility. (The Prairie Song Reliability Project is a 1,150-megawatt, 107-acre BESS project currently under review by the California Energy Commission under the AB 205 Opt-In Certification Program.) The sound data provided by the appellant is listed as sound power levels and is listed as inputs for the acoustic model. Sound power levels are a measure of the acoustic energy emitted by the sound source, and they do not change depending on where you are in relation to the object. The human ear hears sound pressure levels, which are always less than sound power levels since sound pressure depends on the distance from the source and the environment the source is placed within.

The appellant claims that the proposed transformer would generate noise in the 75-80 dBA range, without offering substantial evidence in the form of equipment specifications or noise measurement data.

The appellant claims that the operational noise analysis is not based on real data. However, the analysis relies on noise reference level data provided by other solar projects with similar components and operations and noise reference levels from the National Electrical Manufacturers Association.

Further, the Los Angeles County Department of Public Health reviewed the noise analysis and determined that operational activities would not have a significant noise impact, as described in Response 1-7.

Comment 1-9

Finally, SORT observes that the noise impacts reported by the developer do not comply with CEQA's requirement to assess the "direct effects" of the Solar/BESS project which are defined as "effects which are caused by the project and occur at the same time and place" as the project [CEQA Guidelines Section 15358]. For instance, the average "Leq" noise data reported by the developer do not reflect actual (peak) noise levels at the "same time" they occur; additionally, the developer's noise model pretends that noise only emanates from the center of the project site and not from the actual "same place" where they occur. In other words, because the developer's average Leq results do not represent actual noise effects at the "same time and place" that they occur, it does not satisfy the County's CEQA obligations to assess "direct" noise effects.

For all these reasons, the developer's Noise Impact Assessment that is relied upon by the Initial Study and the Mitigated Negative Declaration is substantially flawed, it applies incorrect compliance standards, it is based on specious assumptions, it fails to report actual noise results, it fails to report noise impacts in the requisite L50, L25, L8.3, and L1.7 format, and it violates CEQA. Moreover, Appendix A demonstrates the project will violate every County Noise Standard; therefore, the Solar/BESS Project will result in significant noise impacts that are improperly ignored by the Mitigated Negative Declaration.

Response 1-9

See Responses 1-7 and 1-8 above.

Comment 1-10

THE MITIGATED NEGATIVE DECLARATION FAILS TO ADDRESS SIGNIFICANT WILDFIRE RISKS POSED BY THE SOLAR/BESS PROJECT.

The Mitigated Negative Declaration concludes that the Solar/BESS project will have no significant wildfire impacts because, according to page 100 of the Initial Study, the project is not in a Very High Fire Hazard Severity Zone and the BESS has redundant fire safety measures that reduce fire risks to a level that is not significant. These statements are incorrect. The project site is in a Very High Fire Hazard Severity Zone[8] and there are no redundancies built into any BESS fire safety measures that render its fire risk to be insignificant[9]. In fact, BESS design standards assume that BESS units will deflagrate! For example, UL9540A (which is the primary BESS fire certification protocol) establishes that a BESS system meets all certification criteria as long as it does not ignite an adjacent BESS container when it deflagrates[10]. Because the project is in a Very High Fire Hazard Severity Zone and the BESS component is susceptible to deflagration, the Project poses a significant wildfire risk which is completely ignored by the Mitigated Negative Declaration.

Footnote 8: On July 22, 2025, the County Board of Supervisors adopted Ordinance No. 2025-0027 to incorporate new fire zone maps into the County Code. These fire zone maps clearly depict that the project site is in a Very High Fire Hazard Severity Zone. https://file.lacounty.gov/SDSInter/bos/supdocs/205592.pdf

Footnote 9: This fact was recently confirmed in a report issued by the California Public Utilities Commission which states every component of a lithium BESS unit is "a potential point of failure—the risk of which can be minimized via quality control, testing, and ongoing monitoring and maintenance but cannot be entirely eliminated". CPUC Energy Storage Procurement Study: Safety Best Practices. Attachment F at page F-6.

https://lumenenergystrategy.com/uploads/1/3/6/3/136375767/2023-05-31_lumen_energy-storage-procurement-study-report-attf-final.pdf.

Footnote 10: Under UL 9540A, a BESS unit is certified if "there is no flaming beyond outer dimensions of BESS unit".

Response 1-10

The MND was circulated for public review on May 6, 2025, prior to the July 22, 2025 County Board of Supervisors adoption of Ordinance No. 2025-0027 to incorporate new fire zone maps into the County Code. At the time the MND was circulated, the project site was not depicted within a Very High Fire Hazard Severity Zone. With the updated maps, the project site is now designated within a Very High Fire Hazard Severity Zone. The project's location within a Very High Fire Hazard Severity Zone does not change the analysis in the MND, and Hazards and Wildfire impacts remain less than significant. The IS/MND includes information regarding fire and hazardous material safety and wildfire risks related to BESS.

The standards and requirements for fire prevention in BESS facilities have progressed substantially in recent years. See the discussion on page 65 of the IS/MND under Threshold 9(a) and on page 100 under Threshold 20. As noted in the Project Description, the BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS would also be designed to comply with all applicable codes in the County of Los Angeles Fire Code and Energy Storage Standard UL 9540 and UL 9540a. The Applicant has also coordinated and received review by the Los Angeles County Fire Department regarding fire safety. Their comments have been implemented into the project's design.

The BESS system has three distinguishing factors: battery chemistry; system configuration; and fire suppression. The project would utilize Lithium Iron Phosphate (LFP) batteries that are more stable under high temperatures, less prone to combustion, and do not provide a source of oxygen. This type of battery is widely regarded as a safer technology that significantly reduces the risk of thermal events and enables safer long-term operation. In contrast, the Moss Landing Vistra facility relied on Nickel Manganese Cobalt (NMC) lithium-ion batteries, which offer higher energy density but present higher risks of fires.[3]

[3] Canary Media, Why we don't need to worry too much about the latest grid battery fire, January 27, 2025, https://www.canarymedia.com/articles/energy-storage/moss-landing-fire-reveals-flaws-in-the-battery-industrys-early-designs. Accessed September 22, 2025.

Regarding system configuration, older technology had battery racks that could be housed within an enclosed building. This indoor arrangement includes thousands of closely packed battery racks with limited thermal isolation between units, which was a contributing factor in the rapid spread of fire. By comparison, the project employs an outdoor containerized system which is pad mounted on concrete. Concrete is considered a highly fire-resistant material. Each of the containers is individually housed and physically separated, allowing for improved heat dissipation and easier emergency access. Additionally, the pads are installed on top of a gravel base which further assists with fire retardation by dissipating heat generated by the system to prevent overheating and reduce the risk of fire. This spatial separation inherently limits the potential for fire propagation and supports safer containment.

As discussed in the IS/MND, the project would comply with the California Fire Code, Chapter 12, Section 1207 et seq. that outlines design requirements for electrical energy storage systems, including a requirement for batteries to have control measures in place to prevent thermal runaway. Pursuant to the National and International Fire Codes, the voltages, currents, and temperatures of battery modules would be required to be monitored and controlled 24 hours 7 days a week to ensure every cell remains within its safe operating parameters. These monitoring and control systems are required to transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected. If a module-level system failure is detected, the system automatically controls and isolates individual modules from the rest of the system preventing the conditions that could lead to an event.

The project would incorporate dedicated fire suppression systems within each container. These systems are aerosol-based and activate independently if elevated temperatures or off-gassing are detected. This approach ensures that any incident is contained to a single unit and avoids damage to adjacent systems. Furthermore, battery manufacturers must prove that battery modules, if they catch fire, will not cause a fire to propagate to other modules, racks, or other enclosures. As part of this process, manufacturers must show that their batteries can pass rigorous UL 1973 and UL 9540A testing and certification. This testing includes demonstration of adequate system controls and alarms, separations between equipment, protections such as fire-retardant barriers and coatings, fire suppression systems, and ventilation systems to limit failure to a single battery module. A Failure Mode and Effects Analysis (FMEA) must be performed for each system enclosure and requires a test to ensure safe compatibility of the system's parts. The project would also be equipped with integrated fire and safety systems, such as air cooling/conditioning

systems, deflagration, gas-ventilation, gas, heat and smoke detection and alarms, and fire extinguishing and suppression systems within each container.

Comment 1-11

THE MITIGATED NEGATIVE DECLARATION FAILS TO ADDRESS SIGNIFICANT AIR QUALITY AND HAZARDOUS EMISSION RISKS POSED BY THE SOLAR/BESS PROJECT.

The Mitigated Negative Declaration concludes that the Solar/BESS project will not result in any significant air quality or hazardous emission impacts because page 28 of the Initial Study states that project operations will not result in toxic air contaminant (TAC) emissions and page 65 states that no accident at the Solar/BESS Project could result in any hazardous material releases into the environment because "there are no recognized environmental conditions" at the project site. These superficial analyses ignore the propensity of Lithium BESS units to release significant quantities of toxic gases (HF, HCN, HCL) whenever they deflagrate; these circumstances always endanger the surrounding populations and always compels shelter in place and evacuation orders. A single BESS unit deflagration can release more than 2,000 points of toxic HF gas in concentrations that are deadly[11]. Yet, and incredibly, the Mitigated Negative Declaration completely ignores the toxic emission potential of the proposed BESS units. Worse yet, the applicant provided erroneous testimony before the Planning Commission to argue that the BESS units do not pose a hazard risk because they "are a lithium iron phosphate composition where there's no hazardous materials in that composition" [Time stamp 44:01]. This statement is incorrect. As explained in Attachment 5, Lithium Iron Phosphate batteries are just as prone to deflagration and toxic emissions as other Lithium-based batteries. Because the Mitigated Negative Declaration completely ignores the significant and unmitigable toxic emission risks posed by the BESS, it substantially violates CEQA.

Footnote 11: A study published by Nature reports that 20 - 200 mg of HF are released per watt-hour of discharge capacity in Lithium Ion batteries; this is equivalent to 20-200 kilograms (or 44-440 pounds) of HF per MWh. https://www.nature.com/articles/s41598-017-09784-z. For a BESS unit with a discharge capacity of 5 MWh, the HF releases would be as high as 2,200 pounds.

Response 1-11

The appellant claims that BESS facilities present a high risk of explosion, fire, and toxic gas release during a fire. BESS facilities do not present a higher risk of explosion, ignition, fire, and toxic gas release than other land uses that would generate significant air quality or hazardous emissions impacts (e.g., warehouse or industrial land uses). The BESS will utilize properly certified batteries and materials from reputable manufacturers, will comply with state and local codes per industry

practice, and will include proper training, planning, and preparedness for local first responders. See Response 1-10.

In the unlikely event of a thermal runaway, toxic air contaminants, including hydrogen fluoride, could be released. The movement of toxic air contaminants depends on the topography and wind conditions of the project site at the time of the release. Review of the average wind speed and wind direction for the project area from the closest air quality monitoring station for the AVAQMD (Lancaster Station) indicates that the wind within the project area typically travels from the west and southwest direction and moves at an average speed of 8.8 to 11.1 miles per hour; see **Figure 1: Wind Plot from Lancaster Station** below. Based on the wind patterns, the nearest receptor would not be within the direct path of any pollutant plume during off-gassing or in the event of a fire or thermal runaway. To the north lies open space and does not include any sensitive receptors that would be exposed to any toxic air contaminants in the event of fire or thermal runaway.

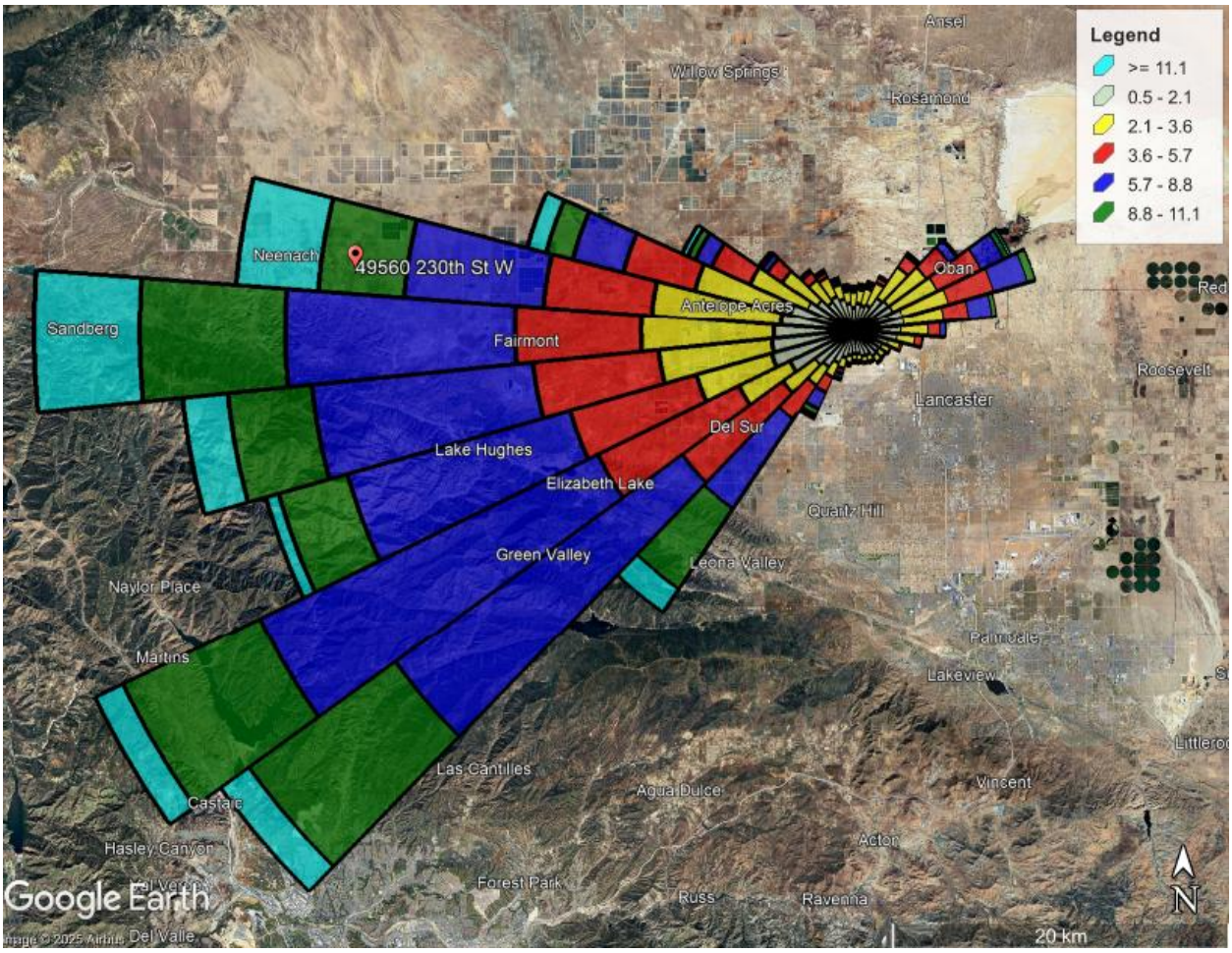


Figure 1: Wind Plot from Lancaster Station

Monitoring that has occurred during and after battery energy storage system fires has not detected air quality indicating a public health concern. For example, following a BESS fire at a San Diego Gas & Electric facility in Escondido, San Diego on September 5, 2024, County Hazmat conducted air monitoring over a four-hour period during the incident. The monitoring found only normal products combustion of a structure fire were detected and at levels considered by National Institute for Occupational Safety and Health and Occupational Safety and Health Administration to be well below exposure thresholds. A third-party contractor conducted additional air quality monitoring during the incident and for an additional 12 hours after the fire was extinguished and concluded that at no time during the incident did the levels of oxygen deviate from 20.9 percent, which is considered normal atmospheric level. Any decrease in the percentage of oxygen would indicate that there was some unknown gas in the atmosphere that was not able to be detected by monitoring equipment. No such deviation was detected.[4] Similarly, air quality testing of a BESS fire in New York likewise revealed no off-site air pollutants.[5]

As explained above and in the IS/MND, the BESS would include redundant safety measures and be designed to comply with all applicable codes in the County of Los Angeles Fire Code and Energy Storage Standard UL 9540 and UL 9540a. The Applicant has also coordinated and received review by the Los Angeles County Fire Department regarding fire safety. Fires at BESS are rare, and in the rare instances where fires have occurred, the safety features and protocols built into today's BESS are designed to prevent harm to operators, first responders and neighbors. Further, evidence from recent BESS fires have not detected off-site air quality pollutants indicating a public health concern.

Comment 1-12

THE MITIGATED NEGATIVE DECLARATION FAILS TO ADDRESS SIGNIFICANT WATER RESOURCE DEFICIENCIES OF THE SOLAR/BESS PROJECT.

The BESS units that are included in the project will utilize a lithium battery chemistry and will therefore be prone to deflagration and explosion. And, when deflagration occurs, the only action that can be taken by emergency responders is to allow the BESS units to simply burn themselves out in a process that takes days and even weeks. Throughout this lengthy deflagration process,

---

[4] City of Escondido, SDG&E Battery Fire, Air Quality Report, September 5, 2025, https://www.escondido.gov/DocumentCenter/View/6716/SDGE-Battery-Fire-Air-Quality-Report-PDF. Accessed September 22, 2025.

[5] New York State Inter Agency Fire Safety Working Group Air, Soil, and Water Data Findings, December 2023, https://www.documentcloud.org/documents/24738054-nys-data-collection-report_wssummaryr1. Accessed September 22, 2025.

hundreds of thousands of gallons of water must be applied to the area surrounding the burning BESS to prevent the fire from igniting surrounding vegetation or adjacent structures. This is a particularly significant concern given that the project site is in a designated Very High Fire Hazard Severity Zone[12] and frequently experiences high winds.

The Mitigated Negative Declaration concludes that the Solar/BESS project will have no significant environmental impacts because, among other things, the Antelope Valley East Kern Water Agency (AVEK) will provide the development with adequate water resources (see page 98 of the Initial Study). However, the project site is not served by AVEK and there are no water lines extending from AVEK to the project site. SORT has confirmed with AVEK that AVEK is not familiar with the Solar/BESS project and has issued no "Will Serve" letter for the Solar/BESS project. Therefore, and contrary to what the Initial Study asserts, the Solar/BESS project will not receive municipal water service, so a new water well will have to be drilled to meet the significant water needs of the Solar/BESS project. SORT understands that, because the project is located in an adjudicated basin, the developer will be required to obtain a well permit from the Antelope Valley Watermaster. And, even if a new well permit is issued, and the well yield is sufficient to fill the developer's 10,000 gallon water tank, that will not be sufficient to provide the hundreds of thousands of gallons of water that will be needed when a BESS fire occurs. This in turn substantially increases the already significant wildfire risk posed by the BESS.

Nothing about what the Initial Study and Mitigated Negative Declaration concludes regarding water resources is correct. And contrary to what these documents assert, the project will require the construction of new water facilities which will certainly have the potential to result in significant environmental impacts and may not even be possible. Moreover, the intrinsic wildfire ignition risk posed by the BESS will be further amplified if the project is unable to secure sufficient water resources to withstand a prolonged BESS fire event. The Mitigated Negative Declaration substantially violates CEQA because it completely ignores these impacts.

Footnote 12: On July 22, 2025, the County Board of Supervisors adopted Ordinance No. 2025-0027 to incorporate new fire zone maps into the County Code. These fire zone maps clearly depict that the project site is in a Very High Fire Hazard Severity Zone.
https://file.lacounty.gov/SDSInter/bos/supdocs/205592.pdf

Response 1-12

See Responses 1-10 and 1-11 regarding fire prevention standards and requirements in BESS facilities.

The project site is within the Antelope Valley-East Kern Water Agency (AVEKWA) Division 1 Service Boundary.[6] As the project would be unmanned, no potable water would be required, and no new well or other new water facility will be needed nor would a well permit be required. As stated in the IS/MND, the project would require very little water for panel washing (0.2 AFY or less) and this water would be trucked in from an off-site source. AVEK is a wholesale supplier and provides water to retail suppliers. Therefore, water would not be provided directly by AVEK through a water line, and a will-serve letter is not required. The project applicant would hire and obtain water from a retail supplier from their existing sources and who would use trucks to deliver the water needed for construction. Because the project site is located within the AVEKWA service area, the analysis provided in the IS/MND assumed that the water to be trucked in would be sourced from a local purveyor (within the AVEKWA service area) and compares the project's proposed construction and operational water use to the water supply available and as described in the 2020 AVEKWA Urban Water Management Plan and the amount of natural recharge within the Antelope Valley Groundwater Basin. As stated on page 98 of the IS/MND, the region's water is provided from groundwater and imported water. As further discussed on page 99 of the IS/MND, the Antelope Valley Groundwater Basin has natural recharge estimated at approximately 29,000 to 58,000 acre-feet per year with an annual extraction of approximately 130,000 acre-feet. The water to be utilized during project construction and operations and maintenance is minor compared to the water currently used on the project site for agricultural uses, and as determined on pages 98 and 99 of the IS/MND, the project would have sufficient water supplies available to serve the project.

The project proposes a 10,000-gallon on-site water tank for supplemental emergency water storage. The 10,000-gallon tank is provided in full compliance with the County Fire Department requirements and was specifically required for the project by the County Fire Department. During its review of the project, the County Fire Department did not request in their conditions of approval any additional water delivery or storage facilities to serve the project site. The 10,000-gallon tank would be for Fire Department use only. Additional water that would be required for firefighting purposes would be provided by and coordinated by the Fire Department.

[6] Antelope Valley-East Kern Water Agency, Division Boundaries, https://avekwa.maps.arcgis.com/apps/instant/interactivelegend/index.html?appid=56629432a7cf437ba95696dd1510e08f. Accessed September 22, 2025.

Comment 1-13

REGIONAL PLANNING MAY HAVE IMPROPERLY SEGMENTED THE SOLAR/BESS PROJECT IN VIOLATION OF CEQA WHEN IT APPROVED THE CUP SEPARATELY FROM ANY REQUISITE FRANCHISE AGREEMENT

As explained above, there is virtually no information provided regarding the Solar/BESS Project gen-tie line so it cannot be ascertained whether the developer is required to secure a Franchise Agreement from the County. However, it is certain that a Franchise Agreement is required if the developer is constructing any portion of the gen-tie line in a County Right of Way. Under such circumstances, the Franchise Agreement and the gen-tie line are integral components of the Solar/BESS development and together, they form the "whole" project; yet, the hearing package makes no mention of any Franchise Agreement. Accordingly, if a Franchise Agreement is required, it can only be concluded that the County intends to process and approve the Franchise Agreement as a project that is separate from, and independent of, the Solar/BESS project. However, this violates the fundamental CEQA requirement to consider the "whole" project and not segment it into smaller components that are individually reviewed and approved [CEQA Guidelines Section 15003(h)]. To correct this deficiency the County must process the CUP and the Franchise Ordinance together as a single action.

Response 1-13

It is not anticipated that SCE would need a new franchise agreement or an amendment to its existing franchise for project interconnection. For purposes of CEQA coverage, a "project" is defined as comprising "the whole of an action" that has the potential to result in a direct or reasonably foreseeable indirect physical change to the environment. (CEQA Guidelines § 15378(a).) Thus, the term "project" refers to the activity for which approval is sought, not to each separate governmental approval that may be required for the activity to occur. (CEQA Guidelines §15378(c).)

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

August 20, 2025

RPCA Solar 12, LLC
c/o Ryan Nyberg
44 Montgomery Street Suite 3150
San Francisco, CA 94104

PROJECT NO. PRJ2023-002405-(5)
CONDITIONAL USE PERMIT NO. RPPL2023005137
Environmental Plan No. RPPL2023005138
49560 230th Street West, Lancaster (APN 3278-025-001)

Dear Mr. Nyberg:

The Regional Planning Commission (Commission), by its action of **August 20, 2025,** has approved the above-referenced project. Enclosed are the Commission's Findings and Conditions of Approval. Please carefully review each condition. This approval is not effective until the appeal period has ended and the required documents and applicable fees are submitted to LA County Planning (see enclosed Affidavit of Acceptance Instructions).

Appeals: The applicant or any other interested persons may appeal the Commission's decision. The appeal period for this project will end at 5:00 p.m. on **September 3, 2025.** Appeals must be submitted to appeal@planning.lacounty.gov before the end of the appeal period.

Upon completion of the appeal period, the notarized Affidavit of Acceptance and any applicable fees must be submitted to the planner assigned to your case. Please make an appointment to ensure that processing will be completed in a timely manner. Failure to submit these documents and applicable fees within 60 days will result in a referral to Zoning Enforcement for further action.

In addition, any applicable California Environmental Quality Act fees for the Department of Fish and Wildlife shall be paid, and a Notice of Determination, if applicable must be filed with the County Clerk according to the instructions with the enclosed Affidavit of

Acceptance. A Notice of Exemption, if applicable, may also be filed according to the instructions in the enclosed Affidavit of Acceptance.

For questions or for additional information, please contact Soyeon Choi of the North County Development Services Section at (213) 974-6443, or schoi@planning.lacounty.gov

Sincerely,

AMY J. BODEK, AICP
Director of Regional Planning



Samuel Dea, Supervising Regional Planner
North County Development Services Section

SD:SC

Enclosures: Findings, Conditions of Approval, Affidavit of Acceptance (Permittee's Completion)

c: DPW (Building and Safety)
Zoning Enforcement

CP_08202025_RPPL2023005137

LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

FINDINGS OF THE REGIONAL PLANNING COMMISSION
AND ORDER
PROJECT NO. PRJ2023-002405-(5)
CONDITIONAL USE PERMIT NO. RPPL2023005137
ENVIRONMENTAL PLAN NO. RPPL2023005138

RECITALS

1. **HEARING DATE(S).** The Los Angeles County ("County") Regional Planning Commission ("Commission") conducted a duly-noticed public hearing in the matter of Conditional Use Permit No. RPPL2023005137 ("CUP") on August 20, 2025.

2. **HEARING PROCEEDINGS.** A duly noticed public hearing was held on August 20, 2025, before the Commission. Staff presented the project, followed by testimony from Mr. Nyberg, representing the Permittee, RPCA Solar 12, LLC. Three speakers (a nearby resident and two members of Save Our Rural Town) testified in opposition, raising concerns related to valley fever, potential fire hazards, land use compatibility, and noise. Mr. Nyberg and Ms. Fan, the Permittee's consultant, responded to these concerns. The Commission directed that the accessory battery energy storage system ("BESS") be relocated further from the nearest single-family residence, to be addressed in the conditions of approval. The Commission also inquired about potential heat island effects from the Project. Staff explained that such impacts are not recognized under CEQA or any applicable thresholds, and that current photovoltaic technology does not amplify heat in a way that would create significant impacts in the surrounding area. Following discussion, the Commission closed the public hearing and approved the project.

3. **ENTITLEMENT(S) REQUESTED.** The Permittee, requests the CUP to authorize the development, operation, and maintenance of a ground-mounted utility-scale photovoltaic solar energy facility including an accessory battery energy storage system and appurtenant facilities and equipment ("Project") on a property located southeast of the intersection of 230th Street West and West Avenue C-8 in the unincorporated community of Lancaster in the A-2-2 (Heavy Agricultural – Two Acres Minimum Required Lot Area) zone pursuant to Los Angeles County Code ("County Code") Section 22.16.030.C (Land Use Regulations for Zones A-1, A-2, O-S, R-R, and W) and 22.140.510 (Renewable Energy).

4. **LOCATION.** The Project is located at 49560 230th Street West, also known as Assessor's Parcel Number ("APN") 3278025001, within the Antelope Valley West Zoned District and Antelope Valley Planning Area.

5. **LAND USE DESIGNATION.** The Project Site is located within the RL10 (Rural Land 10 – One Dwelling Unit per 10 Acres) land use category of the Antelope Valley Area Plan ("Area Plan") Land Use Policy Map, a component of the General Plan.

6. **ZONING.** The Project Site is located in the Antelope Valley West Zoned District] and is currently zoned A-2-2. Pursuant to County Code Section 22.16.030.C (Land Use Regulations for Zones A-1, A-2,...), a CUP is required for ground-mounted utility-scale solar energy facilities.

7. **SURROUNDING LAND USES AND ZONING**

LOCATION	ANTELOPE VALLEY AREA PLAN LAND USE POLICY	ZONING	EXISTING USES
NORTH	RL10	A-2-2	Vacant
EAST	RL10	A-2-2	Vacant
SOUTH	RL10	A-2-2	SFR, vacant
WEST	RL10	A-2-2	Vacant

8. **PROJECT AND SITE PLAN DESCRIPTION.**

A. Existing Site Conditions
The Project Site is 40 net acres in size and consists of one legal lot. The Project Site is rectangular in shape with gentle-sloping topography and is developed with a SFR at the southwest corner of the lot within an approximately nine-acre area.

B. Site Access
The Project Site is accessible via 230th Street West to the west. Primary and the only access to the Project Site will be via an entrance/exit on 230th Street West. 230th Street West is a 50-foot-wide Secondary Highway as mapped in the County Master Plan of Highways.

C. Site Plan
The Project will consist of a 4.99-megawatt ("MW") ground-mounted utility-scale solar facility ("solar facility") occupying approximately 31 acres of a 40-acre site. The solar facility will include photovoltaic ("PV") panels mounted on single-axis tracking systems supported by steel structures, with a maximum height of up to 25 feet. The arrays will be arranged in a north-south orientation. In addition to the solar arrays, the Project will also include an on-site accessory BESS, fencing, and utility connections. The accessory 4.99-MW BESS was planned to be located within the southwestern corner of the Project Site. Solar electricity generated by the project will interconnect with an existing electrical distribution grid system owned by Southern California Edison ("SCE") through a proposed generation-tie ("gen-tie") line. The gen-tie line will be underground and extend approximately 675 feet to the south along 230th Street West to the existing grid system.

Wildlife-friendly perimeter fences up to seven (7) feet in height topped with one foot of barbed wire, for an overall fence height of eight (8) feet, will enclose the solar facility. The fence design will incorporate 12-inch openings along the base to provide small-animal permeability. A 10-foot-wide vegetative landscape buffer will be installed along 230th Street West and along the southwestern boundary of the

solar facility where the solar facility adjoins an existing SFR on the Project Site to remain.

Additional on-site improvements include 20-foot-wide access roads along the perimeter and interior internal access road system, one (1) 10,000-gallon water tank for fire protection near the access gate on 230th Street West, retention and infiltration basins for rainwater in the central area across the solar facility from east to west, an appurtenant electrical collection equipment area in the central area, and accessory BESS at the southwest corner near 230th Street West. The accessory BESS will consist of fully enclosed containers approximately eight (8) feet wide, 10 feet tall, and 20 feet long, each of which is to be connected to a transformer with similar or smaller size. The only outdoor lighting that may be required is temporary lighting during construction, particularly during the winter season when daylight is no longer sufficient earlier in the day. No permanent outdoor lighting is proposed for operation.

Project Construction

Project construction is anticipated to last approximately seven (7) months, requiring a workforce of 15 to 20 personnel during non-peak periods and up to 50 during peak construction. Site grading will involve approximately 3,600 cubic yards of balanced earthwork (1,800 cubic yards of cut and 1,800 cubic yards of fill) for access roads, retention and infiltration basins, water tank pads and other appurtenant equipment. Minimal grading is proposed within the solar field as panel support posts will be directly driven into the soil. Vegetation taller than two (2) feet, with lower-growth vegetation being retained where feasible. Best management practices such as water application, soil stabilizers, load covering, and limiting grading during high wind conditions will be implemented. A final dust control plan will be submitted and approved by Antelope Valley Air Quality Management District ("AVAQMD") prior to any ground disturbance.

The nearest off-site sensitive receptor is a residential use located approximately 670 feet south of the Project boundary. The existing SFR on the Project Site will remain. Construction noise will occur primarily during weekday daytime hours in accordance with County Code Title 12 (Environmental Protection), which limits construction hours to 7:00 a.m. to 7:00 p.m. except Sundays and holidays, and the use of noise equipment will be scheduled and sited to minimize impacts.

Water Use

The County Code requires that solar facility operators purchase recycled water if such water is available within one (1) mile of the Project Site and at fair market value. As no such source is available, water will be sourced from a local water wholesaler, Antelope Valley-East Kern Water Agency ("AVEKWA"). Approximately 13 acre-feet ("AF") of water will be required for project-related construction and 0.2 AF annually for the facility's operation.

Dust Control

The Project will implement robust dust control measures to minimize airborne particulate emissions during construction. These include workers training,

maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads, the use of surface binders to prevent airborne dust, rescheduling grading activities when wind speeds exceed 25 miles per hour, and controlling exposed soils with plastic covering, mulch, or erosion control fabrics. The final dust control plan will be submitted and approved by AVAQMD prior to any ground disturbance.

9. **CEQA DETERMINATION.**
Prior to the Commission's public hearing on the Project, an Initial Study was prepared for the Project in compliance with the CEQA (Public Resources Code section 21000, et seq.), the State CEQA Guidelines, and the Environmental Document Reporting Procedures and Guidelines for the County. Based on the Initial Study, County Regional Planning ("LA County Planning") staff determined that a Mitigated Negative Declaration ("MND") was the appropriate environmental document for the Project. Air quality impacts, including concerns related to fugitive dust and Valley Fever, will be addressed through Dust Control Plans approved by AVAQMD. Biological resource impacts will be mitigated through measures such as species-specific surveys, avoidance buffers, monitoring, and coordination with California Department of Fish and Wildlife as needed. Cultural and tribal cultural resources will be protected through worker training, tribal monitoring, and treatment protocols outlined in a Tribal Cultural Resources Monitoring and Treatment Plan, ensuring appropriate response if resources are encountered during construction. The mitigation measures necessary to ensure the Project will not have a significant effect on the environment are contained in the Mitigation Monitoring and Reporting Program ("MMRP") prepared for the Project.

10. **COMMUNITY OUTREACH.** The Project Site is located within the area identified as part of the Fairmont Town Council area. A former Fairmont Town Council ("Town Council") member Larry Dunworth, in a letter dated March 31, 2025, stated that the Town Council was disbanded and had not had a meeting since February 2020.

11. **PUBLIC COMMENTS.**
A. Nathan Bello, in a letter dated May 9, 2025, suggested that mitigation land is provided specific wildlife species, such as Crotch's bumble bee.
B. Elizabeth Topor, in a letter dated May 29 and 30, 2025, expressed concerns about the Project due to noise, aesthetic, dust, potential fire hazard, traffic, lighting and reflection, potential impacts on family and animal life, and wildlife.
C. Sun Yoo, in a letter dated July 17, 2025, expressed support for the Project.

12. **AGENCY RECOMMENDATIONS.**

A. County Department of Public Works ("Public Works"): In a letter dated December 23, 2024, recommended that the Project proceed to public hearing with required conditions of approval

B. County Fire Department ("Fire"): In a letter dated December 19, 2023, recommended that the Project proceed to public hearing with required conditions of approval

C. County Department of Public Health: In a letter dated May 15, 2024, recommended that the Project proceed to public hearing with required conditions of approval

D. County Department of Parks and Recreation: In a letter dated December 19, 2023, recommended that the Project proceed to public hearing.

E. County Sheriff's Department ("LASD") Air Bureau: In a letter dated May 27, 2025, stated that the Project will not impact its operation.

13. **LEGAL NOTIFICATION.** Pursuant to Section 22.222.120 (Public Hearing Procedure) of the County Code, the community was properly notified of the public hearing by mail, and newspaper [Antelope Valley Press], and property posting. Additionally, the Project was noticed and case materials were available on LA County Planning's website. On July 10, 2025, a total of 19 Notices of Public Hearing were mailed to all property owners as identified on the County Assessor's record within a 1,000-foot radius from the Project Site, as well as 16 notices to those on the courtesy mailing list for the Antelope Valley West Zoned District and to any additional interested parties.

GENERAL PLAN CONSISTENCY FINDINGS

14. **LAND USE POLICY.** The Commission finds that the Project is consistent with the goals and policies of the General Plan and Area Plan because the RL10 land use designation is intended for SFRs, equestrian or animal-keeping uses, agricultural uses, and other uses where appropriate. Specific allowable uses are determined by the underlying zoning. The Project is appropriate at the subject location as it is comparable in terms of impact to the aforementioned uses and is otherwise compatible with the surrounding area.

The Area Plan further states that, "[u]tility-scale renewable energy production facilities may be allowed in Rural Land use designations without a Plan Amendment. However, applications for such facilities may require discretionary approval shall be subject to the CEQA and the County's environmental review and public hearing procedures. Applications for such facilities must be carefully considered and must be consistent with the relevant Goals and Policies of the Area Plan, especially Goal COS [Conservation and Open Space] 10 and related policies, Goal COS 13 and related policies, and Goal COS 14 and related policies" (LU-13). The Project requires discretionary approval and has been reviewed under the CEQA through the preparation of an MND in accordance with CEQA and County environmental reporting guidelines.

The proposed solar facility is consistent with the types of land uses envisioned for the RL10 designation. It is a low-intensity use that is compatible with the existing single-family residential use on the site and is not expected to generate substantial traffic, noise, or other environmental impacts to the SFR and the area. Additionally, the Project includes a decommissioning and restoration plan that will restore the site to pre-development conditions following the end of the solar facility's operational life. As

part of this plan, the site will be seeded and fertilized with native vegetation as needed to return the site to its pre-project state as close as practical to original or initially agreed-upon condition.

15. **GOALS AND POLICIES.** The Commission finds that the Project is consistent with the following goals and policies of the General Plan:

Land Use Element Goal LU 6: Protected rural communities characterized by living in a non-urban or agricultural environment at low densities without typical urban services.

- *Policy LU 6.1: Protect rural communities from the encroachment of incompatible development that conflict with existing land use patterns and standards.*
- *Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.*
- *Policy LU 6.3: Encourage low density and low intensity development in rural areas that is compatible with rural community character, preserves open space, and conserves agricultural land.*

Land Use Element Goal LU 7: Compatible land uses that complement neighborhood character and the natural environment.

- *Policy LU 7.1: Reduce and mitigate the impacts of incompatible land uses, where feasible, using buffers and other design techniques.*

The Project is appropriate for rural communities as it is a passive, low-intensity use that aligns with existing land use patterns and applicable standards. The surrounding area is characterized primarily by vacant land and SFRs on large lots. The Project will not result in permanent road closures, physical division of the community, or increased demand for public services. The Project is designed to minimize potential impacts through the incorporation of a 30-foot property setback, perimeter landscaping with drought-tolerant native vegetation, and wildlife-friendly fencing. The solar panel arrays will be installed using a low-impact method that preserves underlying vegetation, while grading will be limited to areas required for perimeter roads, retention basins, and other essential equipment. As the solar facility does not involve residential or commercial development, its overall intensity remains low. At the end of its operational life, the site will be decommissioned and restored to its pre-construction condition pursuant to a County-approved decommissioning plan, which ensures removal of above-ground structures, soil restoration, and revegetation, all of which will further support the Project's compatibility with the surrounding rural landscape.

- **Conservation and Natural Resources Element** *Policy C/NR 12.1: Encourage the production and use of renewable energy resources.*

The Project will produce renewable energy with PV solar arrays for distribution into the electrical grid. As such, the Project will help meet local and State mandates for carbon-

free energy while keeping land use impacts to a minimum. The Project will produce approximately 15,000 MW-hours of electricity annually and help offset approximately 5,750 metric tons of carbon dioxide annually. An accessory BESS will store excess solar energy during high generation and help create a more consistent energy supply.

As a renewable energy utility-scale solar facility, the Project also helps meet the goals and objectives of the County's Community Climate Action Plan ("CCAP"), a component of the General Plan, which was adopted in 2015 and in effect at the time of the CUP application for the Project. The purpose of the CCAP is to help implement the County's goal of reducing greenhouse gas ("GHG") emissions to 80 percent below 2000 levels by 2050 as part of the County's commitment to the U.S. Cool Counties Climate Stabilization Declaration.

In 2010 within the unincorporated areas, transportation emissions from vehicles are the second largest source of emissions, or 42 percent of total GHG emissions. One strategy to reduce these specific GHG emissions is to encourage the greater use of electric vehicles ("EVs"). As such, the CCAP encourages a County-wide installation of EV chargers to accommodate the anticipated growth of EVs in California and the nation. A large shift to EVs, however, would likely result in a substantial increase in demand for electrical power. Therefore, to truly contribute to a reduction in GHG emissions, the electricity used to charge EVs must come from carbon-free energy sources such as solar.

While the CCAP provides implementation strategies to reduce GHG emissions in multiple areas of development and construction within the unincorporated areas, California State Bill 100 signed in 2018 sets a target of 60 percent of renewable electricity by 2030 and 100 percent renewable electricity by 2045. As a utility-scale solar energy facility that will connect to the existing grid, the Project will help meet both local and state demand for renewable energy.

16. **GOALS AND POLICIES**. The Commission finds that the following goals and policies of the Area Plan are also applicable to the proposed project:

Conservation and Open Space Element Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.

- *Policy No. COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed.*

  The solar panels proposed for the Project are primarily composed of approximately 76 percent tempered glass, 10 percent plastic polymer, and less than 0.1 percent heavy metals, such as silver. These materials are stable and not readily susceptible to spills or accidental releases. Any used or spent solar panels determined to be hazardous waste are subject to strict regulation under applicable hazardous waste

laws. Routine cleaning of the panels will require only water, without the use of toxic chemicals, and the resulting runoff will infiltrate into the ground. Spent oil from transformers or other electrical equipment will be properly collected and transported to a licensed recycling facility. The accessory BESS will utilize lithium-ion batteries, which are classified as miscellaneous hazardous materials. As an added safeguard, the conditions of approval require the Permittee to participate in the photovoltaic ("PV") panel manufacturer's collection and recycling program—or another approved recycling program—to ensure proper disposal of decommissioned PV panels and other project components.

- *Policy COS 10.2: Ensure that all individual renewable energy systems and all utility-scale renewable energy production facilities do not interfere with commercial and military flight operations or communication facilities. Consult with Edwards Air Force Base and U.S. Air Force Plant 42 on all proposed renewable energy projects that require discretionary approval.*

  Staff has consulted with the U.S. Air Force and Edwards Air Force Base. No comments have been received from them. As the Project Site is located more than 44 miles away from Edwards Air Force Base and 35 miles from U.S. Air Force Plant 42, it is not likely to generate any impacts to their operations or facilities.

Conservation and Open Space Element Goal COS 13: Utility-scale energy production facilities for offsite use that reduce consumption of non-renewable resources while minimizing potential impacts on natural resources and existing communities.

- *Policy COS 13.1: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.*

  The Project will be developed on a single-family residential lot where the SFR development occupies approximately nine acres in the southwestern corner of the subject parcel. The Project Site is surrounded by mostly vacant land and some single-family residences on large lots. The visual impacts will be reduced by the required fencing and landscaping buffer. The drought-tolerant vegetation species approved by a staff biologist, will be irrigated as needed for establishment and maintenance in order to minimize water demand. The accessory BESS will be located approximately 130 feet from the nearest SFR, at which the noise levels measured are approximately 44 dBA and not exceeding the County daytime or nighttime noise standards of 50 dBA and 45 dBA, respectively. The project also incorporates wildlife-permeable fencing design and underground gen-tie lines onto the existing grid system that avoids impacts on existing biological resources. Mitigation measures and conditions pertaining to noise, dust control, aesthetics, and biological resources, will aid in reducing project impacts.

- *Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.*

  The Project will be required by the conditions of approval to develop and submit a decommissioning plan that includes a site restoration plan, prior to obtaining any building permits for construction. This decommissioning and restoration plan is required to include removal of all above-ground equipment and electrical lines, restoration of any disturbed soil and re-vegetation of the site to its pre-construction condition, restoration or reclamation of project roads to their pre-construction condition, documentation of the pre-construction condition of the Project Site, and details of the performance and financial assurance guarantees. The plan will be subject to the County's review and approval.

- *Policy COS 13.4: Promote the use of recycled water in utility-scale renewable energy production facilities to limit impacts on the available fresh water supply.*

  The County Code requires that solar facility operators purchase recycled water if such water is available within one mile of the Project Site and at fair market value. Since there is no such source within one mile of the Project Site, the primary source of water for the proposed project would be sourced from a local water wholesaler, AVEKWA. The proposed water usage is minimal as it will be used for dust suppression during construction and cleaning of solar panels during normal operation. Approximately 13 AF of water will be required during an approximately seven (7)-month construction period for site preparation and dust control, and 0.2 AF of water will be required annually for the solar facility's operation. All required water will be trucked to the Project Site.

- *Policy COS 13.5: Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure.*

  The Project Site is a 40-acre parcel that is currently developed with an SFR at approximately nine-acre area at the southwestern corner. The Project Site is not in a Significant Ecological Area ("SEA"). There are some biotic communities identified as being impacted by the Project, including Swainson's hawk, desert kit fox, American badger, crotch's bumble bee, and other special status birds. Mitigation measures for biological resources are proposed to reduce impacts to less than significant levels, such as avoiding burrowing owls within a 50-meter to 500-meter buffer depending on the season during construction or decommissioning as feasible.

- *Policy COS 13.6: Ensure that all utility-scale renewable energy production facilities, such as solar facilities, do not create land use conflicts with adjacent agricultural lands or existing residential areas in the vicinity. Require buffering and appropriate development standards to minimize potential conflicts.*

  The Project is in an area that is mostly vacant with sporadic development of SFRs. The Project Site is currently developed with a SFR at the southwest corner. Within a 1,000-foot radius from the Project Site, there are only two (2) existing SFRs to the south, not counting the SFR on the Project Site which will remain. The Project will be designed to minimize any conflicts with adjacent land uses by providing a 10-foot-wide landscape buffer on 230th Street West as well as the boundaries abutting the SFR on site. Perimeter fencing up to eight (8) feet in height, including barbed wire on top, will be installed 30 feet from the site boundaries to provide additional buffer and screening.

- *Policy COS 13.7: Limit the aesthetic impacts of renewable energy production facilities to preserve rural character.*

  The Project will contain design features to reduce its aesthetic impacts, including installing perimeter landscaping that consists of native and drought-tolerant vegetation. The landscaping will be irrigated regularly until established and maintained during the life of the Project with monthly monitoring. The height of the solar panels support structures will be limited to a maximum of 25 feet in height at maximum tilt to minimize visual impacts.

Goal COS 14: Energy infrastructure that is sensitive to the scenic qualities of the Antelope Valley and minimizes potential environmental impacts.

- *Policy 14.1: Require that new transmission lines be placed underground whenever physically feasible.*

  The Project's gen-tie lines of 675 feet in length will be placed underground along 230th Street West, to connect to an existing electrical grid system in compliance with all applicable requirements from Public Works.

- ***Economic Development Element*** *Policy ED (Economic Development) 1.11: Encourage the development of renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.*

  The subject solar facility is located in an area that is mostly vacant with sporadic residential development, away from town centers or commercial districts. The solar facility will be developed with all applicable renewable energy facility development standards as well as conditions and mitigation measures to ensure that the impacts to nearby uses and residents are minimized, including the undergrounding of gen-

tie lines as discussed above. Specifically, mitigation measures will aid in minimizing and reducing impacts including aesthetics, dust, and noise.

- *Policy ED 1.13: Ensure early discussions with Edwards Air Force Base and U.S. Air Force Plant 42 regarding new industries, such as renewable energy production facilities, to limit potential impacts on mission capabilities.*

  Staff has consulted with both Edwards Air Force Base and U.S. Air Force Plant 42, and no comments have been provided. As the Project Site is more than 35 miles away from either facility, it is not anticipated to generate potential impacts.

ZONING CODE CONSISTENCY FINDINGS

17. **PERMITTED USE IN ZONE.** The Commission finds that the Project is consistent with the A-2 zoning classification as utility-scale ground-mounted solar facility is permitted in such zone with a CUP pursuant to County Code Section 22.16.030.C (Land Use Regulations for Zones A-1, A-2, ...).

18. **REQUIRED YARDS AND LANDSCAPED BUFFER.** The Commission finds that the Project is consistent with the standards identified in County Code Section 22.140.510.E.3 (Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards), which require: (1) a minimum 30-foot setback from the property line to the solar array; (2) a 15-foot setback for perimeter fencing; and (3) a 10-foot-deep landscaped buffer along fencing that adjoins residential or agricultural uses. The Project complies with both setback requirements, and a 10-foot landscaped buffer will be installed along 230th Street West and along the solar facility boundaries in the southwest that adjoin the existing SFR on the Project Site. As there are no other SFRs or agricultural uses adjacent to the Project Site, no additional landscaping is required or proposed. Additionally, the above-mentioned County Code Section requires that fencing not exceed eight (8) feet in height and include a small animal-permeable design. The Project's fencing complies with these requirements through the inclusion of regularly spaced 12-inch openings at the base of the proposed fence.

19. **HEIGHT.** The Commission finds that the Project is consistent with the standard identified in County Code Section 22.140.510.E.3.c.iii (Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards, Height), which states that the height of the solar arrays may not exceed 25 feet. The height of the Project's solar arrays will be approximately 10 feet and maximum 25 feet with tilt.

20. **SIGNS.** The Commission finds that the Project is consistent with the standard identified in County Code Section 22.140.510.E.3.c.vii (Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards, Signs), which states that one identification sign at each entrance is permitted. One such sign at the entrance on 230th Street West will be installed. A detailed sign plan depicting such a sign will be provided as part of the Exhibit "A".

21. **NOTIFICATION OF MILITARY AND AGENCIES WITH AVIATION-RELATED FUNCTIONS.** The Commission finds that the Project is consistent with the regulations

identified in County Code Sections 22.140.510.E.3 (Renewable Energy, Utility-Scale Solar Energy Facilities, Aviation Review) and 22.140.510.H (Renewable Energy, Aviation Review), which requires the County to notify government agencies with military and/or aviation-related duties of proposed solar facilities in either Airport Influence Areas or Military Operations Areas ("MOA"). The Project Site is in an MOA. The County sent 12 notices on May 19, 2025 regarding the subject Project to the various branches of the U.S. Military, LASD Air Bureau, and Fire, among others. Only LASD Air Bureau responded in a letter dated May 27, 2025 stating that the Project will not impact its operation.

22. **RURAL OUTDOOR LIGHTING DISTRICT.** The Commission finds that the Project is consistent with the standards identified in County Code Section 22.80.050 (Rural Outdoor Lighting District, General Development Standards) and 22.140.510.E.3.c.iv (Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards, Lighting). The Project Site is in a Rural Outdoor Lighting District. No permanent outdoor lighting is proposed for operation. The only outdoor lighting that may be required is temporary lighting during construction, particularly during the winter season when daylight is no longer sufficient earlier in the day. Any proposed lights at the Project Site will be of a type and design in compliance with the pertinent Rural Outdoor Lighting District and renewable energy facility requirements.

CONDITIONAL USE PERMIT

23. **The Commission finds that the proposed use at the site will not adversely affect the health, peace, comfort, or welfare of persons residing or working in the surrounding area; will not be materially detrimental to the use, enjoyment, or valuation of property of other persons located in the vicinity of the site; and will not jeopardize, endanger, or otherwise constitute a menace to the public health, safety, or general welfare.** The Project will be a passive low-intensity use located in a rural area surrounded by vacant land and large-lot single-family residences; and is not expected to adversely affect public health, safety, or the welfare of nearby residents. The solar facility will be unstaffed during operation, with only occasional maintenance visits, minimizing traffic and noise. A 30-foot setback, a 10-foot landscaped buffer with drought-tolerant vegetation, and perimeter fencing will further reduce potential impacts. Construction will last approximately seven (7) months with balanced on-site grading and required dust control measures. The landscaped buffer will be irrigated and maintained throughout the life of the Project to ensure continued compatibility with the surrounding area.

24. **The Commission finds that the proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping and other development features prescribed in Title 22 (Planning and Zoning) of the County Code, or as is otherwise required in order to integrate said use with the uses in the surrounding area.** The Commission finds that the 31-acre area of the solar facility on the 40-acre Project Site is adequate in size and shape to accommodate all required development features, including yards, setbacks, fencing, landscaping, access, parking, and loading facilities, in compliance with Title 22

(Planning and Zoning) of the County Code. The site's gentle topography supports the proposed utility-scale solar facility and associated infrastructure. The development will be fully contained within perimeter fencing set back 30 feet from the property lines, with landscaping provided within the setbacks. Internal access, parking, and loading areas will be integrated into the site layout to ensure functional and orderly development consistent with surrounding rural uses.

25. **The Commission finds that the proposed site is adequately served by highways or streets of sufficient width and improved as necessary to carry the kind and quantity of traffic such use would generate, and by other public or private service facilities as are required.** The Commission finds that the proposed site is adequately served by existing roadways capable of supporting the type and volume of traffic generated by the Project. The Project Site is accessed from 230th Street West, a 50-foot-wide Secondary Highway as designated in the County Master Plan of Highways, and is located approximately 1,200 feet north of West Avenue D, also known as State Highway 138, which is designated as a Proposed Expressway. Construction traffic will primarily utilize 230th Street West, which is sufficient in width and capacity to accommodate temporary increases in traffic volume. Once operational, the Project is expected to generate minimal traffic, with no more than 10 maintenance visits per year, resulting in negligible impacts on the surrounding transportation network.

26. The Commission finds that to ensure continued compatibility between the Project and the surrounding land uses, it is necessary to limit the grant term of the CUP to 35 years.

SUPPLEMENTAL FINDINGS – **Utility-Scale Solar Energy Facilities**

27. **The Commission finds that the Project complies with all applicable development standards.** The Project complies with all applicable renewable energy development standards, including those related to setbacks, height, landscaping, and fencing, as outlined in the County Code. The solar arrays and associated structures will not exceed 25 feet in height, and perimeter fencing up to eight feet high will be installed within the required 30-foot setback, but no closer than 15 feet from the public right-of-way. A 10-foot-wide landscaped buffer will be provided within this setback along public rights-of-way and adjacent to existing single-family residences. Final plans detailing signage and lighting, consistent with general development standards, will be submitted post-hearing in accordance with CUP conditions.

28. **The Commission finds that the Project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers.** The Project has been carefully sited and designed to minimize significant environmental impacts, particularly to sensitive wildlife such as birds and bats. To reduce the potential for harm to protected avian species, the Project includes comprehensive mitigation measures such as pre-construction nesting bird surveys (MM BIO-1), specific protections for Swainson's hawks (MM BIO-2), and operational standards like orienting panels vertically at night to deter bird perching (MM BIO-11). These measures

are intended to prevent disruption of nesting, foraging, and flight behavior; and ensure construction does not occur near active nests without appropriate biological oversight. Additionally, the Project minimizes environmental impacts through design features and procedural safeguards, implementation of biological monitoring, and educational programs for workers (MM BIO-3). Wildlife-friendly fencing with small-animal permeable design is required pursuant to the renewable energy ordinance requirements, reducing the potential for habitat fragmentation and entrapment. Avoidance buffers, habitat monitoring, and adaptive management strategies further protect sensitive species such as burrowing owls, desert kit fox, and American badger, and Crotch's bumble bee (MM BIO-6, BIO-7, BIO-8, and BIO-9). Collectively, these commitments ensure the Project is constructed and operated in a manner that avoids or mitigates biological impacts and maintains compatibility with the surrounding natural environment.

29. **The Commission finds that the Project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork.** The Project is sited and designed to minimize site disturbance, including grading, brush clearance, and other forms of earthwork. The Project Site is predominantly flat, allowing for minimal grading limited to essential components such as perimeter and internal access roads, retention and infiltration basins, water tank pads, and areas for battery energy storage and related electrical equipment. The solar array field itself will remain ungraded, with support piles driven directly into the ground to preserve the natural topography and soil structure. Existing vegetation will remain in place beneath the panels and will be managed through mowing to a maximum height of six (6) inches. Additionally, any areas disturbed during construction or operation that require revegetation will be maintained and monitored until successful reestablishment is achieved, as required by the Project's conditions of approval.

30. **The Commission finds that the proposed vegetation required along the facility perimeter fencing sufficiently provides a buffer from adjacent residential and agricultural uses through variable placement and muting of frontage or other sensitive viewsheds so as to provide a natural visual transition between the Project and its surroundings.** The proposed vegetation along the solar facility's perimeter fencing sufficiently provides a visual buffer from adjacent residential uses, helping to soften views of the solar facility and create a natural transition to the surrounding rural environment. The draft landscape plan includes a 10-foot-wide buffer planted with a diverse mix of drought-tolerant native shrubs and trees, including species such as California buckwheat, brittlebush, big sagebrush, California cudweed, and Tecate cypress. These plantings will be installed with appropriate spacing and layout to ensure variable height and density, providing effective screening along 230th Street West and adjacent property lines. The landscaping will be mulched to conserve water and suppress weeds, and the planting areas will be irrigated until establishment. Collectively, these design elements are intended to create a visually cohesive and environmentally appropriate buffer that integrates the Project into its rural surroundings.

31. **The Commission finds that the proposed vegetation sufficiently provides ground cover to the satisfaction of a County biologist.** The proposed vegetation sufficiently

provides ground cover to the satisfaction of the County biologist. The planting palette includes six (6) shrub species, such as California buckwheat, brittlebush, big sagebrush, and California cudweed, along with Tecate cypress as a tree species, all spaced to ensure adequate coverage. A mulch layer of three (3) inches will be applied to all shrub beds to conserve moisture, suppress weed growth, and promote plant health.

32. **The Commission finds that the proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.** The proposed vegetation sufficiently provides a buffer and ground cover to the satisfaction of the County biologist. The perimeter landscape plan incorporates a mix of native, drought-tolerant plant species specifically selected for their suitability to the local climate and their ability to establish effective visual and ecological buffers. The County biologist has reviewed and provided input on the plant selection and layout to ensure it achieves the intended buffering and ground cover functions. The final landscape plan will be subject to the County biologist's approval, as required by the conditions of the Conditional Use Permit, and all plantings will be irrigated and maintained until successfully established and throughout the operational life of the Project. The MMRP contains requirements establishing the timing of each biological mitigation measure to ensure that compliance will be accomplished in a timely manner and verified to the satisfaction of a County biologist.

33. **The Commission finds that the Project would not be detrimental to the function of a Military Operations Area and would not pose a public or safety hazard to personnel or the public.** While the Project Site is in an MOA, no comments have been received from Edwards Air Force Base and U.S. Air Force Plant 42, which were both consulted. As the Project Site is located more than 35 miles away from Edwards Air Force Base and U.S. Air Force Plant 42, it is not likely to generate any impacts to their operations or facilities. Only LASD Air Bureau responded in a letter dated May 27, 2025 stating that the Project will not impact its operation. Therefore the Project would not have detrimental impact on military operations in the area and would not pose a public or safety hazard to personnel or the public.

ENVIRONMENTAL FINDINGS

34. After consideration of the MND and MMRP, together with the comments received during the public review process, the Commission finds on the basis of the whole record before it that there is no substantial evidence that the Project as conditioned will have a significant effect on the environment, and further finds that the MND reflects the independent judgment and analysis of the Commission.

35. The Commission finds that the MMRP, prepared in conjunction with the MND, identifies in detail how compliance with its measures will mitigate or avoid potential adverse impacts to the environment from the Project. The Commission further finds that the MMRP's requirements are incorporated into the conditions of approval for this

Project, and that approval of this Project is conditioned on the Permittee's compliance with the attached conditions of approval and MMRP.

36. The Commission finds that the Permittee is subject to payment of the California Department of Fish and Wildlife fees related to the Project's effect on wildlife resources pursuant to section 711.4 of the California Fish and Game Code.

ADMINISTRATIVE FINDINGS

37. **LOCATION OF DOCUMENTS.** The location of the documents and other materials constituting the record of proceedings upon which the Commission's decision is based in this matter is at LA County Planning, 13th Floor, Hall of Records, 320 West Temple Street, Los Angeles, California 90012. The custodian of such documents and materials shall be the Section Head of the North County Development Services Section, LA County Planning.

BASED ON THE FOREGOING, THE REGIONAL PLANNING COMMISSION CONCLUDES THAT:

A. The proposed use with the attached conditions will be consistent with the adopted General Plan.

B. The proposed use at the site will not adversely affect the health, peace, comfort or welfare of persons residing or working in the surrounding area, will not be materially detrimental to the use, enjoyment or valuation of property of other persons located in the vicinity of the site, and will not jeopardize, endanger or otherwise constitute a menace to the public health, safety or general welfare.

C. The proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping and other development features prescribed in Title 22, or as is otherwise required in order to integrate said use with the uses in the surrounding area.

D. The proposed site is adequately served by highways or streets of sufficient width and improved as necessary to carry the kind and quantity of traffic such use would generate, and by other public or private service facilities as are required.

E. The Project complies with all applicable development standards.

F. The Project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers.

G. The Project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork.

H. The proposed vegetation required along the facility perimeter fencing sufficiently provides a buffer from adjacent residential and agricultural uses through variable placement and muting of frontage or other sensitive viewsheds so as to provide a natural visual transition between the Project and its surroundings.

I. The proposed vegetation sufficiently provides ground cover to the satisfaction of the County biologist.

J. The proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.

K. The Project would not be detrimental to the function of a Military Operations Area and would not pose a public or safety hazard to personnel or the public.

THEREFORE, THE REGIONAL PLANNING COMMISSION:

1. Certifies that the MND for the Project was completed in compliance with CEQA and the State and County CEQA Guidelines related thereto; certifies that it independently reviewed and considered the MND and that the MND reflects the independent judgment and analysis of the Commission as to the environmental consequences of the Project; certifies that it considered the MMRP, finding that it is adequately designed to ensure compliance with the mitigation measures during Project implementation; determined that on the basis of the whole record before the Commission that there is no substantial evidence that the Project will have a significant effect on the environment; adopts the MND and finds that the MMRP is adequately designed to ensure compliance with the mitigation measures during Project implementation; and

2. Approves **CONDITIONAL USE PERMIT NO. RPPL2023005137**, subject to the attached conditions.

ACTION DATE: August 20, 2025

VOTE: 4:0:0:0

Concurring: Duarte-White, Louie, O'Connor, Hastings

Dissenting: Moon

Abstaining: 0

Absent: 0

SD:SC

August 7, 2025

C: Zoning Enforcement, Building and Safety

LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

CONDITIONS OF APPROVAL
PROJECT NO. PRJ2023-002405-(5)
CONDITIONAL USE PERMIT NO. RPPL2023005137
ENVIRONMENTAL PLAN NO. RPPL2023005138

PROJECT DESCRIPTION

The project is to authorize the development, operation, and maintenance of a ground-mounted utility-scale photovoltaic solar energy facility with an accessory battery energy storage system ("Project" or "solar facility") on a property located at the southeast of the intersection of 230th Street West and West Avenue C-8 in the unincorporated community of Lancaster, subject to the following conditions of approval:

GENERAL CONDITIONS

1. Unless otherwise apparent from the context, the term "Permittee" shall include the applicant, owner of the property, and any other person, corporation, or other entity making use of this grant.

2. This grant shall not be effective for any purpose until the Permittee, and the owner of the subject property if other than the Permittee, have filed at the office of the Los Angeles County ("County") Department of Regional Planning ("LA County Planning") their affidavit stating that they are aware of and agree to accept all of the conditions of this grant, and that the conditions of the grant have been recorded as required by Condition No. 6, and until all required monies have been paid pursuant to Condition Nos. 9, 10, and 13. Notwithstanding the foregoing, this Condition No. 2 and Condition Nos. 3, 4, and 8 shall be effective immediately upon the date of final approval of this grant by the County.

3. The Permittee shall defend, indemnify, and hold harmless the County, its agents, officers, and employees from any claim, action, or proceeding against the County or its agents, officers, or employees to attack, set aside, void, or annul this permit approval, which action is brought within the applicable time period of Government Code section 65009 or any other applicable limitations period. The County shall promptly notify the Permittee of any claim, action, or proceeding and the County shall reasonably cooperate in the defense. If the County fails to promptly notify the Permittee of any claim, action, or proceeding, or if the County fails to cooperate reasonably in the defense, the Permittee shall not thereafter be responsible to defend, indemnify, or hold harmless the County.

4. In the event that any claim, action, or proceeding as described above is filed against the County, the Permittee shall within ten days of the filing make an initial deposit with LA County Planning in the amount of up to $5,000.00, from which actual costs and expenses shall be billed and deducted for the purpose of defraying the costs or expenses involved in LA County Planning's cooperation in the defense, including but not limited to, depositions, testimony, and other assistance provided to Permittee or Permittee's counsel.

If during the litigation process, actual costs or expenses incurred reach 80 percent of the amount on deposit, the Permittee shall deposit additional funds sufficient to bring the balance up to the amount of $5,000.00. There is no limit to the number of supplemental deposits that may be required prior to completion of the litigation.

At the sole discretion of the Permittee, the amount of an initial or any supplemental deposit may exceed the minimum amounts defined herein. Additionally, the cost for collection and duplication of records and other related documents shall be paid by the Permittee according to County Code Section 2.170.010.

5. If any material provision of this grant is held or declared to be invalid by a court of competent jurisdiction, the permit shall be void and the privileges granted hereunder shall lapse.

6. Prior to the use of this grant, the Permittee, or the owner of the subject property if other than the Permittee, shall **record the terms and conditions** of the grant in the office of the County Registrar-Recorder/County Clerk (i.e. Recorder's Office). In addition, upon any transfer or lease of the property during the term of this grant, the Permittee, or the owner of the subject property if other than the Permittee, shall promptly provide a copy of the grant and its conditions to the transferee or lessee of the subject property.

7. **This grant shall terminate on August 20, 2060**. Entitlement to use of the property thereafter shall be subject to the regulations then in effect. If the Permittee intends to continue operations after such date, whether or not the Permittee proposes any modifications to the use at that time, the Permittee shall file a new conditional use permit application with LA County Planning, or shall otherwise comply with the applicable requirements at that time. Such application shall be filed at least twelve months prior to the expiration date of this grant and shall be accompanied by the required fee. In the event that the Permittee seeks to discontinue or otherwise change the use, notice is hereby given that the use of such property may require additional or different permits and would be subject to the then-applicable regulations.

8. This grant shall expire unless used within two (2) years from the date of final approval of the grant. A single one-year time extension may be requested in writing and with the payment of the applicable fee prior to such expiration date.

9. The subject property shall be maintained and operated in full compliance with the conditions of this grant and any law, statute, ordinance, or other regulation applicable to any development or activity on the subject property. Failure of the Permittee to cease any development or activity not in full compliance shall be a violation of these conditions. No provision of any easement of any other encumbrance on the property shall exempt the Permittee and/or property owner from compliance with these conditions and applicable regulations. Inspections shall be made to ensure compliance with the conditions of this grant as well as to ensure that any development undertaken on the subject property is in accordance with the approved site plan on file. The Permittee shall deposit with the County the sum **$22,800.00**

which shall be placed in a performance fund and be used exclusively to reimburse LA County Planning for all expenses incurred while inspecting the premises to determine the Permittee's compliance with the conditions of this grant. The fund provides for **50** inspections.

Inspections may be unannounced. Inspections may be conducted utilizing any available technologies, including, but not limited to, unmanned aircraft systems (UAS). Use of an UAS requires the consent of the Permittee pursuant to LA County Planning's UAS policy, which may be updated from time to time, and which shall be provided to the Permittee upon request.

If additional inspections are required to ensure compliance with the conditions of this grant, or if any inspection discloses that the subject property is being used in violation of any one of the conditions of this grant, the Permittee shall be financially responsible and shall reimburse LA County Planning for all additional enforcement efforts necessary to bring the subject property into compliance. The amount charged for additional inspections shall be $456.00 per inspection, or the current recovery cost established by LA County Planning at the time any additional inspections are required, whichever is greater.

10. Within five (5) working days from the day after the appeal period ends **September 10, 2025,** the Permittee shall remit processing fees at the County Registrar-Recorder/County Clerk Office (i.e. County Clerk Office), payable to the County of Los Angeles, in connection with the filing and posting of a Notice of Determination ("NOD") for this project and its entitlements in compliance with section 21152 of the Public Resources Code. Unless a Certificate of Exemption is issued by the California Department of Fish and Wildlife pursuant to section 711.4 of the California Fish and Game Code, the Permittee shall pay the fees in effect at the time of the filing of the NOD, as provided for in section 711.4 of the Fish and Game Code, currently **$3,043.75** ($2,968.75 for a Negative Declaration or Mitigated Negative Declaration plus $75.00 processing fee). No land use project subject to this requirement is final, vested or operative until the fee is paid.

11. The Permittee shall comply with all mitigation measures identified in the Mitigation Monitoring Program ("MMP"), which are incorporated by this reference as if set forth fully herein.

12. Within thirty (30) days of the date of final approval of the grant by the County, the Permittee shall record a covenant and agreement, which attaches the MMP and agrees to comply with the mitigation measures imposed by the Mitigated Negative Declaration for this project, in the Recorder's Office. Prior to recordation of the covenant, the Permittee shall submit a draft copy of the covenant and agreement to LA County Planning for review and approval. As a means of ensuring the effectiveness of the mitigation measures, the Permittee shall submit annual mitigation monitoring reports to LA County Planning for approval or as required. The reports shall describe the status of the Permittee's compliance with the required mitigation measures.

13. The Permittee shall deposit an initial sum of **$6,000.00** with LA County Planning within thirty (30) days of the date of final approval of this grant in order to defray the cost of reviewing and verifying the information contained in the reports required by the MMP. The Permittee shall replenish the mitigation monitoring account if necessary until all mitigation measures have been implemented and completed.

14. Notice is hereby given that any person violating a provision of this grant is guilty of a misdemeanor. Notice is further given that the Regional Planning Commission ("Commission") or a Hearing Officer may, after conducting a public hearing, revoke or modify this grant, if the Commission or Hearing Officer finds that these conditions have been violated or that this grant has been exercised so as to be detrimental to the public's health or safety or so as to be a nuisance, or as otherwise authorized pursuant to Chapter 22.238 of the County Code.

15. All development pursuant to this grant must be kept in full compliance with the County Fire Code to the satisfaction of the County Fire Department ("Fire").

16. All development pursuant to this grant shall conform with the requirements of the County Department of Public Works ("Public Works") to the satisfaction of said department.

17. All development pursuant to this grant shall comply with the requirements of Title 22 of the County Code and of the specific zoning of the subject property, unless specifically modified by this grant, as set forth in these conditions, including the approved Exhibit "A," or a revised Exhibit "A" approved by the Director of LA County Planning ("Director").

18. The Permittee shall maintain the subject property in a neat and orderly fashion. The Permittee shall maintain free of litter all areas of the premises over which the Permittee has control.

19. All structures, walls and fences open to public view shall remain free of graffiti or other extraneous markings, drawings, or signage that was not approved by LA County Planning. These shall include any of the above that do not provide pertinent information about said premises. The only exceptions shall be seasonal decorations or signage provided under the auspices of a civic or non-profit organization.

    In the event of graffiti or other extraneous markings occurring, the Permittee shall remove or cover said markings, drawings, or signage within 30 days of such notification, weather permitting. Paint utilized in covering such markings shall be of a color that matches, as closely as possible, the color of the adjacent surfaces.

20. The subject property shall be developed and maintained in substantial conformance with the plans marked Exhibit "A." If changes to any of the plans marked Exhibit "A" are required as a result of instruction given at the public hearing, **one digital copy of** a modified Exhibit "A" shall be submitted to LA County Planning by **October 20, 2025**.

21. In the event that subsequent revisions to the approved Exhibit "A" are submitted, the Permittee shall submit **one digital copy of** the proposed plans to the Director for review and approval. All revised plans must substantially conform to the originally approved Exhibit "A". All revised plans must be accompanied by the written authorization of the property owner(s) and applicable fee for such revision.

PERMIT-SPECIFIC CONDITIONS – CONDITIONAL USE PERMIT (UTILITY-SCALE SOLAR ENERGY FACILITY

22. This grant shall authorize the construction, operation, and maintenance of a ground-mounted utility-scale solar energy facility with an accessory BESS on a 40-acre site.

23. Within 60 days of the date of final approval of the grant by the County or prior to ground disturbance and/or issuance of grading permit, whichever is first, the permittee shall submit to LA County Planning a final Landscaping and Revegetation Plan ("LRP") for review and approval and shall comply with all requirements of such LRP. Such plan shall include wildlife-friendly perimeter fences up to eight (8) feet in height that encloses the solar facility and a 10-foot landscape buffer along 230^{h} Street West and along the southwestern boundary of the solar facility where the facility adjoins an existing SFR, subject to the approval of the Director.

24. Within 60 days of the date of final approval or prior to ground disturbance and/or issuance of grading permit, whichever is first, the permittee shall submit to LA County Planning a detailed signage plan. Such plans shall include:

    a. One (1) pole-mounted project identification sign at each temporary or permanent ingress or egress point.
    b. Signs shall include owner and emergency contact information.
    c. No other signs shall be posted other than safety, directional, and warning signs.

25. Within 60 days of the date of final approval, the permittee shall submit to LA County Planning an updated Exhibit "A" relocating the accessory BESS to a location within the Project Site that is not directly adjacent to existing SFR, subject to review and approval of the Director, prior to the issuance of any grading or building permits for the accessory BESS.

26. The permittee shall irrigate the perimeter landscaping (referenced in Condition No. 23) for a minimum of three (3) years or until the landscaping has successfully established. The permittee shall ensure that the perimeter landscaping remains successfully established to the satisfaction of LA County Planning throughout the entire grant term. The permittee shall maintain all landscaping in a neat, clean, and healthful condition and shall properly prune, weed, remove litter, fertilize, and replace plants when necessary. The permittee shall continue irrigation of perimeter landscaping and revegetate as reasonably necessary to maintain the health of the landscaping throughout the life of this grant to the satisfaction of LA County Planning. Perimeter fence screening slats or other material shall be maintained in good condition and missing, broken, tattered, or torn pieces shall be repaired and/or

replaced as necessary. Any area on the Project Site in need of revegetation because of Project construction or operation shall also be maintained until successfully reestablished to the satisfaction of the Director.

27. Prior to any ground disturbance and/or the issuance of grading permits, the permittee shall submit a dust control plan, including a dust plume response plan, for review and approval by the Antelope Valley Air Quality Management District ("AVAQMD") and confirmation by LA County Planning.

28. Appropriate training for respiratory protection shall be provided to construction workers prior to construction activities. Dust masks (National Institute for Occupational Safety and Health [NIOSH] approved) shall be provided with proper training to construction workers to mitigate against dust exposure and possibly Valley Fever during high-wind events and/or dust-generating activities. Evidence of this training shall be kept on site and shall be made available to County staff upon request.

29. The permittee shall abide by the following dust control measures:

    a. During site preparation and during operations, retain or mow vegetation in and around array sites to prevent vegetative root loss. Disking, tilling, or grading of array sites is prohibited except where specifically authorized by Public Works. Roads, drainage basins, equipment pads, and any other required earthwork authorized by Public Works shall be done in compliance with grading regulations;

    b. Maintain dust control using (to the extent applicable) phased earthwork, watering, clean gravel, composted wood chips not to exceed six (6) inches in depth, application of non-toxic soil stabilizers on disturbed areas, revegetation, limited public access on unpaved areas, speed limits on construction sites, and other dust control measures used during construction, operations, and removal and restoration activities;

    c. If required by AVAQMD, during construction, provide on the Project Site weather stations, monitors with wind speed, wind direction, temperature and humidity sensors, and mechanical dust-monitoring devices, placed to the satisfaction to AVAQMD, to ensure the effectiveness of the Project's dust control plan;

    d. Establish vegetation along certain portions of the Project perimeter, where required by the Landscape and Revegetation Plan, as early as feasible following Project approval for both visual screening and to limit off-site movement of dust; and

    e. During ground preparation, disturbance, grading or construction, pay the costs of an on-site mitigation and conditions compliance monitor, to the satisfaction to the Director, to independently monitor and report on Project compliance. The monitor shall be on-site during all site preparation, grading, and excavation and backfilling work.

30. Prior to any ground disturbance or obtaining any grading permit, the permittee shall provide the County with a decommissioning plan ("Decommissioning Plan") in

connection with any and/or all of the terminating events described in Condition No. 31, which Decommissioning Plan shall include, at a minimum, a detailed plan for decommissioning and deconstructing the facility and for restoration of the site (collectively referred to as "decommissioning"). The Decommissioning Plan shall be developed to the satisfaction of the Director and the Director of Public Works and subject to their review and approval.

The Decommissioning Plan shall provide for, including, but not limited to, the following:

a. Removal or recycling of solar panel structures and all appurtenant above-ground equipment;

b. Removal of any on-site overhead poles and above-ground electricity lines;

c. Removal of permanent above-ground transmission lines and poles located in the public right-of-way, if determined not usable by Public Works and/or any other applicable public or private utility at the time of decommissioning;

d. Restoration of any disturbed soil and revegetation of the Project Site to its pre-construction condition, with native vegetation similar to the vegetation in the surrounding vicinity;

e. Restoration or reclamation of project roads to their pre-construction condition unless the then-existing owner of the Project Site elects to retain the improved roads for access throughout the Project Site;

f. Documentation of the pre-construction condition of the Project Site, including, but not limited to, a photographic record; and

g. Details of the performance and financial assurance guarantees described in this Condition No. 30, explaining the amounts and schedule for the provision of such guarantees.

31. Prior to any ground disturbance or obtaining any grading or building permits, the permittee shall record an easement granting access to the County for activities related to decommissioning. A draft easement document shall be submitted for review and approval by the Director and Director of Public Works, prior to easement recordation.

32. Prior to obtaining any grading permits or ground disturbance, the permittee shall provide to the County, to the satisfaction of the Director and Director of Public Works, performance and financial assurance guarantees in an amount sufficient to ensure the performance of the approved Decommissioning Plan, as described in Condition No. 29. Additionally, the permittee shall be solely responsible for the costs and expenses associated with decommissioning the Project Site after any of the terminating events described in this Condition No. 31. In the event that the performance and financial assurance guarantees are not sufficient to fully compensate the County for the cost and expense of decommissioning the Project Site, the permittee shall be responsible for compensating the County for any shortfall. In determining the sufficiency of the performance and financial assurance guarantees, the residual value of the solar panels, support structures, and other

salvageable equipment (collectively "Salvageable Property") shall be considered. The residual value of the real property itself shall not be considered or included in the determination of whether the performance and financial guarantees are sufficient.

With respect to the performance and financial assurance guarantees, the following requirements shall apply:

a. The permittee shall ensure that such guarantees are detailed in the approved Decommissioning Plan to the satisfaction of the Director and Director of Public Works, and that such Decommissioning Plan shall explain the amounts and schedule for the provision of such guarantees.

b. The permittee shall provide a report to the Director every five (5) years after the date of final approval of this grant to confirm that the performance and financial assurance guarantees are sufficient to ensure performance and implementation of the Decommissioning Plan. The report shall be subject to review and approval by the Director and Director of Public Works particularly as to whether the performance and financial assurance guarantees are adequate to meet existing conditions at the time of the report.

c. A decommissioning pro forma summarizing the residual value of the Salvageable Property shall be included in the report. The pro forma shall include, at a minimum, the expected revenue from all Salvageable Property, as defined in this Condition No. 31, the then-current cost of decommissioning the site, as required by the approved Decommissioning Plan, and the then-current value of any performance and financial assurance guarantees that have been provided as of the date of such report. In the event it is determined that the performance and financial assurance guarantees as insufficient to perform the decommissioning of the site as required by the approved Decommissioning Plan, the permittee shall be required to provide additional performance and financial assurance guarantees to the satisfaction of the Director and the Director of Public Works, no less than 10 years before the expiration of the grant;

d. Any funds not used by the County in connection with decommissioning the site shall be returned to the permittee; and

e. The performance and financial assurance guarantees may consist of, including, but not limited to, one or more of the following, to the satisfaction of the Director and Director of Public Works:

    1) An irrevocable letter of credit;

    2) A surety bond;

    3) An appropriate insurance policy;

    4) A trust fund or escrow account, established and maintained in accordance with approved financial assurances and practices to guarantee that decommissioning the site will be completed in accordance with the approved Decommissioning Plan, as approved by Public Works;

5) Other financial assurances as reviewed and approved by the respective County administrative offices, in consultation with LA County Planning; or

6) A corporate guarantee shall not be considered a sufficient financial assurance guarantee.

33. Upon discontinuance of the permittee's operation as set forth in Condition No. 33, abandonment of the project in whole or in part, or termination of this grant as described in Condition No. 7, and in the event that a new permit application is not timely filed for a continued similar use or reuse of the site, the permittee shall perform decommissioning in accordance with the approved Decommissioning Plan, or compensate the County for use of a County-contracted consultant to perform such decommissioning. In the alternative, and at the County's sole election, the County shall be entitled to use any performance and/or financial assurance guarantees, as described in Condition No. 31(e), to perform the decommissioning itself or to contract for such decommissioning. The permittee shall grant the County the necessary access to the subject property to perform such decommissioning or to allow a County-retained contractor to perform such decommissioning.

34. In the event that any portion of the solar field is not in operational condition for a consecutive period of 24 months, operations for the portion of the Project Site shall be deemed to have been discontinued and that portion of the facility shall be removed from the Project Site within six (6) months from the date that written notice is sent to the permittee from LA County Planning. Within this six-month period, the permittee may provide the Director a written request and justification for an extension of up to 12 months to resume operations of that portion of the site, which request shall be subject to the satisfaction and approval of the Director. A second written request and justification for a second extension of up to 12 months may also be submitted, which the Director may grant if the request is adequately justified based on the Director's determination. In no event shall the operations of the solar field or portion of the solar field be discontinued for more than 36 months from the date such operations were first deemed discontinued without being decommissioned pursuant to the approved Decommissioning Plan. Further, in no event shall any extension of the period to resume operations of any portion of the Project Site pursuant to this Condition No. 30 be deemed to extend the term or expiration date of this grant.

35. Nothing in this grant shall prevent the permittee from installing more efficient solar panels in the future or increasing output, provided the footprint and overall disturbance area of the project does not substantially change. At such time the permittee wishes to install more efficient solar panels, a Revised Exhibit "A" shall be submitted to the County for such installation.

36. The project shall comply with all requirements of the Rural Outdoor Lighting District. If lighting is proposed, a lighting plan shall be submitted to LA County Planning for review and approval by the Director. The Lighting Plan may be included in the Project Electrical Plans as separate sheets.

36. The water tanks on the subject property shall be painted an earth-tone color (beige, sand, taupe or similar colors) to blend in with the surroundings, subject to review and approval by the Director.

37. Water use for the facility shall be limited to a maximum of 13 acre-feet for construction and 0.2 acre-feet per year for operation. The permittee shall maintain a daily log of the amount of water used during the construction. The permittee shall complete a monthly water usage report within eight days following the conclusion of each calendar month. This log shall be made available to LA County Planning upon request. The permittee shall first attempt to use recycled water for the Project. If recycled water is not available or feasible, subject to verification by the Director, then alternative water sources may be used, such as water from wells.

38. On-site and off-site generation-tie lines shall be placed underground to the satisfaction of Public Works.

39. Mobile sanitation facilities and a potable drinking water supply shall be made available to workers during construction of the Project subject to the satisfaction of the County Department of Public Health ("Public Health").

40. The permittee shall make use of the manufacturer's photovoltaic solar panel recycling program. Other panel recycling programs may be used as well subject to approval of the Director.

41. The permittee shall provide parking as required by the County Code, calculated at a parking ratio of one parking space for each two persons employed. The unmanned solar photovoltaic facility does not include operations buildings or other buildings but does require occasional servicing, which requires one space per two persons servicing the facility. These spaces do not have to be marked. During construction parking shall be provided on-site and/or off-site at a location approved by the Director.

42. Temporary screening of construction and staging areas (e.g. fencing with fabric or slats) shall be installed prior to construction/ground-disturbing activities to the satisfaction of the Director.

43. Wildlife-friendly perimeter fencing shall be erected subject to review and approval by the Director.

44. The use of insecticides, herbicides, anti-coagulant rodenticides or any toxic chemical substance which has the potential to significantly degrade biological resources shall be prohibited, except where necessary to protect or enhance the habitat itself, such as for eradication of invasive plant species or habitat restoration, and where there are no feasible alternatives that would result in fewer adverse effects to the habitat value of the site. Such use shall be subject to approval by LA County Planning.

45. The LA County Planning project number, conditional use permit number and lease holder contact information shall be prominently displayed on the facility accessible to the public where it can be easily viewed at or near eye level.

46. The permittee shall comply with all conditions set forth in the attached letters from Public Works, County Department of Parks and Recreation, Public Health, and Fire letters in the attachments.

Attachments:

Exhibit D-1	Public Works Letter dated December 23, 2024 Fire Department Letters dated December 19, 2023 Parks and Recreation letter dated December 19, 2023 Public Health Letter dated May 15, 2024
Exhibit D-2	Mitigation Monitoring Program (pages 1- 16)

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

MARK PESTRELLA, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

December 23, 2024

IN REPLY PLEASE
REFER TO FILE: LD-4

TO: Samuel Dea
North County Development Services
Department of Regional Planning

Attention Soyeon Choi

FROM: James Chon
Land Development Division

CONDITIONAL USE PERMIT (RPPL2023005137)
ASSESSOR'S MAP BOOK 3278, PAGE 25, PARCEL 1
UNINCORPORATED LANCASTER

As requested, Public Works reviewed the zoning permit application and site plan for the proposed project. The project proposes a five-megawatt, ground-mounted, commercial solar and a five-megawatt, accessory, battery energy storage system facility located on approximately 29 acres of a 40-acre parcel.

☒ Public Works recommends that the conditions shown below be applied to the project if ultimately approved by the advisory agency.

☐ Public Works has comments on the submitted documents; therefore, a Public Hearing shall NOT be scheduled until the comments have been addressed.

1. Street

1.1. Prior to issuance of a grading or building permit, submit street improvement plans to Public Works, through the EPIC-LA portal under "Public Improvement Plans: Street Plans," that reflects the following for review and approval:

Be advised that we currently have no known County construction project within the limits of your project. Should a County project be scheduled and constructed ahead of the applicant's development, a pavement moratorium may be imposed that would restrict any pavement work for two

years. Exceptions could be made if acceptable rehabilitation measures are provided. The applicant is encouraged to monitor https://pw.lacounty.gov/gmed/lacroads/Find.aspx periodically to determine if any future County projects have been scheduled or to determine whether a pavement moratorium currently exist along streets fronting the project location.

1.1.1. Make an offer of private and future street right-of-way, 32 feet from the street centerline, along the property frontage on West Avenue C-8, 227th Street West, and the southerly side of the property line.

1.1.2. Dedicate a 10-foot slope easement beyond the offer of all private and future street.

For questions regarding the dedication process, contact Diego Rivera of Public Works, Land Development Division, at (626) 458-4915 or dirivera@pw.lacounty.gov.

1.1.3. Construct driveway approaches on 230th Street West, based on Los Angeles County Rural Standard Plan, and pave the drive access up to the edge of existing pavement (two percent maximum slope). A minimum four-feet clearance shall be kept from proposed driveway to any utility pole.

1.1.4. Repair and replace any improvements damaged during construction.

1.1.5. Underground all new utility lines less than 50kV.

1.1.6. Submit preconstruction and post-construction street pavement condition evaluation reports, along the construction traffic route, to Public Works for review and approval. The timing of any necessary repair or reconstruction on all streets shall be determined by Public Works.

1.1.7. Submit the project's fair-share calculation of the street pavement reconstruction, along the construction traffic route, to Public Works for review and approval and contribute the project's fair share. The timing of the project's fair share payment shall be determined by Public Works.

1.1.8. Provide access rights to neighboring lots to have access to the public road from West Avenue C-8 and the southerly side of the lot.

1.2. Prior to issuance of a Certificate of Occupancy, construct all required street improvements and dedications.

For questions regarding the street conditions, please contact Pemaneh Abaghi of Public Works, Land Development Division, at (626) 979-5417 or pabaghi@pw.lacounty.gov.

2. Drainage

2.1. Prior to issuance of a Certificate of Occupancy, comply with the approved hydrology study and LID Plan.

For questions regarding the drainage condition, please contact Christian Ascencio of Public Works, Land Development Division, at (626) 458-4921 or cascencio@pw.lacounty.gov.

3. Water

3.1. Prior to issuance of a Certificate of Occupancy, comply with all the requirements stipulated by the Will Serve letter issued by the water purveyor.

For questions regarding the water condition, please contact Ms. Abaghi of Public Works, Land Development Division, at (626) 979-5417 or pabaghi@pw.lacounty.gov.

4. Geology

4.1. Prior to issuance of a grading or building permit, comply with the approved geotechnical report.

For questions regarding the geology condition, please contact Karin Burger of Public Works, Geotechnical and Materials Engineering Division, at (626) 458-7989 or kburger@pw.lacounty.gov.

5. Environmental

5.1. Any damaged or unusable panels shall be collected and loaded into standard enclosed trucks and transported to a recycling or disposal facility as required by local or State regulations at the time of removal.

For questions regarding the environmental condition, please contact Lance Cervantes of Public Works, Environmental Programs Division, at (626) 458-3590 or lcervantes@pw.lacounty.gov.

If you have any questions or require additional information, please contact Ed Gerlits of Public Works, Land Development Division, at (626) 458-4953 or egerlits@pw.lacounty.gov.

DK:la
P:\ldpub\SUBPCHECK\Plan Checking Files\CUP\RPPL2023005137 - 3278025001\2024-10-16 Submittal\DPW_Cleared_2024-11-19_RPPL2023005137.docx

COUNTY OF LOS ANGELES FIRE DEPARTMENT
FIRE PREVENTION DIVISION

Land Development Unit
5823 Rickenbacker Road
Commerce, CA 90040
Telephone (323) 890-4293, Fax (323) 890-9783

EPIC-LA NUMBER:	RPPL2023005137	PROJECT NUMBER:	Utility Scale Solar Facility @ 3278025001
CITY/COMMUNITY:	West Antelope Valley	STATUS:	Cleared
PROJECT ADDRESS:		DATE:	12/19/2023

CONDITIONS

1. A perimeter interior roadway is required around the entire solar array field.
2. The proposed solar array fields will require a minimum of one entry/ exit location.
3. In addition to the interior perimeter Fire Department access road, the design of the solar array field necessitates the need for additional interior on-site Fire Department access roads going in the directions north to south and east to west.
4. The fire apparatus on-site & off-site access roads shall be installed and maintained in a drivable condition for the duration of the solar project.
5. The fire apparatus on-site & off-site access roads shall be installed prior to occupancy or operation of the facility.
6. The minimum roadway width within the solar array field is 20 feet, clear-to-the sky, when there is no proposed or existing building on-site.
7. Provide a minimum centerline turning radius of 32 feet, with an inner radius of 22 feet and an outer radius of 42 feet, for each turn in the solar array field.
8. The fire apparatus on-site & off-site access roads for the solar array field shall have a soil compaction of 90%, OR the apparatus access road shall be excavated and re-compacted to 90% with no proposed buildings.
9. Gates Requirements: (1) The onsite ingress/ egress gate shall be located on the address side of the property; (2) The onsite ingress/ egress gate width shall be a minimum of 2 feet, clear-to-sky, with all gate hardware clear of the roadway width when a buildings is proposed; (2) The onsite ingress/ egress gate width shall be a minimum of 20 feet, clear-to-sky, with all gate hardware clear of the roadway width when a building(s) is not proposed; (3) The location of the gate shall be located a minimum of 50 feet from the public right-of-way; (4) The facility emergency contact information shall be provided with each limited access device, per County of Los Angeles Fire Department Regulation 5, and shall be clearly indicated with an appropriate placard at each ingress location. The minimum size of the placard shall be 12 inches X 12 inches; (5) All locking devices shall comply with the County of Los Angeles Fire Department Regulation 5, Compliance for Installation of Emergency Access Devices; (6) No interior gates permitted on the on-site access roads.
10. A minimum of one water tank is required for the proposed solar array field. The water tank is to be located near the address side entry/ exit gates and is to be indicated on the site plan.
11. This development requires the installation of one water tank with a minimum tank size of 10,000 gallons for Fire Department use only.
12. The water tanks shall be clearly identified for "Fire Department Use Only".
13. The water tanks shall be in compliance with Fire Department standards.
14. The water tank shall have a low-level water local alarm which shall be in compliance with all applicable codes and regulations. The low-level water local alarm can be battery operated.
15. The water tank shall have a Fire Department supply outlet of 2 ½ inches in diameter with National Standard threads. The supply outlet is to be located 14-24 inches above the finished grade and is required to be protected by approved barricades.
16. If the outlet is not provided directly off the tank, provide a 6-inch underground pipe to a 4-inch upright pipe with an outlet of 2 ½ inches with National Standard threads, which is required to be protected by barricades.
17. The proposed Battery Energy Storage System shall be incompliance with Chapter 12 and all other applicable

Reviewed by:

sections within the County of Los Angeles Fire Code.

18. All electrical disconnect locations shall be clearly identified and be in compliance with all applicable state and local codes.
19. The clearance of vegetation shall be in compliance with the brush clearance regulation as defined by the Fire Code or as directed by the Fire Official.
20. The vegetation shall be trimmed to a maximum height of 6 inches within the boundaries of the solar array and the Electrical transformer vaults or structures shall have all vegetation cleared to mineral soil for 50 feet.

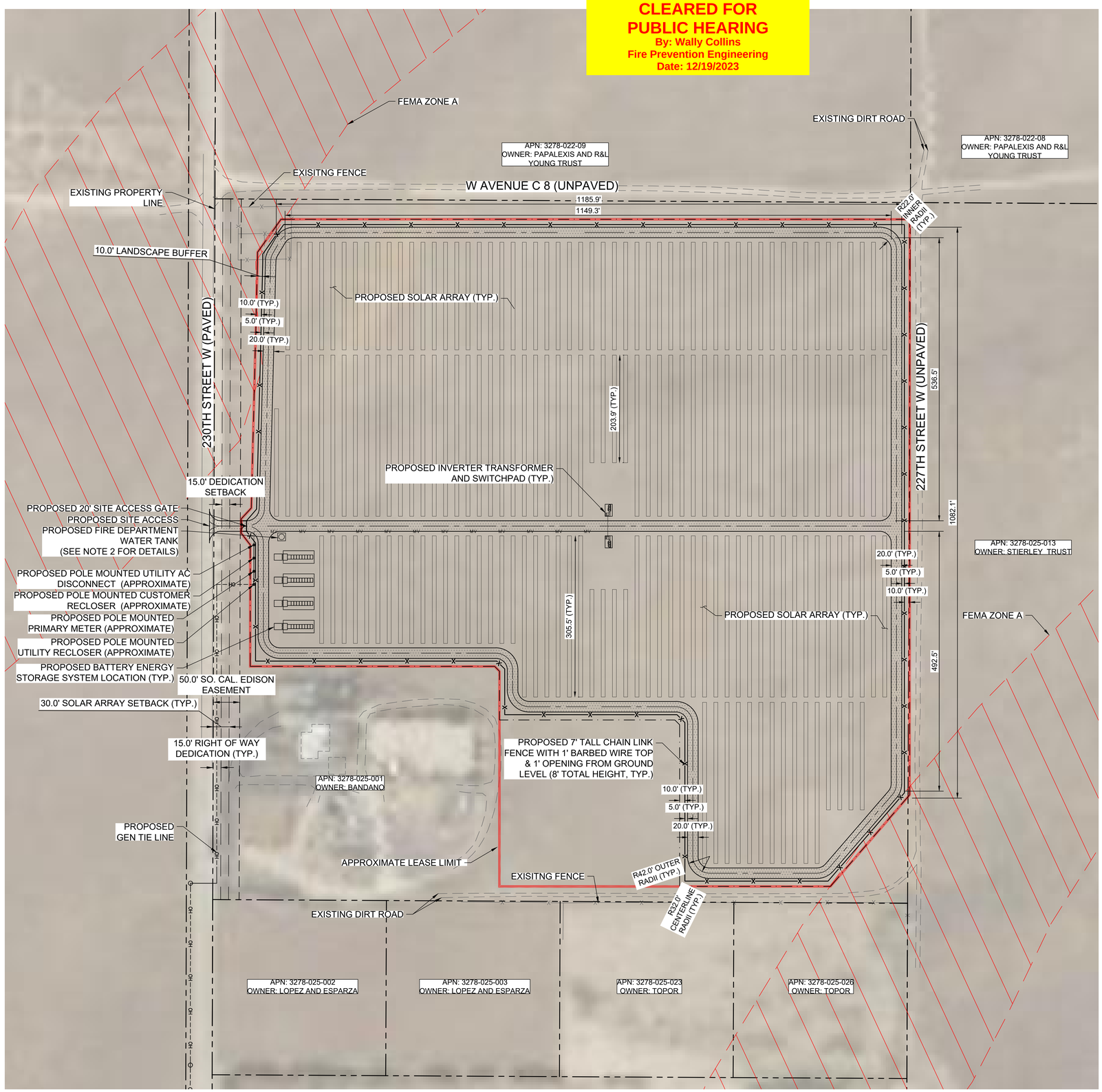
For any questions regarding the report, please contact Wally Collins at (323) 890-4243 or Wally.Collins@fire.lacounty.gov.

Reviewed by:



RPPL2023005137

COUNTY OF LOS ANGELES
FIRE DEPARTMENT
FIRE PREVENTION DIVISION
LAND DEVELOPMENT UNIT
CLEARED FOR PUBLIC HEARING
By: Wally Collins
Fire Prevention Engineering
Date: 12/19/2023



LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 7' TALL CHAIN LINK FENCE WITH 1' BARBED WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT

SITE INFORMATION

PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 065043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

SURVEY NOTE

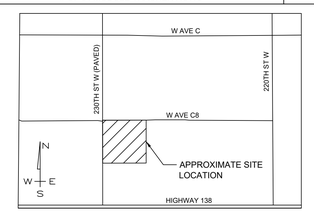
DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED MAY 31, 2022. ISSUING OFFICE: 7676 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108. ISSUING AGENT: FRANK GREEN. TITLE ORDER NUMBER: 2200330800. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS: A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. TRACKER HEIGHT MAXIMUM IS 10 FEET.
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	40+	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y

TRACKER QTY.	
DC SYSTEM SIZE	6,415.20 kW
# OF 81 MODULE TRACKER ROWS	90
# OF 54 MODULE TRACKER ROWS	85



VICINITY MAP
NTS

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT 099997002
DATE 11/2/2023
SCALE AS SHOWN
DESIGNED BY BC
DRAWN BY BC
CHECKED BY CY

CONCEPTUAL SITE PLAN

230TH STREET SOLAR

PREPARED FOR
RPCA SOLAR 12, LLC

LOS ANGELES COUNTY CALIFORNIA

SHEET NUMBER
C1.0

Plotted By: Crump, Brenna Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN November 02, 2023 07:47:05am K:\LDT_ENERGY\RPCA Ground-mount\099997002 RCPA_230th St Exhibit E\06_CAD_PlanSheets\CX.X - SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Parks Make Life Better!"
Norma E. García-González, Director Alina Bokde, Chief Deputy Director

December 19, 2023

TO: Soyeon Choi
Department of Regional Planning

FROM: Jui Ing Chien JIC
Planning and CEQA Section

SUBJECT: **UTILITY SCALE SOLAR FACILITY (RPPL2023005137)**
CONDITIONAL USE PERMIT
49560 230TH STREET W, LANCASTER, CA 93536

The proposed project has been reviewed for potential impacts on the facilities of the Department of Parks and Recreation (DPR). The project will not impact any DPR facilities, and we have no comments. Thank you for including this Department in the review of this document. If you have any questions, please contact me at jchien@parks.lacounty.gov or (626) 588-5317.

COUNTY OF LOS ANGELES
Public Health

BARBARA FERRER, Ph.D., M.P.H., M.Ed.
Director

MUNTU DAVIS, M.D., M.P.H.
County Health Officer

MEGAN McCLAIRE, M.S.P.H.
Chief Deputy Director

LIZA FRIAS, REHS
Director of Environmental Health

BRENDA LOPEZ, REHS
Assistant Director of Environmental Health

SCOTT ABBOTT, REHS, M.P.A.
Assistant Director of Environmental Health

5050 Commerce Drive
Baldwin Park, California 91706
TEL (626) 430-5374 • FAX (626) 813-3000

www.publichealth.lacounty.gov/eh/

BOARD OF SUPERVISORS

Hilda L. Solis
First District

Holly J. Mitchell
Second District

Lindsey P. Horvath
Third District

Janice Hahn
Fourth District

Kathryn Barger
Fifth District

May 15, 2024

TO: Samuel Dea
Supervising Regional Planner
Department of Regional Planning

Attention: Soyeon Choi

FROM: Charlene Contreras
Director, Community Protection Branch
Department of Public Health

SUBJECT: CONDITIONAL USE PERMIT (CUP) REQUEST
CASE: RPPL2023005137
APN: 3278-025-001

Thank you for the opportunity to review the application and project located at the subject property. This applicant requests to install 5 megawatts (MW) ground-mounted commercial solar and a 5 MW accessory battery energy storage system (BESS) facility located on approximately 29 acres of a 40-care parcel at the above location.

☒ Public Health conditions for this project have been met as of the date of this letter. Public Health recommends the clearance of the aforementioned project.

☐ Public Health requires that the conditions or information requested below are addressed prior to agency approval; therefore, the Department **DOES NOT** recommend clearance of this project until the following conditions are met:

1. Drinking Water Program: Potable Water

The project would be unmanned, and no employees would report to the project site daily. Project construction and operation would not utilize water facilities. The project would purchase water from a local purveyor. Water used for solar panel and inverter washing will be trucked in from an offsite source. A 10,000-gallon water tank would be installed for fire department use only.

For questions regarding drinking water, please contact Beverly Tway, Drinking Water Program at (626) 430-5420 or btway@ph.lacounty.gov.

2. Land Use Program: Wastewater

According to the Los Angeles County Sanitary Sewer Network-Consolidated Sewer Maintenance District, there are no sewer lines within 200 feet of the project.

The California Code of Regulations, Tittle 8, Section 8397.4 Health and Sanitation, subsection (d)(2)(A) and Table F-2, only when the employer demonstrate that it is not feasible to provide sewered toilets, or when there is a temporary increase in the number of employees for a short duration of time. “The employer shall abide by the requirement of the provision of portable toilets and proper handwashing facilities. Under this section, portable water, soap or waterless skin cleaning agents, and single-use hand towels must be supplied.”

Applicant must utilize a permitted Toilet Rental Agency Service in Los Angeles County during construction and/or maintenance activities.

For questions regarding wastewater, please contact Xiomara Santana, Land Use Program at (626) 430-5380 or xsantana@ph.lacounty.gov.

3. Community Protection Branch: Environmental Hygiene

Please Note: The following are general requirements for Noise and Air Quality recommendations for the proposed project.

The applicant shall abide by all applicable requirements contained in Title 12, Chapter 12.08 - Noise Control Ordinance of the County of Los Angeles (reference available at municode.com). The sections in Title 12 that apply to this project include but are not limited to 12.08.390 (Exterior Noise Standards), 12.08.440 (Construction Noise) and 12.08.530 (Residential air conditioning or refrigeration equipment).

3.1 Exterior Noise Ordinance:
12.08.390 Exterior Noise Standards

No person shall operate or cause to be operated, any source of sound at any location within the unincorporated county or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards in Table 1.

Exterior Noise Standards, dBA						
Area	Duration	Std # 1 = L50	Std # 2 = L25	Std # 3 = L8.3	Std # 4 = L1.7	Std # 5 = L0
		30min/hr	15min/hr	5 min/hr	1 min/hr	At no time
Residential	7 am – 10 pm	50	55	60	65	70
	10 pm – 7 am	45	50	55	60	65
Commercial	7 am – 10 pm	60	65	70	75	80
	10 pm – 7 am	55	60	65	70	75
Industrial	Anytime	70	75	80	85	90

Table 1. Std = Standard dB that may not exceed the cumulative period.

3.2 Construction Noise

Ordinance:

12.08.440 Construction Noise

Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited (See Table 2 and 3).

A. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 7:00 p.m.	75 dBA	80 dBA	85 dBA

Table 2. Std = Standard dB that may not exceed.

B. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 7:00 p.m.	60 dBA	65 dBA	70 dBA

Table 3. Std = Standard dB that may not exceed.

3.3 Community Noise

Ordinance:

12.08.530 Residential air conditioning or refrigeration equipment

Operating or permitting the operation of any air conditioning or refrigeration equipment in such a manner as to exceed any of the following sound levels is prohibited (See Table 4).

Measuring Location	Units Installed on or after January 1, 1980, dBA
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall.	55
Center of neighboring patio, 5 feet above level, no closer than 3 feet from any wall.	50
Outside the neighboring living area window nearest the equipment location, not more than 3 feet from the window opening, but at least 3 feet from any other surface.	50

Table 4. dBA levels not to be exceeded on the neighboring property.

Findings:

The subject site is zoned for residential use and is bordered by West Avenue C 8 to the north, 227th Street W to the east, undeveloped open space, and a residence to the south, and 230th Street W to the west. The immediate southern vacant land was zoned for irrigated farm. The rest of the surrounding lands were zoned for residential and commercial to the south and irrigated farm to the east and west.

Per the applicant, the project site

a) is owned by the onsite resident.
b) is relatively flat; therefore, no substantial grading, import, or export of fill would be required.
c) would consist of constructing solar modules, battery storage, underground electrical conductors, access roads, and fencing.
d) would install approximately 14,000 solar modules manufactured off-site and delivered by truck.
e) modules would be mounted on a steel racking system and anchored with steel piers 8 to 10 feet below ground.
f) battery storage would be comprised in four banks at the southwest corner of the solar panel array. Each bank would be the size of shipping container.
g) access would be provided via a new driveway constructed from 230th Street W. Access roads would encircle the whole array and bisect the site in a west-east orientation.
h) would be enclosed with a six-foot chain link fence topped with one-foot barbed wire.
i) construction to be completed in seven months with activities that include demolition; site preparation (vegetation clearing); grading; paving; system installation, testing and commissioning; and cleanup.

j) operation would be unmanned and operate year-round. No employees would report to the project site daily.
k) operations and maintenance activities, during project operations, include but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, battery storage system and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

On December 28, 2023, noise levels were measured using a sound level meter (Larson Davis Sound Advisor 831C) set to A-weighting (dBA) on 230 Street W shoulder approximately 50 feet north of 49560 230th St W, the project site owner single-family residence, to determine background noise levels. Measuring background noise assists in determining allowable construction or operational noise levels. If background noise exceeds some or all standards, then the background levels become the new standard.

As shown in Table 5 below, the exterior background noise level results exceeded the residential L1.7 and L0 as well as the commercial L0 noise standard. These exceedances were caused by cars/trucks driving on 230th St W. As a result, the L1.7 and L0 background noise level become the exterior noise standards (see highlighted noise level).

Based on the above findings and the noise TECHNICAL MEMORANDUM submitted by the applicant consultant, Kimley-Horn, the subject site construction and operation activities would not have significant noise impact.

Exterior Noise Standards, dBA											
Area Background	Duration	Std # 1 = L50		Std # 2 = L25		Std # 3 = L8.3		Std # 4 = L1.7		Std # 5 = L0	
		30min/hr	Result	15min/hr	Result	5 min/hr	Result	1 min/hr	Result	At no time	Result
Residential	1:47 p.m. – 2:47 p.m.	50	38.5	55	41.7	60	46.3	65	65.9	70	83.1
Commercial	1:47 p.m. – 2:47 p.m.	60	38.5	65	41.7	70	46.3	75	65.9	80	83.1

Table 5. Std = Standard dBA that may not exceed the cumulative period.

3.4 Recommendations

3.4.1 Exterior Noise

Operational noise from the subject site needs to be determined and mitigation measures applied as needed prior to permitting the construction.

Be advised that if the activities listed below or additional activities that may create a noise disturbance occur in the future, care must be exercised to refrain from or minimize

such a noise disturbance so as not to impact the nearest residential properties.

1. Vehicle and equipment start-up and idling.
2. Loading/unloading.
3. Alarms.
4. public address (PA) system.
5. solar panels and equipment washing and maintenance.

3.4.2 Construction Noise

Construction noise needs to be determined and addressed. Noise mitigation measures may need to be applied to reduce construction noise and to comply with Title 12, 12.08.440 – Construction Noise. Noise mitigation strategies may include but are not limited to:

1. All construction equipment shall be equipped with the manufacturers' recommended noise muffling devices, such as mufflers and engine covers. These devices shall be kept in good working condition throughout the construction process.
2. Installation of a temporary sound barrier at the property lines of the proposed project site to mitigate noise impacts on all surrounding properties.
3. All construction equipment shall be properly maintained and tuned to minimize noise emissions.
4. Stationary noise sources (e.g., generators and compressors) shall be located as far from residential receptor locations as is feasible.

3.4.3 Air Quality Recommendation

During grading or excavation activities if applicable, application of dust control measures to minimize fugitive dust is recommended. Fugitive dust

can result in worker and public exposure to fungal spores such as Coccidioides immitis, which can cause Coccidioidomycosis (Valley Fever). Adhere to applicable Air Quality Management District regulations.

For questions regarding above comments, please contact Yonas Taye of Public Health, Environmental Hygiene Program at (626) 430-5201 or ytaye@ph.lacounty.gov.

If you have any other questions or require additional information, please contact Veronica Aranda of Public Health, Planning & Land Use Liaison at (626) 430-5201 or varanda@ph.lacounty.gov.

CC:va
DPH_CLEARED_APN-3278-025-001_RPPL2023005137_05.15.2024.

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
1	**MM AQ-1: Minimize Exposure to Potential Valley Fever-Containing Dust.** Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan (VFMP) and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction: • An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever. • Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction. • Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.	A. Submit a Dust Control Plan to AVAQMD that addresses grading and ground disturbance, construction scheduling, soil stockpiles, water application, soil binding, monitoring, valley fever, and high wind. Provide the County with approved copy of the Dust Control Plan. B. Comply with Dust control Plan and measures while monitoring and keeping records of this mitigation measure. Present records to AVAQMD and the County upon request. C. Provide Valley Fever information and training on personal protective equipment to staff and onsite construction personnel, and	A. Prior to ground disturbance activities. Ground disturbance refers to any activities that may include clearing vegetation, grading, excavation, trenching, and drilling within the Project Site. B. During construction C&D. During construction	Permittee / Construction Manager	County of Los Angeles Department of Regional Planning (LACDRP) / AVAQMD

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	• Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators. • Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.	present records to AVAQMD and County upon request. D. Implement a Valley Fever Management Plan.			
2	**MM BIO-1: Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500-foot buffer (0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not be required during Operation & Maintenance activities.	A. Schedule vegetation removal outside of bird breeding season, if feasible B. Conduct a pre-construction nesting bird survey during the breeding season C. Retain a qualified biologist. D. Prepare report of nesting bird survey findings	A. Prior to vegetation removal, ground disturbance, construction, or demolition activities B, C, & D. Prior to the commencement of vegetation removal, ground disturbance, construction, demolition activities or site mobilization activities.	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.				
3	**MM BIO-2: Swainson's Hawk (SWHA).** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to	A. Conduct initial baseline monitoring and recording the event of Swainson's hawk nests and provide the log to the County upon request. B. Further monitoring and recording of the	A. Prior to ground disturbance and construction activities. B. Prior and during construction if active SWHA	Permittee	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. It construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.	SWHA nest shall continue as required by this mitigation measure. C. If SWHA nests are detected prior to or during construction, provide notes and records of nest monitoring upon request of the County.	nests are detected D. Prior and during construction		
4	**MM BIO-3: Worker Environmental Awareness Training**. A qualified biologist shall conduct a worker environmental awareness training (WEAT) program for all persons working on the Project prior to the onset of construction for construction, operation and maintenance, and decommissioning activities. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered shall be included in the training. Special-status species, including legal protection, penalties for violations, and Project specific protective measures shall also be discussed. Contact information for the qualified biologist and other useful wildlife-related contacts (e.g., CDFW, venomous snake humane relocation services, etc.) shall be included in the WEAT. Interpretation shall be provided for non- English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training shall be maintained at the worksite with the Project supervisor, and a handout containing this information shall be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective	A. Submit WEAT program to LACDRP upon request. B. Conduct an environmental education program for sensitive biological species that may be in the area C. Maintain copies of the training materials and handouts on-site.	A. Prior to the start of construction B & C. Prior to the start of construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	measures. The WEAT shall be sent to the County for review prior to implementation.				
5	**MM BIO-4: Trash Receptacles.** All trash and waste items generated by construction, operation and maintenance and decommissioning or crew activities shall be properly contained in a covered and locked trash receptacle and/or removed from the Project Site daily. All containers shall be wildlife-proof. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species.	Contain and remove trash and waste items generated by construction or crew activities	During construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP
6	**MM BIO-5: Common and Special-Status Wildlife Awareness.** All Project personnel shall visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on-site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during constructional phases of the Project (construction, O&M, and decommissioning), all excavated holes, ditches, or trenches greater than six (6) inches deep shall be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps shall be placed in excavations. After opening and before filling, such holes, ditches, and trenches shall be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) shall not contain monofilament netting. All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire	Visually check for animals in any materials and equipment stored on-site for one or more overnight periods; install security fencing per County Code standards	During construction activities, operation and maintenance , and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	shall be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.				
7	**MM BIO-6: Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist.. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.	A. Conduct burrowing owl surveys B. Stop work within listed buffers if burrowing owl individuals or sign is detected C. Report to County biologist of detection and to determine next steps	A. During survey season immediately prior to construction activities B & C. When burrowing owl individuals or sign are detected during construction or decommissioning.	Permittee/ Construction Manager	LACDRP, CDFW
8	**MM BIO-7: Desert Kit Fox.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be	A. Conduct desert kit fox surveys B. Prepare Desert Kit Fox Avoidance Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.		B. When occupied desert kit fox dens are detected during survey.		
9	**MM BIO-8: American Badger.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The	A. Conduct American badger surveys B. If determined that an active den cannot be avoided, prepare American Badger Eviction Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction B. Prior to construction	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).				
10	**MM BIO-9: Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities. If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented: • If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b). • Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or	A. Conduct protocol surveys B. Conduct nesting surveys if this species is detected foraging within 100 feet of the project site. C. Consult with CDFW for take authorization D. If floral resource will be removed or damaged, replace floral resource at a 1:1 ratio or as otherwise determined during any ITP application process. E. If any floral resource is found at the site, replant and manage the floral resources.	A, B & C. Prior to construction. C. Following completion of construction or as indicated by ITP. D. During operation and maintenance	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.				
11	**MM BIO-10: Vegetation and Revegetation.** To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.	A. Use rubber-tired vehicles, where feasible B. Provide County with seed mixes	A. During construction activities B. Prior to application of seed mixes	Permittee/ Construction Manager	LACDRP
12	**MM BIO-11: Panel Positioning.** To minimize "lake effect" related to adverse impacts to bird species, the panels shall be positioned overnight where they last tracked the sun or pre-positioned toward the east to capture sunrise (i.e., panels shall be in a close to vertical position) and provide documentation to the County upon request.	A. Position panels (overnight) in a close to vertical position and provide documentation to the County upon request.	During operation	Permittee/ Construction Manager	LACDRP
13	**MM CUL-1: Worker Environmental Awareness Program**. Prior to the start of ground disturbance, the Permittee shall hire a qualified archaeologist ("Project Archaeologist") to provide the construction crew with on-site training on the proper procedures to follow if cultural resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what such artifacts	A. Hire a qualified archaeologist to provide the WEAP for anticipated discovery of cultural resources B. Provide training and information to all individuals working on site	A & B. Prior to the start of ground disturbance activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	may look like when partially buried or wholly buried and then freshly exposed, a discussion of what prehistoric and historic-period archaeological deposits look like at the surface and when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and shall be provided to all individuals working on site.				
14	**MM CUL-2: Unanticipated Discovery of Cultural Resources.** In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).	A. Retain a Native American Monitor(s). See MM TCR-1 B. Contact Project Archaeologist should archaeological resources be discovered C. Notify Native American Monitor(s) if the resource is determined to be prehistoric D. Prepare a data recovery plan if archaeological resources are found and impacts cannot be avoided E. Submit documentation to the County and regional repository	A. Prior to construction B, C, D & E. During ground-disturbing activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
15	**MM CUL-3: Cultural Resources Monitoring.** The Project Archaeologist shall be onsite to monitor ground disturbing activities twice a week, or as otherwise determined by the lead agency in consultation with the consulting tribes referenced in MM TCR-1. Ground disturbing activities include clearing vegetation, grubbing, digging, pavement removal, grading, excavation, trenching, plowing, drilling, blasting, potholing/auguring, and stripping topsoil. The Project Archaeologist shall have the authority to increase or decrease the monitoring effort should the monitoring results indicate that a change is warranted. The Project Archaeologist shall consult with the Consulting Tribes (defined below) prior to increasing or decreasing the monitoring schedule. Monitoring requirements shall end once ground disturbing activities are complete.	A. Monitor ground disturbing activities twice a week B. Consult with Consulting Tribes to define monitoring schedule	A &B. During ground disturbing activities	Permittee/ Construction Manager	LACDRP
16	**MM CUL-4: Unanticipated Discovery of Paleontological Resources.** Prior to start of ground disturbance, the construction crew shall participate in on-site training on the proper procedures to follow if paleontological resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what paleontological resources may look like when partially buried or wholly buried and then freshly exposed, a discussion of what paleontological resources look like when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and should be provided to all individuals working on site. In the event that paleontological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and a qualified paleontologist who meets	A. Conduct a Worker Environmental Awareness Program for unanticipated discovery of paleontological resources B. Contact a qualified paleontologist who meets the Society of Vertebrate Paleontology guidelines C. If the find requires further evaluation and/or extraction, follow the fossil discovery protocols.	A. Prior to the start of ground disturbance activities B & C. During the ground-disturbing activities D. During ground disturbance activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	the Society of Vertebrate Paleontology guidelines shall be contacted immediately to evaluate the resource. If the find is large enough to warrant further evaluation and/or extraction, then the following fossil "discovery" protocol shall be followed: a) The paleontologist shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. b) The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study, or report. c) Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations. During ground disturbance activities, the Applicant shall submit a letter to the County for the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered.	D. Submit a letter to the County			
17	**MM CUL-5: Inadvertent Discovery of Human Remains.** If human remains or funerary objects are encountered during construction, all ground disturbance activities within 100 feet of the discovery shall be suspended and the construction manager shall immediately notify the County coroner pursuant to State Health and Safety Code §7050.5. This state code shall be enforced for the duration of the Project. If the human remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission (NAHC). The NAHC shall identify and immediately notify the Most Likely Descendant (MLD) of the deceased Native American. Within 48	A. Suspend all ground disturbance activities within 100 feet of a discovery if human remains or funerary objects are encountered. B. Notify County coroner C. Coroner to notify	A, B, and C. During construction activities	Permittee/ Construction Manager	LACDRP, MLD and/or Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	hours of being granted access to the site, the MLD shall complete the inspection of the site of the discovery and make recommendations to the Applicant/landowner for the treatment or disposition of the human remains and any associated funerary objects. All measures, as required by the County, shall be implemented under the supervision of the MLD and/or Tribal Monitor.	NAHC			
18	**MM TCR-1: Tribal Monitor.** Prior to the commencement of any ground disturbance activities, the Permittee shall retain a Tribal monitor(s) (Tribal Monitor) who is approved by the Fernandeno Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians) (the "Consulting Tribes") to provide tribal monitoring/consulting services alongside the Project Archaeologist in accordance with MM CUL-3. The Permittee shall submit a letter to the County of Los Angeles (County) to confirm the name and contact information of the Tribal Monitor(s) who is retained for the Project.	A. Retain Tribal Monitor(s) approved by FTBMI and YSMN B. Submit a letter to County to confirm name and contact information of the Tribal Monitor(s)	A & B. Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP, Tribal Monitors
19	**MM TCR-2: Tribal Cultural Resources Monitoring Plan.** Prior to the commencement of any ground disturbance activities, the Project Archaeologist, in consultation with the Consulting Tribes shall prepare and submit a Tribal Cultural Resources Monitoring and Treatment Plan (Monitoring and Treatment Plan) to the County for review. The Monitoring and Treatment Plan shall be approved by and the Consulting Tribes before those activities commence and the approved plan shall be submitted to the County. The Monitoring and Treatment Plan shall include methods for monitoring ground disturbance activities; procedures to follow when resources are discovered; protocol for identifying and evaluating tribal cultural resources; and shall incorporate measures to mitigate potential impacts to tribal cultural resources as provided in MM TCR-5, below.	A. Submit a Monitoring and Treatment Plan that is approved by the Consulting Tribes to the County for file record.	Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP
20	**MM TCR-3: Worker Environmental Awareness Program (WEAP) Training.** Prior to the commencement of any ground disturbance activities, all project construction managers and	A. Project Archaeologist and Tribal Monitor(s) to administer tribal	A. Prior to commencement of any ground	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	workers shall attend a tribal cultural resources awareness training. The Project Archaeologist and the Tribal Monitor shall administer the training to inform construction managers and workers about the types of resources that could be encountered; the procedures to follow if tribal cultural resources are discovered; and the potential penalties for failing to adhere to applicable laws and regulations. The procedures include work curtailment or redirection and immediate contact of the on-call archaeologist and, if appropriate, the FTBMI and SMBMI representative. Construction managers shall maintain a log to document all construction personnel who have completed the training. The log shall be provided to the County upon request within five business days. The training requirement should be stated on all construction plans. The Tribal representatives from the Consulting Tribes shall be allowed to attend and participate in the training. The WEAP required under this measure may be combined with the WEAP described in MM CUL-1.	cultural resources awareness training to all construction managers and workers. B. Log all construction personnel who have completed the training C. Provide log to County upon request within five business days	disturbance activities B&C. Prior to or during ground disturbance activities.		
21	**MM TCR-4: Tribal Monitoring.** Tribal monitor(s) shall be present onsite to monitor ground disturbing activities based on a schedule coordinated and agreed by the Consulting Tribes or established by the County. Tribal monitor(s) shall monitor ground disturbing activities when the Project Archaeologist is onsite in accordance with MM CUL-3. If the Project's scheduled activities require the Tribal Monitor to leave the Project Site for a period of time and return, confirmation shall be submitted to the Tribes by the Permittee, in writing, upon completion of each set of scheduled activities and five (5) days' notice (if possible) shall be submitted to the Tribes by the Permittee, in writing, prior to the start of each set of scheduled activities. The Project Archaeologist and Tribal Monitor shall complete a log documenting all ground disturbance activities monitored, the locations where those activities occurred, the types of soils involved, and any tribal cultural resources	A. Tribal monitor(s) to monitor ground disturbing activities when Project Archaeologist is onsite B. Confirmation of scheduled activities to the Tribes C. Complete log documenting ground disturbance activities, locations, types of soil, and resources encountered	During ground disturbing activities based on schedule coordinated and agreed by the Consulting Tribes	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	encountered. Monitoring shall end when ground disturbance activities are completed, or earlier if a Tribal Monitor has determined that the site has a low potential for impacting tribal cultural resources. Within 30 days after monitoring has ended, the Project Archaeologist and Tribal Monitor shall submit the logs to the County and the Permittee shall submit in writing to the Consulting Tribes that all scheduled activities are complete.	D. End monitoring when ground disturbance activities are completed E. Submit logs to the County and Consulting Tribes			
22	**MM TCR-5: Discovery of Tribal Cultural Resources.** If tribal cultural resources are encountered during construction, all ground disturbance activities within 100 feet of the find shall stop until the Tribal Monitor and the Project Archaeologist can evaluate the significance of the find and an area barrier shall be constructed. Construction activities may continue in other areas of the project site. The Project Archaeologist shall develop a research design including a plan to evaluate the resource for significance under CEQA criteria pursuant to Public Resources Code Section 21074. The archaeologist and the Consulting Tribes shall confer regarding the research design, evaluation efforts, and the resource's archaeological significance. If the discovery proves significant as determined by the Project Archaeologist and Consulting Tribes shall recommend appropriate measures subject to County's approval, to mitigate potential impacts to tribal cultural resources. Such measures may include but are not limited to resource avoidance, reburial, and preservation for educational purposes. Should it occur that avoidance, preservation in place, or on-site reburial are not an option for treatment, the Consulting Tribes and Project Archaeologist shall develop a curation agreement to be approved by the County and agreed between landowner and museum. The agreement may include legal and physical transfer of the collections and associated recordation, fees, and maintenance of the collection.	A. Stop ground disturbance activities within 100 feet of the find until the Tribal Monitor and Project Archaeologist can evaluate and construct a barrier B. Develop research design and plan to evaluate the resource C. Recommend appropriate measures to mitigate potential impacts to tribal cultural resources D. Develop curation agreement E. Prepare and submit a final monitoring report	A, B, C, D & E. During construction if tribal resources are encountered F. Within 90 days after monitoring has ended	Permittee/ Construction Manager	LACDRP Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	The Consulting Tribes shall coordinate with the Permittee to ensure that all measures approved by the County are implemented. Within 90 days after monitoring has ended, the Project Archaeologist shall prepare and submit a final monitoring report documenting all encountered tribal cultural resources, the significance of the resources, and the treatment of the resources to the tribes for review and comment. An approved final report shall be submitted to the California Native American Heritage Commission, local CHRIS Information Center, the County, and Consulting Tribes.	F. Submit final report to California Natie American Heritage Commission, local CHRIS Information Center, County, and Consulting Tribes			

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

REPORT TO THE REGIONAL PLANNING COMMISSION

DATE ISSUED:	August 7, 2025	
HEARING DATE:	August 20, 2025	AGENDA ITEM:
PROJECT NUMBER:	PRJ2023-002405-(5)	
PERMIT NUMBER(S):	Conditional Use Permit RPPL2023005137 Environmental Plan RPPL2023005138	
SUPERVISORIAL DISTRICT:	5	
PROJECT LOCATION:	49560 230th Street West, Lancaster	
OWNER:	Amilcar and Debra Badano Trust	
APPLICANT:	Renewable Properties, LLC	
PUBLIC MEETINGS HELD:	0 OF 0	
INCLUSIONARY ZONING ORDINANCE (IZO):	The Project is not subject to the IZO because it does not propose housing.	
CASE PLANNER:	Soyeon Choi, Senior Regional Planner schoi@planning.lacounty.gov	

RECOMMENDATION

The following recommendation is made prior to the public hearing and is subject to change based upon testimony and/or documentary evidence presented at the public hearing:

LA County Planning staff ("Staff") recommends **APPROVAL** of Project Number PRJ2023-002405-(5), Conditional Use Permit Number ("CUP") RPPL2023005137, based on the Findings (Exhibit C – Findings) contained within this report and subject to the Draft Conditions of Approval (Exhibit D – Conditions of Approval).

Staff recommends the following motions:

I MOVE THAT THE REGIONAL PLANNING COMMISSION CLOSE THE PUBLIC HEARING AND ADOPT THE MITIGATED NEGATIVE DECLARATION ALONG WITH THE REQUIRED FINDINGS OF FACT AND ADOPT THE MITIGATION MONITORING AND REPORTING PROGRAM FOR THE PROJECT PURSUANT TO STATE AND LOCAL CEQA GUIDELINES.

ENTITLEMENT:

I MOVE THAT THE REGIONAL PLANNING COMMISSION APPROVE CONDITIONAL USE PERMIT NUMBER RPPL2023005137 SUBJECT TO THE ATTACHED FINDINGS AND CONDITIONS.

PROJECT DESCRIPTION

A. Entitlement(s) Requested

- Conditional Use Permit ("CUP") for the development, operation, and maintenance of a ground-mounted utility-scale photovoltaic solar energy facility ("solar facility") in the A-2-2 (Heavy Agricultural – Two Acres Minimum Required Lot Area) Zone pursuant to County Code Sections 22.16.030.C (Land Use Regulations for Zones A-1, A-2, O-S, R-R, and W) and 22.140.510 (Renewable Energy).

B. Project

Project Description

The applicant, Renewable Properties, LLC, requests a CUP to authorize the development, operation, and maintenance of a 4.99-megawatt (MW) ground-mounted utility-scale solar facility on approximately 31 acres of a 40-acre site, located southeast of the intersection of 230th Street West and West Avenue C-8 in the unincorporated community of Lancaster, also known as Assessor's Parcel Number ("APN") 3278025001 ("Project Site"). The solar facility is comprised of photovoltaic panels, mounted on single-axis tracking systems on steel support systems up to 25 feet in height arranged in a north-south orientation. Project related accessory equipment such as an on-site battery energy storage system, fencing, and utility connections will be developed on the Project Site as well. A 4.99-MW battery energy storage system ("BESS") will be located within the southwestern corner of the Project Site. Solar electricity generated by the project would connect to the proposed generation-tie ("gen-tie") line that extends south along 230th Street West for approximately 675 feet to connect to the electrical grid system through an existing electric distribution substation owned by Southern California Edison ("SCE"). The subject parcel is currently developed with a single-family residence ("SFR"), which is to remain, in an approximately nine-acre area at the southwestern corner of the Project Site.

The solar facility will be interconnected to an existing electrical distribution substation. A 675-foot-long gen-tie line will be underground. Wildlife-friendly perimeter fences up to seven (7) feet in height topped with one-foot-tall barbed wire, for an overall fence height of eight feet, will surround the Project Site. A 10-foot-deep vegetative landscaped buffer will be installed along 230th Street West as well as along the fences adjacent to the existing SFR at the southwestern corner of the Project Site.

Proposed on-site Project-related infrastructure improvements include 20-foot-wide access roads along the perimeter and interior solar field, one (1) 10,000-gallon water tank for fire-fighting purposes near the access gate on 230th Street West, retention and infiltration basins for rainwater in the central area across the solar facility from east to west,

an appurtenant electrical collection equipment area, and a BESS at the southwest corner near 230th Street West. The BESS will also contain operational battery storage components consisting of fully enclosed containers that are approximately eight (8) feet wide, 10 feet tall, and 20 feet long, each of which is to be connected to a transformer with similar or smaller size. No permanent outdoor lighting is proposed for operation. The only outdoor lighting that may be required is temporary lighting during construction, particularly during the winter season when daylight is no longer sufficient earlier in the day.

Project Construction

Project construction will take approximately seven (7) months to complete and require approximately 15 to 20 workers during non-peak activities and approximately 50 workers during the peak construction period. Approximately 3,600 cubic yards of grading (1,800 cubic yards of cut and 1,800 cubic yards of fill to be balanced on-site) will be required to develop the access roads, retention and infiltration basins, and water tank pads and other appurtenant equipment, including the battery storage components. The solar field will require minor grading as the support posts of the panel arrays will be driven directly into the soil with a minimal amount of ground disturbance proposed. Vegetation taller than or expected to exceed two (2) feet in height would be removed while other vegetation may remain. Construction practices such as the application of water and soil stabilizers, covering of loads, avoiding track out onto public streets, and the minimization of non-essential grading during high wind conditions will be incorporated. A final dust control plan will be submitted and approved by Antelope Valley Air Quality Management District ("AVAQMD") prior to ground disturbance.

The nearest off-site sensitive receptor is a SFR located approximately 670 feet to the south of the Project Site. The existing SFR within the Project Site will remain. Construction noise will be minimized by limiting the majority of work during weekdays and daytime hours in compliance with County Code Title 12 (Environmental Protection), which limits construction hours to 7:00 a.m. to 7:00 p.m. except Sundays and holidays, and coordinating the noisiest construction equipment use in terms of the placement and use time.

Water Use

The County Code requires that solar facility operators purchase recycled water if such water is available within one (1) mile of the Project Site and at fair market value. There is no such source within one (1) mile of the Project Site. The primary source of water for the proposed project would be purchased from a local water wholesaler, Antelope Valley-East Kern Water Agency that is either surface or groundwater. Approximately 13 acre-feet ("AF") of water will be required for project-related construction and 0.2 AF annually for the solar facility's operation.

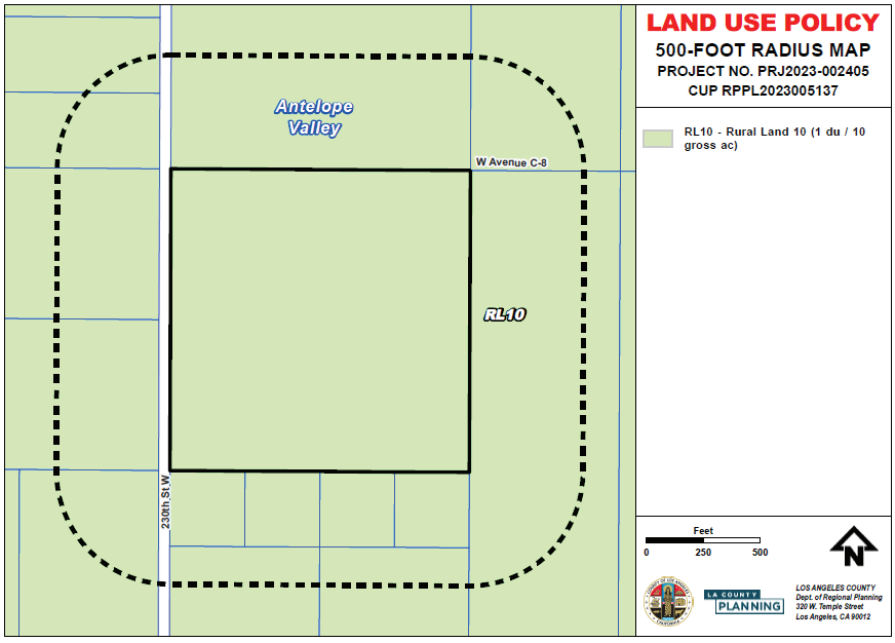
Dust Control

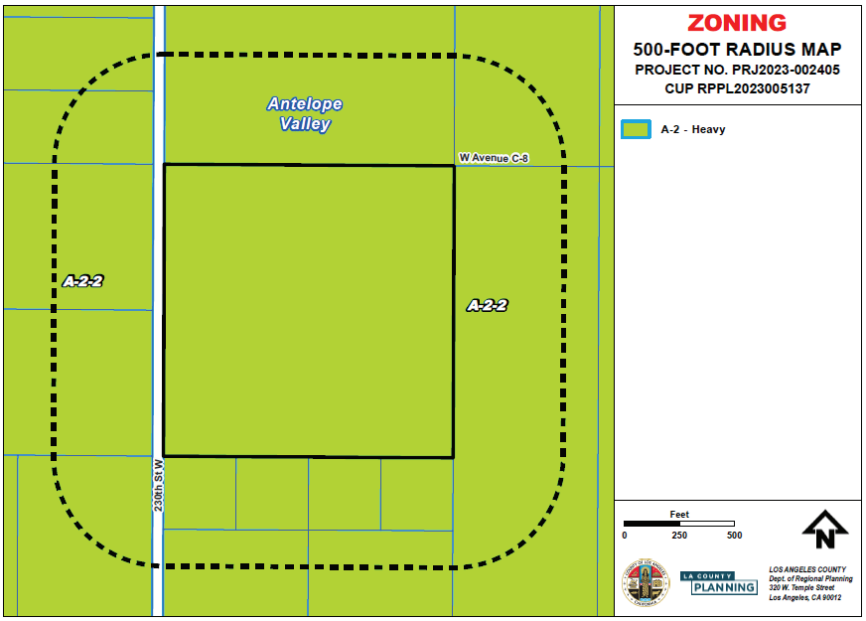
The Project includes features that minimize ground disturbance and dust generation during the construction phase. Examples of such measures include workers training; maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads; the use of surface binders to prevent airborne dust; rescheduling grading activities when wind speeds exceed 25 miles per hour; and controlling exposed soils with plastic covering, mulch, or erosion control fabrics. The Project will employ an on-site health and safety manager, who will also serve as the 24-hour contact person, to ensure compliance with these measures. A final dust control plan will be submitted and approved by AVAQMD prior to any ground disturbance.

SUBJECT PROPERTY AND SURROUNDINGS

The following chart provides property data within a 500-foot radius:

LOCATION	ANTELOPE VALLEY AREA PLAN LAND USE POLICY	ZONING	EXISTING USES
SUBJECT PROPERTY	RL10 (Rural Land 10 – One Dwelling Unit per 10 Acres)	A-2-2	Agricultural, SFR
NORTH	RL10	A-2-2	Vacant
EAST	RL10	A-2-2	Vacant
SOUTH	RL10	A-2-2	SFRs, vacant
WEST	RL10	A-2-2	Vacant





PROPERTY HISTORY

A. Zoning History

ORDINANCE NO.	ZONING	DATE OF ADOPTION
7086	M-3 (Unrestricted Manufacturing)	January 15, 1957
7397	A-1-2 (Light Agricultural – Two Acres Minimum Required Lot Area)	September 23, 1958
20150021Z	A-2-2	June 16, 2015

B. Previous Cases

CASE NO.	REQUEST	DATE OF ACTION
CC940271	Unconditional Certificate of Compliance for Project Site	September 1, 1994
RPPL2022014121	Pre-Application Counseling for the construction of a solar facility.	March 14, 2023

C. Violations

CASE NO.	VIOLATION	CLOSED/OPEN
N/A	N/A	N/A

ANALYSIS

A. Land Use Compatibility

The 40-acre Project Site is compatible with the neighborhood, which is mostly undeveloped, vacant lands and SFRs. Two parcels with SFRs are located to the south within 500 feet of the Project Site. The request will not conflict with the surrounding vacant land or existing residences on large-sized lots since the Project will be a relatively low-intensity use once construction is completed and perimeter fencing along with landscaping screening will be provided. A 10-foot-wide landscape buffer will be provided to minimize visual intrusion for the residence at the southwest corner of the Project Site and the other residences to the south (along 230th Street West). The operation of the proposed solar facility does not require on-site employees and would not generate heavy traffic. Solar arrays will be set back from the project boundaries by 30 feet and the perimeter fence will be set back by 15 feet from the road as required by the County Code. Landscaped screening will be comprised of regularly spaced drought-tolerant vegetation. These Project features will ensure that the Project is compatible with the surrounding area.

The Project Site will be accessed from 230th Street West to the west during construction for most of the construction traffic and during operation. 230th Street West is a 50-foot-wide Secondary Highway as mapped in the County Master Plan of Highways. The Project Site is also near existing major electrical infrastructure such as distribution substation and transmission lines, and as such, will be able to efficiently transmit its power to the electrical utility grid.

B. Neighborhood Impact (Need/Convenience Assessment)

The Project will support local and State efforts in reducing greenhouse gas emissions. The Project will accomplish this by providing approximately 15,000 MWs of carbon-free energy per year, and generate approximately 98.7 metric tons of carbon dioxide per year, which is amortized gas emissions for the entire project over a 30-year period. It is below the Antelope Valley Air Quality Management District (AVAQMD) thresholds of 100,000 tons of carbon dioxide per year and 548,000 pounds of carbon dioxide per day. The Project will result in offsetting the equivalent of approximately 5,750 metric tons of carbon dioxide annually.

C. Design Compatibility

The Project is designed to be compatible with the surrounding area. The Project will adhere to the applicable renewable energy utility-scale solar facility design standards pertaining to setbacks of fencing and solar arrays, landscape screening along perimeter fencing, height of solar arrays, and small animal-permeable fencing. Gen-tie lines will be 675 feet long and undergrounded along 230th Street West from the Project Site to an existing grid system. Only temporary outdoor lighting may be required during the construction, particularly during the winter season. No permanent outdoor lighting is proposed for operation. Furthermore, regular openings at the base of the perimeter fence

will allow for the passage of wildlife into and through the Project Site. Additionally, the decommissioning plan will include a site restoration plan to reestablish site conditions that existed prior to the facility's construction after it ceases operation.

GENERAL PLAN/COMMUNITY PLAN CONSISTENCY

The Project is consistent with applicable goals and policies of the General Plan and Antelope Valley Area Plan. Consistency findings can be found in the attached Findings (Exhibit C – Findings).

ZONING ORDINANCE CONSISTENCY

The Project complies with all applicable zoning requirements. Consistency findings can be found in the attached Findings (Exhibit C – Findings).

BURDEN OF PROOF

The applicant is required to substantiate all facts identified by Sections 22.158.050 (Conditional Use Permit, Findings and Decision) and 22.140.510.E.5 (Renewable Energy, Utility-Scale Solar Energy Facility, Additional Findings) of the County Code. The Burden of Proof with applicant's responses is attached (Exhibit E – Applicant's Burden of Proof). Staff is of the opinion that the applicant has met the burden of proof.

ENVIRONMENTAL ANALYSIS

Staff recommends that a Mitigated Negative Declaration is the appropriate environmental documentation under the California Environmental Quality Act ("CEQA") and the County's environmental reporting guidelines. The Initial Study concluded that there are certain potentially significant environmental impacts associated with the project that can be reduced to less than significant with the implementation of the proposed mitigation measures. The draft Mitigation Monitoring Program is included as an attachment (Exhibit F – Environmental Determination) to this report.

Project impacts to the following areas were determined to be less than significant and required no further environmental review as described in the Initial Study.

- Aesthetics
- Agriculture/Forestry
- Energy
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service
- Wildfire

The areas of environmental impact found to be less than significant with project mitigation incorporated include the following:

- Air Quality
- Biological Resources
- Cultural Resources
- Tribal Cultural Resources

After implementation of the required mitigation measures, as would be enforced by the Project's Mitigation Monitoring and Reporting Program ("MMRP"), the Project would not result in significant impacts to the environment. A summary of the areas analyzed that have less than significant impacts to the environment after implementation of mitigation measures, is included below:

Air Quality
Impacts are mitigated by implementation of the Dust Control Plans for both Project construction and operation, which would reduce fugitive dust and minimize exposure to potential Valley Fever-containing dust on and off site. This includes such measures for maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas as approved by AVAQMD.

Biological Resources
Potential impacts on nesting and special-status birds and specific animals such as burrowing owl, desert kit fox, and American badger, will be mitigated by a series of mitigation measures. The mitigation measures include a worker training program, a survey prior to the onset of construction, avoidance by specific buffers, regular monitoring and observation, and/or eviction of animals as approved by California Department of Fish and Wildlife.

Cultural Resources
Mitigation measures provide methods of identifying any culturally significant artifacts during construction of the Project and notifying the appropriate authorities, including tribal monitoring, when cultural resources are encountered during construction

Tribal Cultural Resources
Mitigation measures include retaining a tribal monitor(s), preparation and submission of Tribal Cultural Resources Monitoring and Treatment Plan, worker training program, monitoring of ground disturbing activities, and evaluation of and appropriate treatment of any cultural resources encountered during construction.

COMMENTS RECEIVED

A. County Department Comments and Recommendations

1. The County Department of Public Works, in a letter dated December 23, 2024, recommended that the Project proceed to public hearing with required conditions of approval.
2. The County Fire Department, in a letter dated December 19, 2023, recommended that the Project proceed to public hearing with required conditions of approval.

3. The County Department of Public Health, in a letter dated May 15, 2024, recommended that the Project proceed to public hearing with required conditions of approval.
4. The County Department of Parks and Recreation, in a letter dated December 19, 2023, recommended that the Project proceed to public hearing.
5. The County Sheriff's Department Air Bureau, in a letter dated May 27, 2025, stated that the Project will not impact its operation.

B. Public Comments

Staff has received four (4) comment letters before and during the CEQA public review period as described below:

1. A former Fairmont Town Council member Larry Dunworth, in a letter dated March 31, 2025, stated that the Town Council was disbanded and had not had a meeting since February 2020.
2. Nathan Bello, in a letter dated May 9, 2025, suggested that mitigation land is provided specific wildlife species, such as Crotch's bumble bee.
3. Elizabeth Topor, in a letter dated May 29 and 30, 2025, expressed concerns about the Project due to noise, aesthetic, dust, potential fire hazard, traffic, lighting and reflection, potential impacts on family and animal life, and wildlife.
4. Sun Yoo, in a letter dated July 17, 2025, expressed support for the Project.

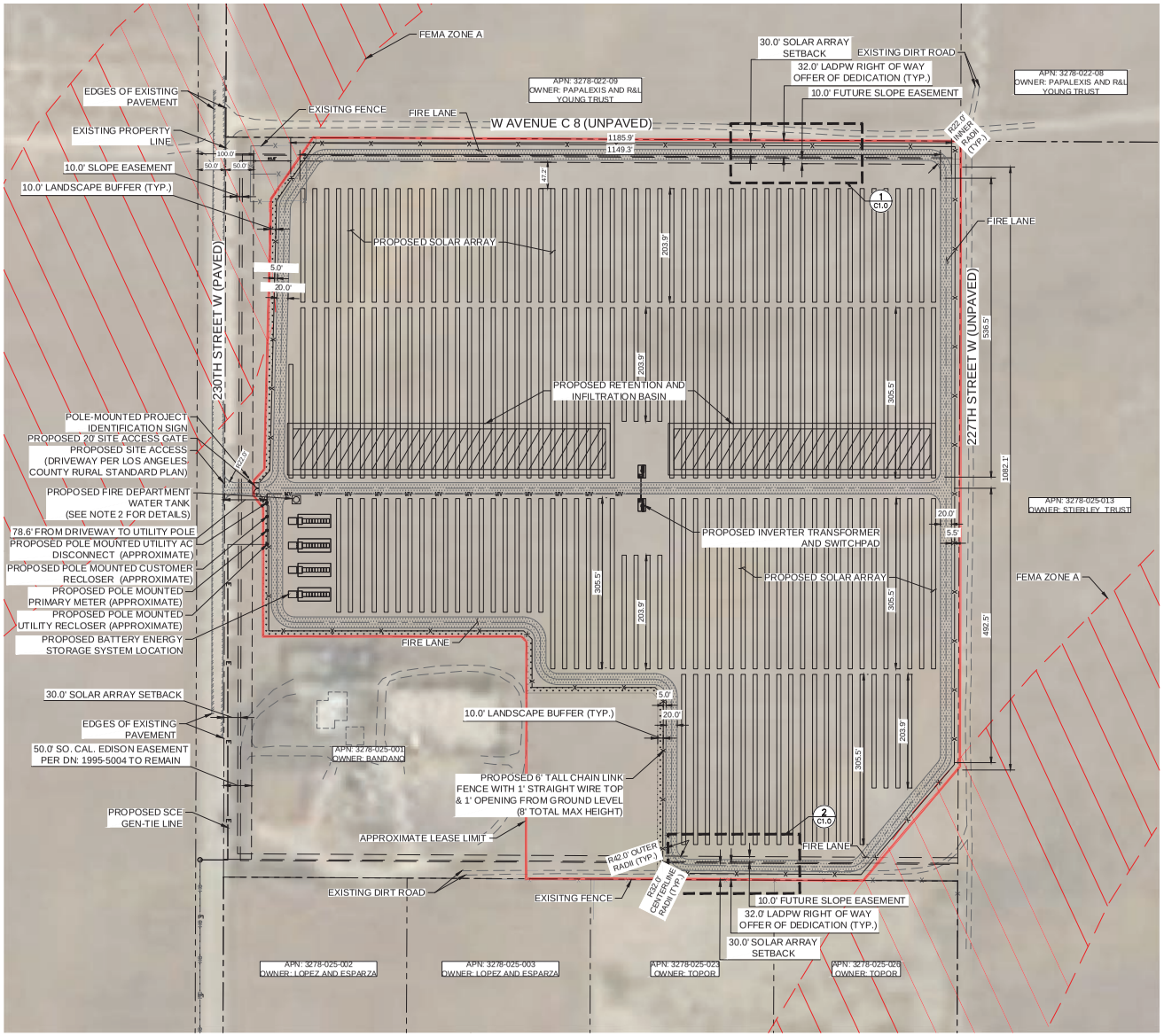
Report Reviewed By: Samuel Dea, Supervising Regional Planner

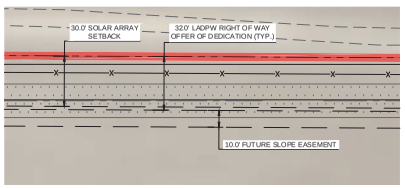
Report Approved By: Susie Tae, AICP, Assistant Administrator

LIST OF ATTACHED EXHIBITS	
EXHIBIT A	Plans
EXHIBIT B	Project Summary Sheet
EXHIBIT C	Draft Findings
EXHIBIT D	Draft Conditions of Approval
EXHIBIT E	Applicant's Burden of Proof

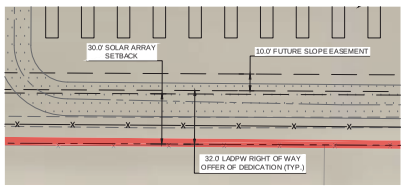
EXHIBIT F	Environmental Determination (IS-MND/MMRP and Final IS-MND/Response to Comments)
EXHIBIT G	Informational Maps
EXHIBIT H	Photos
EXHIBIT I	Photosimulation
EXHIBIT J	Agency Correspondence
EXHIBIT K	Public Correspondence

EXHIBIT A SITE PLAN





NORTH ENLARGED PROPERTY BOUNDARY 1
SCALE: 1"=30'



SOUTH ENLARGED PROPERTY BOUNDARY 2
SCALE: 1"=30'

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	30	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y

TRACKER QTY.	
DC SYSTEM SIZE	6,633.90 kW
# OF 81 MODULE TRACKER ROWS	95
# OF 54 MODULE TRACKER ROWS	85

LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF PAVEMENT PER PLAN
- PROPOSED PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 6' TALL CHAIN LINK FENCE WITH 1' STRAIGHT WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED SCE GEN-TIE LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD/ FIRE LANE
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT
- MATCHLINE
- PROPOSED RETENTION AND INFILTRATION BASIN

SITE INFORMATION

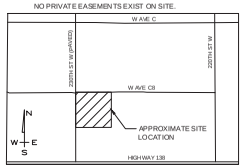
PROJECT ADDRESS:	49950 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 06503 PANEL 0100F, EFFECTIVE DATE 09/26/2008

SURVEY NOTE

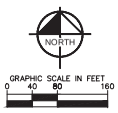
DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED MAY 31, 2022, ISSUING OFFICE: 7676 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108, ISSUING AGENT: FRANK GREEN, TITLE ORDER NUMBER: 22000330800. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS: A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.
BENCHMARK:	ELEVATIONS SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BENCHMARK. CONTROL POINT #5000 SET 60D NAIL CONTROL POINT. ELEVATION = 2623.09 NAVD 88

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. PROPOSED TRACKER HEIGHT IS 10 FEET, BUT WILL NOT EXCEED LA COUNTY'S HEIGHT MAXIMUM (25 FEET).
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.
9. DRAINAGE IMPROVEMENTS ARE NOT TO BE MAINTAINED BY THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT.
10. IN ADDITION TO THE REQUIREMENTS OF CHAPTER 22.80 (RURAL OUTDOOR LIGHTING DISTRICT), ANY OUTDOOR LIGHTING REQUIRED FOR SAFETY AND SECURITY PURPOSES SHALL BE SHIELDED AND DIRECTED DOWNWARD TO AVOID LIGHT TRESPASS AND SHALL INCLUDE:
    - 10.1. MOTION SENSORS FOR ENTRY-LIGHTING TO THE ON SITE EQUIPMENT, STRUCTURES, AND BUILDINGS; AND
    - 10.2. LIGHT-SENSOR OR MOTION-SENSOR LIGHTING FOR THE MAIN FACILITY ACCESS GATE, OPERATIONS AND MAINTENANCE BUILDING DOORWAYS, AND ANY PARKING AREAS OF FACILITIES WITH OPERATION AND MAINTENANCE BUILDINGS.
11. NO PRIVATE EASEMENTS EXIST ON SITE.



VICINITY MAP
NTS



No.	REVISIONS	DATE	BY

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1490
WWW.KIMLEY-HORN.COM

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT	069997002
DATE	4/9/2025
SCALE	AS SHOWN
DESIGNED BY	BC
DRAWN BY	BC
CHECKED BY	CY

CONCEPTUAL SITE PLAN

230TH STREET SOLAR

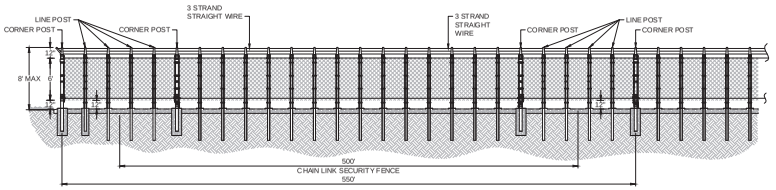
PREPARED FOR
RPCA SOLAR 12, LLC

LOS ANGELES COUNTY CALIFORNIA

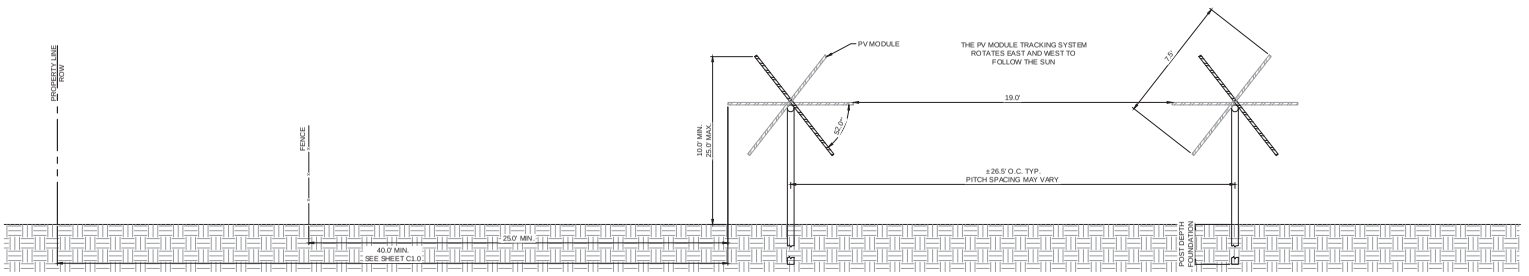
SHEET NUMBER
C1.0

Plotted By: Crump, Brenna Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN April 09, 2025 03:02:39pm K:\LDT_Energy\RPCA Ground-mount\069997002_RCPA_230th St Exhibit E\06_CAD_PlanSheets\CVX — SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. and be without liability to Kimley-Horn and Associates, Inc.

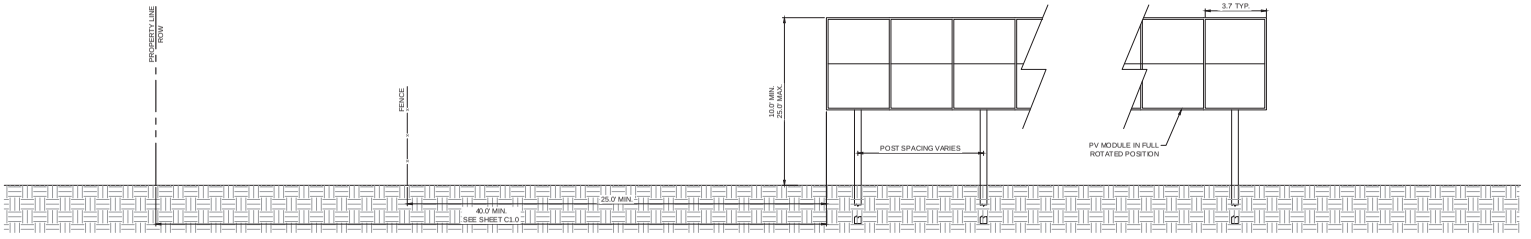
NOTES:
1. THE PERIMETER FENCING SURROUNDING THE PROJECT SITE WILL BE RAISED ABOVE GROUND LEVEL TO ALLOW FOR THE PASSAGE OF WILDLIFE TO THE LESSER OF:
   1.1. ONE FOOT ABOVE GRADE; OR
   1.2. TO 18 INCHES ABOVE GRADE.
2. RAISED OPENINGS SHALL BE INSTALLED WITH THE BOTTOM TENSION WIRE AND FENCE CHAIN LINK FABRIC BE RAISED 12" ABOVE GRADE.
3. THE POSTS AT THE START AND END OF THE WILDLIFE FENCE ARE INTERMEDIATE PULL POSTS, WHICH ARE A TYPE OF TERMINAL POST, AND SHALL BE SIZED TO MATCH ALL OTHER TERMINAL POSTS (EQUAL TO CORNER AND END POSTS.)
4. 6' TALL CHAIN LINK FENCE WITH 1' STRAIGHT WIRE TOP AND 1' WILDLIFE PASS ON BOTTOM (6.0' TOTAL MAX HEIGHT). SLATTED FENCE REQUIRED 600' EAST AND 895' NORTH OF SOUTHWEST FENCE CORNER



TYPICAL FENCING DETAIL
N.T.S
1



TYPICAL RACK SECTIONL
SCALE: 1" = 3'
2



TYPICAL RACK ELEVATIONS
SCALE: 1" = 3'
3

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1040
WWW.KIMLEY-HORN.COM

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

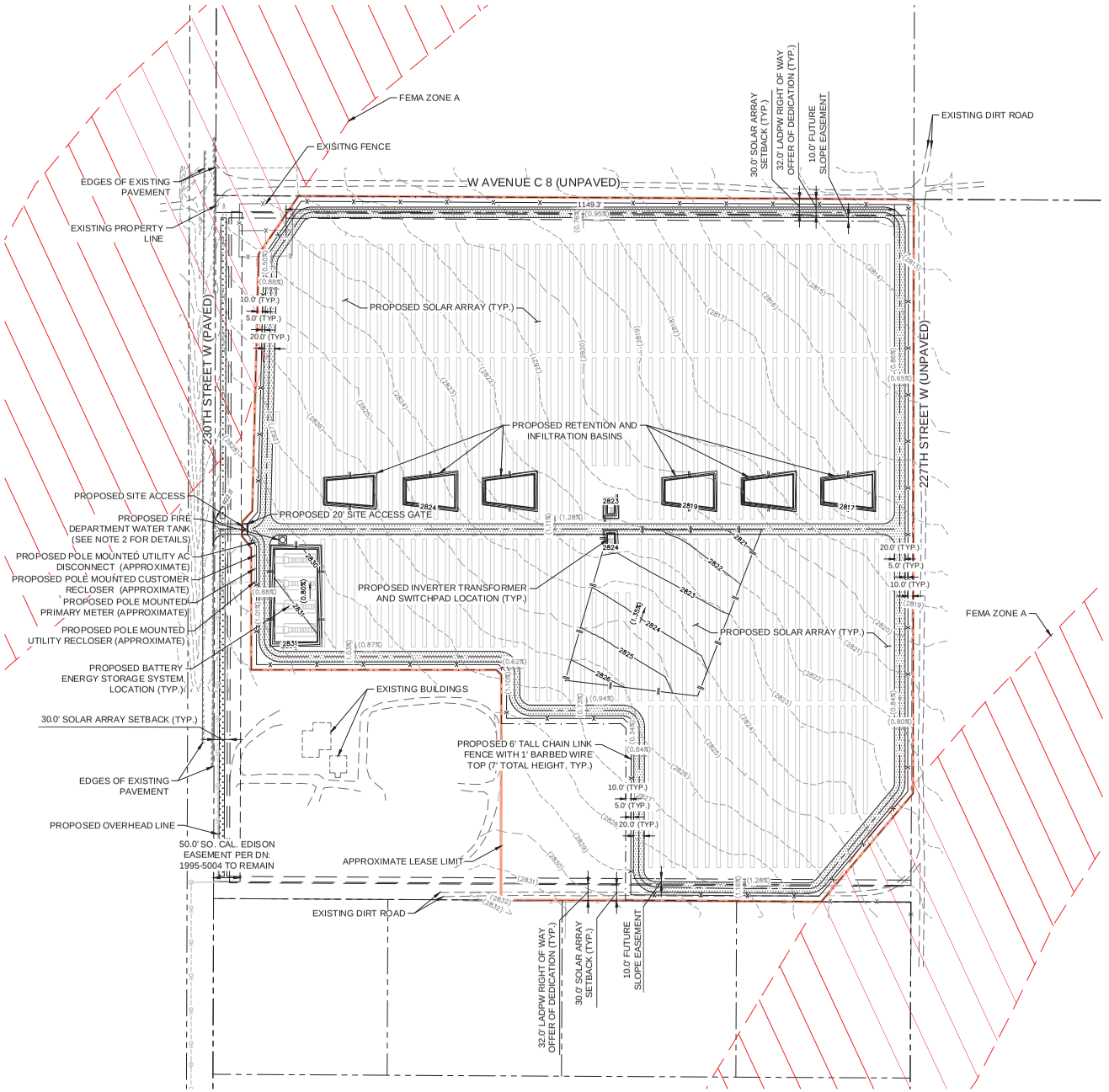
KHA PROJECT 069000002
DATE 4/9/2025
SCALE AS SHOWN
DESIGNED BY BC
DRAWN BY BC
CHECKED BY CY

DETAILS

230TH STREET SOLAR
PREPARED FOR
RPCA SOLAR 12, LLC
LOS ANGELES COUNTY CALIFORNIA

SHEET NUMBER
C1.1

Plotted By:Crumb, Brenna Sheet Set:Kha Layout:FENCING DETAILS April 09, 2025 03:03:45pm K:\LDT_Energy\RPCA Ground-mount\069997002_RCPA_230th St Exhibit EV08_CADD_PlanSheets\08.X - GRADING DETAILS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 6' TALL CHAIN LINK FENCE WITH 1' BARBED WIRE TOP (7' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV CABLE
- LANDSCAPE BUFFER
- EASEMENT
- LIMITS OF GRADING
- FEMA FLOOD ZONE A
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING SLOPE
- PROPOSED SLOPE
- PROPOSED RETENTION AND INFILTRATION BASIN

SITE INFORMATION

PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 065043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

EARTHWORK VOLUMES

CUT 1,800 (CY) FILL 1,800 (CY) NET 0 (CY)
OVER EXCAVATION/ ALLUVIAL REMOVAL & COMPACTION 0 (CY)
EXPORT 0 (CY) , EXPORT LOCATION N/A

NOTE: THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THE CONTRACTOR IS NOT AUTHORIZED TO USE THE ESTIMATES HEREIN FOR BIDDING AND CONSTRUCTION PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE QUANTITIES ARE APPROXIMATE, IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S) AS FINISHED GROUND, FINISHED SURFACE, AND FINISHED FLOOR ELEVATIONS.

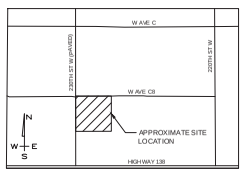
UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE GRADING QUANTITIES HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, SUBSIDENCE, OVER-EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, ACCESS ROAD SECTIONS, STORMWATER QUAUITY MEDIA SECTIONS, UTILITY PIPES OR MV CABLES, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING OR EQUIPMENT SLAB THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC.

GENERAL NOTES

1. REFER TO CONCEPTUAL SITE PLAN ON SHEET 1.0 FOR MORE INFORMATION.
2. ALL ELECTRICAL EQUIPMENT TO BE ELEVATED 12" ABOVE 100 YEAR FLOOD DEPTH.
3. MAINTENANCE RESPONSIBILITIES TO BE PERFORMED BY THE FACILITY OWNER/OPERATOR AS NECESSARY.
4. PER EMAIL RECEIVED FROM LACPW ON 6/12/2024, NO PV TO BE BUILT WITHIN OFFER OF DEDICATION. ONLY ROAD, LANDSCAPING, AND FENCE ALLOWED WITHIN THIS AREA.

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	30	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	20	N

TRACKER QTY.	
DC SYSTEM SIZE	34,248,420 kW
# OF 81 MODULE TRACKER ROWS	95
# OF 54 MODULE TRACKER ROWS	85



VICINITY MAP
NTS

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1490
WWW.KIMLEY-HORN.COM

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn and Associates, Inc.

KHA PROJECT	069997002
DATE	7/16/2024
SCALE	AS SHOWN
DESIGNED BY	BC
DRAWN BY	BC
CHECKED BY	CY

CONCEPTUAL GRADING PLAN

230TH STREET SOLAR

PREPARED FOR
RPCA SOLAR 12, LLC

LOS ANGELES COUNTY CALIFORNIA

SHEET NUMBER
C2.0

Plotted By: Crump, Brenna Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN July 16, 2024 01:34:20pm K:\LDT_ENERGY\RPCA Ground-mount\069997002_RCPA_230th St Exhibit E\06_CAD_PlanSheets\C2.0 — GRADING PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. and be without liability to Kimley-Horn and Associates, Inc.

LA COUNTY PLANNING

PROJECT NUMBER
PRJ2023-002405-(5)

HEARING DATE
August 20, 2025

REQUESTED ENTITLEMENTS
Conditional Use Permit No. RPPL2023005137
Environmental Assessment No. RPPL2023005138

PROJECT SUMMARY

OWNER / APPLICANT
Amilcar and Debra Badano Trust / Renewable Properties LLC

MAP/EXHIBIT DATE
April 9, 2025

PROJECT OVERVIEW

The applicant requests a conditional use permit to authorize the construction, operation, and maintenance of a 4.99-megawatt (MW) ground-mounted utility-scale solar energy facility and accessory battery energy storage system with a 4.99 MW capacity on approximately 31 acres of a 40-acre site in the A-2-2 (Heavy Agricultural – Two Acre Minimum Required Lot Area) Zone. Proposed grading for the Project will total 3,600 cubic yards (1,800 cubic yards of cut and 1,800 cubic yards of fill) to be balanced on site.

The solar panels will be mounted on tracking systems with a pile-driven foundation design. The facility's power output will be transmitted to the electrical grid via underground gen-tie to an existing electrical distribution substation owned by Southern California Edison along 230th Street West. An overall height of eight (8)-foot-tall wildlife-permeable fence will surround the Project perimeter. A 10-foot-wide landscaped buffer will be provided along 230th Street West and the fences adjacent to the existing single-family residence at the southwestern corner. Estimated water use is approximately 13 acre-feet for construction and 0.2 acre-feet annually for post-construction operation.

LOCATION
49560 230th Street West, Unincorporated Lancaster

ACCESS
230th Street West

ASSESSORS PARCEL NUMBER(S)
3278025001

SITE AREA
40 Acres

GENERAL PLAN / LOCAL PLAN
Antelope Valley Area Plan ("Area Plan")

ZONED DISTRICT
Antelope Valley West

PLANNING AREA
Antelope Valley

LAND USE DESIGNATION
RL10 (Rural Land 10 - One Dwelling Unit per 10 Acres)

ZONE
A-2-2

PROPOSED UNITS
0

MAX DENSITY/UNITS
N/A

COMMUNITY STANDARDS DISTRICT
N/A

ENVIRONMENTAL DETERMINATION (CEQA)

Mitigated Negative Declaration with mitigation measures identified for the following areas: (1) Air Quality, (2) Biological Resources, (3) Cultural Resources, and (4) Tribal Cultural Resources.

KEY ISSUES

- Consistency with the Los Angeles County General Plan and Area Plan
- Satisfaction of the following portions of Title 22 of the Los Angeles County Code:
  - Section 22.158.050 (Conditional Use Permit Findings and Decision Requirements)
  - 22.16.030.C (Land Use Regulations for A-2 Zone)
  - 22.140.510 (Renewable Energy)
  - 22.80.050 (Rural Outdoor Lighting District)

CASE PLANNER: Soyeon Choi

PHONE NUMBER: (213) 893 - 7021

E-MAIL ADDRESS: schoi@planning.lacounty.gov

LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

DRAFT FINDINGS OF THE REGIONAL PLANNING COMMISSION AND ORDER
PROJECT NO. PRJ2023-002405-(5)
CONDITIONAL USE PERMIT NO. RPPL2023005137
ENVIRONMENTAL PLAN NO. RPPL2023005138

RECITALS

1. **HEARING DATE(S).** The Los Angeles County ("County") Regional Planning Commission ("Commission") conducted a duly-noticed public hearing in the matter of Conditional Use Permit No. RPPL2023005137 ("CUP") on August 20, 2025.

2. **HEARING PROCEEDINGS.** *Reserved.*

3. **ENTITLEMENT(S) REQUESTED.** The permittee, Renewable Properties, LLC, ("Permittee"), requests the CUP to authorize the development, operation, and maintenance of a ground-mounted utility-scale photovoltaic solar energy facility including an accessory battery energy storage system and appurtenant facilities and equipment ("Project") on a property located southeast of the intersection of 230th Street West and West Avenue C-8 in the unincorporated community of Lancaster in the A-2-2 (Heavy Agricultural – Two Acres Minimum Required Lot Area) zone pursuant to Los Angeles County Code ("County Code") Section 22.16.030.C (Land Use Regulations for Zones A-1, A-2, O-S, R-R, and W) and 22.140.510 (Renewable Energy).

4. **LOCATION.** The Project is located at 49560 230th Street West, also known as Assessor's Parcel Number ("APN") 3278025001, within the Antelope Valley West Zoned District and Antelope Valley Planning Area.

5. **LAND USE DESIGNATION.** The Project Site is located within the RL10 (Rural Land 10 – One Dwelling Unit per 10 Acres) land use category of the Antelope Valley Area Plan ("Area Plan") Land Use Policy Map, a component of the General Plan.

6. **ZONING.** The Project Site is located in the Antelope Valley West Zoned District] and is currently zoned A-2-2. Pursuant to County Code Section 22.16.030.C (Land Use Regulations for Zones A-1, A-2,...), a CUP is required for ground-mounted utility-scale solar energy facilities.

7. **SURROUNDING LAND USES AND ZONING**

LOCATION	ANTELOPE VALLEY AREA PLAN LAND USE POLICY	ZONING	EXISTING USES
NORTH	RL10	A-2-2	Vacant
EAST	RL10	A-2-2	Vacant

SOUTH	RL10	A-2-2	Single family residences ("SFR"s), vacant
WEST	RL10	A-2-2	Vacant

8. **PROJECT AND SITE PLAN DESCRIPTION.**

A. Existing Site Conditions
The Project Site is 40 net acres in size and consists of one legal lot. The Project Site is rectangular in shape with gentle-sloping topography and is developed with a SFR at the southwest corner of the lot within an approximately nine-acre area.

B. Site Access
The Project Site is accessible via 230th Street West to the west. Primary and the only access to the Project Site will be via an entrance/exit on 230th Street West. 230th Street West is a 50-foot-wide Secondary Highway as mapped in the County Master Plan of Highways.

C. Site Plan
The Project will consist of a 4.99-megawatt ("MW") ground-mounted utility-scale solar facility ("solar facility") occupying approximately 31 acres of a 40-acre site. The solar facility will include photovoltaic ("PV") panels mounted on single-axis tracking systems supported by steel structures, with a maximum height of up to 25 feet. The arrays will be arranged in a north-south orientation. In addition to the solar arrays, the Project will also include an on-site accessory battery energy storage system ("BESS"), fencing, and utility connections. The accessory 4.99-MW BESS will be located within the southwestern corner of the Project Site. Solar electricity generated by the project will interconnect with an existing electrical distribution substation owned and operate by Southern California Edison ("SCE") through a proposed generation-tie ("gen-tie") line. The gen-tie line will be underground and extend approximately 675 feet to the south along 230th Street West to the existing grid system.

Wildlife-friendly perimeter fences up to seven (7) feet in height topped with one foot of barbed wire, for an overall fence height of eight (8) feet, will enclose the solar facility. The fence design will incorporate 12-inch openings along the base to provide small-animal permeability. A 10-foot-wide vegetative landscape buffer will be installed along 230th Street West and along the southwestern boundary of the solar facility where the solar facility adjoins an existing SFR on the Project Site to remain.

Additional on-site improvements include 20-foot-wide access roads along the perimeter and interior internal access road system, one (1) 10,000-gallon water tank for fire protection near the access gate on 230th Street West, retention and infiltration basins for rainwater in the central area across the solar facility from east to west, an appurtenant electrical collection equipment area in the central area, and BESS at the southwest corner near 230th Street West. The BESS will consist of fully enclosed containers approximately eight (8) feet wide, 10 feet tall, and 20 feet

long, each of which is to be connected to a transformer with similar or smaller size. The only outdoor lighting that may be required is temporary lighting during construction, particularly during the winter season when daylight is no longer sufficient earlier in the day. No permanent outdoor lighting is proposed for operation.

Project Construction

Project construction is anticipated to last approximately seven (7) months, requiring a workforce of 15 to 20 personnel during non-peak periods and up to 50 during peak construction. Site grading will involve approximately 3,600 cubic yards of balanced earthwork (1,800 cubic yards of cut and 1,800 cubic yards of fill) for access roads, retention and infiltration basins, water tank pads and other appurtenant equipment. Minimal grading is proposed within the solar field as panel support posts will be directly driven into the soil. Vegetation taller than two (2) feet will be removed, with lower-growth vegetation retained where feasible. Best management practices such as water application, soil stabilizers, load covering, and limiting grading during high wind conditions will be implemented. A final dust control plan will be submitted and approved by Antelope Valley Air Quality Management District ("AVAQMD") prior to any ground disturbance.

The nearest off-site sensitive receptor is a residential use located approximately 670 feet south of the Project boundary. The existing SFR on the Project Site will remain. Construction noise will occur primarily during weekday daytime hours in accordance with County Code Title 12 (Environmental Protection), which limits construction hours to 7:00 a.m. to 7:00 p.m. except Sundays and holidays, and the use of noise equipment will be scheduled and sited to minimize impacts.

Water Use

The County Code requires that solar facility operators purchase recycled water if such water is available within one (1) mile of the Project Site and at fair market value. As no such source is available, water will be sourced from a local water wholesaler, Antelope Valley-East Kern Water Agency ("AVEKWA"). Approximately 13 acre-feet ("AF") of water will be required for project-related construction and 0.2 AF annually for the facility's operation.

Dust Control

The Project will implement robust dust control measures to minimize airborne particulate emissions during construction. These include workers training, maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads, the use of surface binders to prevent airborne dust, rescheduling grading activities when wind speeds exceed 25 miles per hour, and controlling exposed soils with plastic covering, mulch, or erosion control fabrics. The final dust control plan will be submitted and approved by AVAQMD prior to any ground disturbance.

9. **CEQA DETERMINATION.**
Prior to the Commission's public hearing on the Project, an Initial Study was prepared for the Project in compliance with the CEQA (Public Resources Code section 21000,

et seq.), the State CEQA Guidelines, and the Environmental Document Reporting Procedures and Guidelines for the County. Based on the Initial Study, County Regional Planning ("LA County Planning") staff determined that a Mitigated Negative Declaration ("MND") was the appropriate environmental document for the Project. Air quality impacts, including concerns related to fugitive dust and Valley Fever, will be addressed through Dust Control Plans approved by AVAQMD. Biological resource impacts will be mitigated through measures such as species-specific surveys, avoidance buffers, monitoring, and coordination with California Department of Fish and Wildlife as needed. Cultural and tribal cultural resources will be protected through worker training, tribal monitoring, and treatment protocols outlined in a Tribal Cultural Resources Monitoring and Treatment Plan, ensuring appropriate response if resources are encountered during construction. The mitigation measures necessary to ensure the Project will not have a significant effect on the environment are contained in the Mitigation Monitoring and Reporting Program ("MMRP") prepared for the Project.

10. **COMMUNITY OUTREACH.** The Project Site is located within the area identified as part of the Fairmont Town Council area. A former Fairmont Town Council ("Town Council") member Larry Dunworth, in a letter dated March 31, 2025, stated that the Town Council was disbanded and had not had a meeting since February 2020.

11. **PUBLIC COMMENTS.**
    A. Nathan Bello, in a letter dated May 9, 2025, suggested that mitigation land is provided specific wildlife species, such as Crotch's bumble bee.
    B. Elizabeth Topor, in a letter dated May 29 and 30, 2025, expressed concerns about the Project due to noise, aesthetic, dust, potential fire hazard, traffic, lighting and reflection, potential impacts on family and animal life, and wildlife.
    C. Sun Yoo, in a letter dated July 17, 2025, expressed support for the Project.

12. **AGENCY RECOMMENDATIONS.**

    A. County Department of Public Works ("Public Works"): In a letter dated December 23, 2024, recommended that the Project proceed to public hearing with required conditions of approval

    B. County Fire Department ("Fire"): In a letter dated December 19, 2023, recommended that the Project proceed to public hearing with required conditions of approval

    C. County Department of Public Health: In a letter dated May 15, 2024, recommended that the Project proceed to public hearing with required conditions of approval

    D. County Department of Parks and Recreation: In a letter dated December 19, 2023, recommended that the Project proceed to public hearing.

    E. County Sheriff's Department ("LASD") Air Bureau: In a letter dated May 27, 2025, stated that the Project will not impact its operation.

13. **LEGAL NOTIFICATION.** Pursuant to Section 22.222.120 (Public Hearing Procedure) of the County Code, the community was properly notified of the public hearing by mail, and newspaper [Antelope Valley Press], and property posting. Additionally, the Project was noticed and case materials were available on LA County Planning's website. On July 10, 2025, a total of 19 Notices of Public Hearing were mailed to all property owners as identified on the County Assessor's record within a 1,000-foot radius from the Project Site, as well as 16 notices to those on the courtesy mailing list for the Antelope Valley West Zoned District and to any additional interested parties.

GENERAL PLAN CONSISTENCY FINDINGS

14. **LAND USE POLICY.** The Commission finds that the Project is consistent with the goals and policies of the General Plan and Area Plan because the RL10 land use designation is intended for SFRs, equestrian or animal-keeping uses, agricultural uses, and other uses where appropriate. Specific allowable uses are determined by the underlying zoning. The Project is appropriate at the subject location as it is comparable in terms of impact to the aforementioned uses and is otherwise compatible with the surrounding area.

    The Area Plan further states that, "[u]tility-scale renewable energy production facilities may be allowed in Rural Land use designations without a Plan Amendment. However, applications for such facilities may require discretionary approval shall be subject to the CEQA and the County's environmental review and public hearing procedures. Applications for such facilities must be carefully considered and must be consistent with the relevant Goals and Policies of the Area Plan, especially Goal COS [Conservation and Open Space] 10 and related policies, Goal COS 13 and related policies, and Goal COS 14 and related policies" (LU-13). The Project requires discretionary approval and has been reviewed under the CEQA through the preparation of an MND in accordance with CEQA and County environmental reporting guidelines.

    The proposed solar facility is consistent with the types of land uses envisioned for the RL10 designation. It is a low-intensity use that is compatible with the existing single-family residential use on the site and is not expected to generate substantial traffic, noise, or other environmental impacts to the SFR and the area. Additionally, the Project includes a decommissioning and restoration plan that will restore the site to pre-development conditions following the end of the solar facility's operational life. As part of this plan, the site will be seeded and fertilized with native vegetation as needed to return the site to its pre-project state as close as practical to original or initially agreed-upon condition.

15. **GOALS AND POLICIES.** The Commission finds that the Project is consistent with the following goals and policies of the General Plan:

    Land Use Element Goal LU 6: Protected rural communities characterized by living in a non-urban or agricultural environment at low densities without typical urban services.

- *Policy LU 6.1: Protect rural communities from the encroachment of incompatible development that conflict with existing land use patterns and standards.*
- *Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.*
- *Policy LU 6.3: Encourage low density and low intensity development in rural areas that is compatible with rural community character, preserves open space, and conserves agricultural land.*

Land Use Element Goal LU 7: Compatible land uses that complement neighborhood character and the natural environment.

- *Policy LU 7.1: Reduce and mitigate the impacts of incompatible land uses, where feasible, using buffers and other design techniques.*

The Project is appropriate for rural communities as it is a passive, low-intensity use that aligns with existing land use patterns and applicable standards. The surrounding area is characterized primarily by vacant land and SFRs on large lots. The Project will not result in permanent road closures, physical division of the community, or increased demand for public services. The Project is designed to minimize potential impacts through the incorporation of a 30-foot property setback, perimeter landscaping with drought-tolerant native vegetation, and wildlife-friendly fencing. The solar panel arrays will be installed using a low-impact method that preserves underlying vegetation, while grading will be limited to areas required for perimeter roads, retention basins, and other essential equipment. As the solar facility does not involve residential or commercial development, its overall intensity remains low. At the end of its operational life, the site will be decommissioned and restored to its pre-construction condition pursuant to a County-approved decommissioning plan, which ensures removal of above-ground structures, soil restoration, and revegetation, all of which will further support the Project's compatibility with the surrounding rural landscape.

- **Conservation and Natural Resources Element** *Policy C/NR 12.1: Encourage the production and use of renewable energy resources.*

The Project will produce renewable energy with PV solar arrays for distribution into the electrical grid. As such, the Project will help meet local and State mandates for carbon-free energy while keeping land use impacts to a minimum. The Project will produce approximately 15,000 MW-hours of electricity annually and help offset approximately 5,750 metric tons of carbon dioxide annually. An accessory BESS will store excess solar energy during high generation and help create a more consistent energy supply.

As a renewable energy utility-scale solar facility, the Project also helps meet the goals and objectives of the County's Community Climate Action Plan ("CCAP"), a component of the General Plan, which was adopted in 2015 and in effect at the time of the CUP application for the Project. The purpose of the CCAP is to help implement the County's goal of reducing greenhouse gas ("GHG") emissions to 80 percent below

2000 levels by 2050 as part of the County's commitment to the U.S. Cool Counties Climate Stabilization Declaration.

In 2010 within the unincorporated areas, transportation emissions from vehicles are the second largest source of emissions, or 42 percent of total GHG emissions. One strategy to reduce these specific GHG emissions is to encourage the greater use of electric vehicles ("EVs"). As such, the CCAP encourages a County-wide installation of EV chargers to accommodate the anticipated growth of EVs in California and the nation. A large shift to EVs, however, would likely result in a substantial increase in demand for electrical power. Therefore, to truly contribute to a reduction in GHG emissions, the electricity used to charge EVs must come from carbon-free energy sources such as solar.

While the CCAP provides implementation strategies to reduce GHG emissions in multiple areas of development and construction within the unincorporated areas, California State Bill 100 signed in 2018 sets a target of 60 percent of renewable electricity by 2030 and 100 percent renewable electricity by 2045. As a utility-scale solar energy facility that will connect to the existing grid, the Project will help meet both local and state demand for renewable energy.

16. **GOALS AND POLICIES**. The Commission finds that the following goals and policies of the Area Plan are also applicable to the proposed project:

Conservation and Open Space Element Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.

- *Policy No. COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed.*

  The solar panels proposed for the Project are primarily composed of approximately 76 percent tempered glass, 10 percent plastic polymer, and less than 0.1 percent heavy metals, such as silver. These materials are stable and not readily susceptible to spills or accidental releases. Any used or spent solar panels determined to be hazardous waste are subject to strict regulation under applicable hazardous waste laws. Routine cleaning of the panels will require only water, without the use of toxic chemicals, and the resulting runoff will infiltrate into the ground. Spent oil from transformers or other electrical equipment will be properly collected and transported to a licensed recycling facility. The BESS will utilize lithium-ion batteries, which are classified as miscellaneous hazardous materials. As an added safeguard, the conditions of approval require the Permittee to participate in the photovoltaic ("PV") panel manufacturer's collection and recycling program—or another approved recycling program—to ensure proper disposal of decommissioned PV panels and other project components.

- *Policy COS 10.2: Ensure that all individual renewable energy systems and all utility-scale renewable energy production facilities do not interfere with commercial and military flight operations or communication facilities. Consult with Edwards Air Force Base and U.S. Air Force Plant 42 on all proposed renewable energy projects that require discretionary approval.*

  Staff has consulted with the U.S. Air Force and Edwards Air Force Base. No comments have been received from them. As the Project Site is located more than 44 miles away from Edwards Air Force Base and 35 miles from U.S. Air Force Plant 42, it is not likely to generate any impacts to their operations or facilities.

Conservation and Open Space Element Goal COS 13: Utility-scale energy production facilities for offsite use that reduce consumption of non-renewable resources while minimizing potential impacts on natural resources and existing communities.

- *Policy COS 13.1: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.*

  The Project will be developed on a single-family residential lot where the SFR development occupies approximately nine acres in the southwestern corner of the subject parcel. The Project Site is surrounded by mostly vacant land and some single-family residences on large lots. The visual impacts will be reduced by the required fencing and landscaping buffer. The drought-tolerant vegetation species approved by a staff biologist, will be irrigated as needed for establishment and maintenance in order to minimize water demand. The BESS will be located approximately 130 feet from the nearest SFR, at which the noise levels measured are approximately 44 dBA and not exceeding the County daytime or nighttime noise standards of 50 dBA and 45 dBA, respectively. The project also incorporates wildlife-permeable fencing design and underground gen-tie lines onto the existing grid system that avoids impacts on existing biological resources. Mitigation measures and conditions pertaining to noise, dust control, aesthetics, and biological resources, will aid in reducing project impacts.

- *Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.*

  The Project will be required by the conditions of approval to develop and submit a decommissioning plan that includes a site restoration plan, prior to obtaining any building permits for construction. This decommissioning and restoration plan is required to include removal of all above-ground equipment and electrical lines,

restoration of any disturbed soil and re-vegetation of the site to its pre-construction condition, restoration or reclamation of project roads to their pre-construction condition, documentation of the pre-construction condition of the Project Site, and details of the performance and financial assurance guarantees. The plan will be subject to the County's review and approval.

- *Policy COS 13.4: Promote the use of recycled water in utility-scale renewable energy production facilities to limit impacts on the available fresh water supply.*

  The County Code requires that solar facility operators purchase recycled water if such water is available within one mile of the Project Site and at fair market value. Since there is no such source within one mile of the Project Site, the primary source of water for the proposed project would be sourced from a local water wholesaler, AVEKWA. The proposed water usage is minimal as it will be used for dust suppression during construction and cleaning of solar panels during normal operation. Approximately 13 AF of water will be required during an approximately seven (7)-month construction period for site preparation and dust control, and 0.2 AF of water will be required annually for the solar facility's operation. All required water will be trucked to the Project Site.

- *Policy COS 13.5: Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure.*

  The Project Site is a 40-acre parcel that is currently developed with an SFR at approximately nine-acre area at the southwestern corner. The Project Site is not in a Significant Ecological Area ("SEA"). There are some biotic communities identified as being impacted by the Project, including Swainson's hawk, desert kit fox, American badger, crotch's bumble bee, and other special status birds. Mitigation measures for biological resources are proposed to reduce impacts to less than significant levels, such as avoiding burrowing owls within a 50-meter to 500-meter buffer depending on the season during construction or decommissioning as feasible.

- *Policy COS 13.6: Ensure that all utility-scale renewable energy production facilities, such as solar facilities, do not create land use conflicts with adjacent agricultural lands or existing residential areas in the vicinity. Require buffering and appropriate development standards to minimize potential conflicts.*

  The Project is in an area that is mostly vacant with sporadic development of SFRs. The Project Site is currently developed with a SFR at the southwest corner. Within a 1,000-foot radius from the Project Site, there are only two (2) existing SFRs to the south, not counting the SFR on the Project Site which will remain. The Project will be designed to minimize any conflicts with adjacent land uses by providing a 10-foot-wide landscape buffer on 230th Street West as well as the boundaries abutting

the SFR on site. Perimeter fencing up to eight (8) feet in height, including barbed wire on top, will be installed 30 feet from the site boundaries to provide additional buffer and screening.

- *Policy COS 13.7: Limit the aesthetic impacts of renewable energy production facilities to preserve rural character.*

  The Project will contain design features to reduce its aesthetic impacts, including installing perimeter landscaping that consists of native and drought-tolerant vegetation. The landscaping will be irrigated regularly until established and maintained during the life of the Project with monthly monitoring. The height of the solar panels support structures will be limited to a maximum of 25 feet in height at maximum tilt to minimize visual impacts.

Goal COS 14: Energy infrastructure that is sensitive to the scenic qualities of the Antelope Valley and minimizes potential environmental impacts.

- *Policy 14.1: Require that new transmission lines be placed underground whenever physically feasible.*

  The Project's gen-tie lines of 675 feet in length will be placed underground along 230th Street West, to connect to an existing electrical grid system in compliance with all applicable requirements from Public Works.

- ***Economic Development Element*** *Policy ED (Economic Development) 1.11: Encourage the development of renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.*

  The subject solar facility is located in an area that is mostly vacant with sporadic residential development, away from town centers or commercial districts. The solar facility will be developed with all applicable renewable energy facility development standards as well as conditions and mitigation measures to ensure that the impacts to nearby uses and residents are minimized, including the undergrounding of gen-tie lines as discussed above. Specifically, mitigation measures will aid in minimizing and reducing impacts including aesthetics, dust, and noise.

- *Policy ED 1.13: Ensure early discussions with Edwards Air Force Base and U.S. Air Force Plant 42 regarding new industries, such as renewable energy production facilities, to limit potential impacts on mission capabilities.*

  Staff has consulted with both Edwards Air Force Base and U.S. Air Force Plant 42, and no comments have been provided. As the Project Site is more than 35 miles away from either facility, it is not anticipated to generate potential impacts.

ZONING CODE CONSISTENCY FINDINGS

17. **PERMITTED USE IN ZONE.** The Commission finds that the Project is consistent with the A-2 zoning classification as utility-scale ground-mounted solar facility is permitted in such zone with a CUP pursuant to County Code Section 22.16.030.C (Land Use Regulations for Zones A-1, A-2, ...).

18. **REQUIRED YARDS AND LANDSCAPED BUFFER.** The Commission finds that the Project is consistent with the standards identified in County Code Section 22.140.510.E.3 (Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards), which require: (1) a minimum 30-foot setback from the property line to the solar array; (2) a 15-foot setback for perimeter fencing; and (3) a 10-foot-deep landscaped buffer along fencing that adjoins residential or agricultural uses. The Project complies with both setback requirements, and a 10-foot landscaped buffer will be installed along 230th Street West and along the solar facility boundaries in the southwest that adjoin the existing SFR on the Project Site. As there are no other SFRs or agricultural uses adjacent to the Project Site, no additional landscaping is required or proposed. Additionally, the above-mentioned County Code Section requires that fencing not exceed eight (8) feet in height and include a small animal-permeable design. The Project's fencing complies with these requirements through the inclusion of regularly spaced 12-inch openings at the base of the proposed fence.

19. **HEIGHT.** The Commission finds that the Project is consistent with the standard identified in County Code Section 22.140.510.E.3.c.iii (Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards, Height), which states that the height of the solar arrays may not exceed 25 feet. The height of the Project's solar arrays will be approximately 10 feet and maximum 25 feet with tilt.

20. **SIGNS.** The Commission finds that the Project is consistent with the standard identified in County Code Section 22.140.510.E.3.c.vii (Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards, Signs), which states that one identification sign at each entrance is permitted. One such sign at the entrance on 230th Street West will be installed. A detailed sign plan depicting such a sign will be provided as part of the Exhibit "A".

21. **NOTIFICATION OF MILITARY AND AGENCIES WITH AVIATION-RELATED FUNCTIONS.** The Commission finds that the Project is consistent with the regulations identified in County Code Sections 22.140.510.E.3 (Renewable Energy, Utility-Scale Solar Energy Facilities, Aviation Review) and 22.140.510.H (Renewable Energy, Aviation Review), which requires the County to notify government agencies with military and/or aviation-related duties of proposed solar facilities in either Airport Influence Areas or Military Operations Areas ("MOA"). The Project Site is in an MOA. The County sent 12 notices on May 19, 2025 regarding the subject Project to the various branches of the U.S. Military, LASD Air Bureau, and Fire, among others. Only LASD Air Bureau responded in a letter dated May 27, 2025 stating that the Project will not impact its operation.

22. **RURAL OUTDOOR LIGHTING DISTRICT.** The Commission finds that the Project is consistent with the standards identified in County Code Section 22.80.050 (Rural Outdoor Lighting District, General Development Standards) and 22.140.510.E.3.c.iv

(Renewable Energy, Utility-Scale Solar Energy Facilities, Development Standards, Lighting). The Project Site is in a Rural Outdoor Lighting District. No permanent outdoor lighting is proposed for operation. The only outdoor lighting that may be required is temporary lighting during construction, particularly during the winter season when daylight is no longer sufficient earlier in the day. Any proposed lights at the Project Site will be of a type and design in compliance with the pertinent Rural Outdoor Lighting District and renewable energy facility requirements.

CONDITIONAL USE PERMIT

23. **The Commission finds that the proposed use at the site will not adversely affect the health, peace, comfort, or welfare of persons residing or working in the surrounding area; will not be materially detrimental to the use, enjoyment, or valuation of property of other persons located in the vicinity of the site; and will not jeopardize, endanger, or otherwise constitute a menace to the public health, safety, or general welfare.** The Project will be a passive low-intensity use located in a rural area surrounded by vacant land and large-lot single-family residences; and is not expected to adversely affect public health, safety, or the welfare of nearby residents. The solar facility will be unstaffed during operation, with only occasional maintenance visits, minimizing traffic and noise. A 30-foot setback, a 10-foot landscaped buffer with drought-tolerant vegetation, and perimeter fencing will further reduce potential impacts. Construction will last approximately seven (7) months with balanced on-site grading and required dust control measures. The landscaped buffer will be irrigated and maintained throughout the life of the Project to ensure continued compatibility with the surrounding area.

24. **The Commission finds that the proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping and other development features prescribed in Title 22 (Planning and Zoning) of the County Code, or as is otherwise required in order to integrate said use with the uses in the surrounding area.** The Commission finds that the 31-acre area of the solar facility on the 40-acre Project Site is adequate in size and shape to accommodate all required development features, including yards, setbacks, fencing, landscaping, access, parking, and loading facilities, in compliance with Title 22 (Planning and Zoning) of the County Code. The site's gentle topography supports the proposed utility-scale solar facility and associated infrastructure. The development will be fully contained within perimeter fencing set back 30 feet from the property lines, with landscaping provided within the setbacks. Internal access, parking, and loading areas will be integrated into the site layout to ensure functional and orderly development consistent with surrounding rural uses.

25. **The Commission finds that the proposed site is adequately served by highways or streets of sufficient width and improved as necessary to carry the kind and quantity of traffic such use would generate, and by other public or private service facilities as are required.** The Commission finds that the proposed site is adequately served by existing roadways capable of supporting the type and volume of traffic generated by the Project. The Project Site is accessed from 230th Street West, a 50-

foot-wide Secondary Highway as designated in the County Master Plan of Highways, and is located approximately 1,200 feet north of West Avenue D, also known as State Highway 138, which is designated as a Proposed Expressway. Construction traffic will primarily utilize 230th Street West, which is sufficient in width and capacity to accommodate temporary increases in traffic volume. Once operational, the Project is expected to generate minimal traffic, with no more than 10 maintenance visits per year, resulting in negligible impacts on the surrounding transportation network.

26. The Commission finds that to ensure continued compatibility between the Project and the surrounding land uses, it is necessary to limit the grant term of the CUP to 35 years.

SUPPLEMENTAL FINDINGS – **Utility-Scale Solar Energy Facilities**

27. **The Commission finds that the Project complies with all applicable development standards.** The Project complies with all applicable renewable energy development standards, including those related to setbacks, height, landscaping, and fencing, as outlined in the County Code. The solar arrays and associated structures will not exceed 25 feet in height, and perimeter fencing up to eight feet high will be installed within the required 30-foot setback, but no closer than 15 feet from the public right-of-way. A 10-foot-wide landscaped buffer will be provided within this setback along public rights-of-way and adjacent to existing single-family residences. Final plans detailing signage and lighting, consistent with general development standards, will be submitted post-hearing in accordance with CUP conditions.

28. **The Commission finds that the Project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers.** The Project has been carefully sited and designed to minimize significant environmental impacts, particularly to sensitive wildlife such as birds and bats. To reduce the potential for harm to protected avian species, the Project includes comprehensive mitigation measures such as pre-construction nesting bird surveys (MM BIO-1), specific protections for Swainson's hawks (MM BIO-2), and operational standards like orienting panels vertically at night to deter bird perching (MM BIO-11). These measures are intended to prevent disruption of nesting, foraging, and flight behavior; and ensure construction does not occur near active nests without appropriate biological oversight. Additionally, the Project minimizes environmental impacts through design features and procedural safeguards, implementation of biological monitoring, and educational programs for workers (MM BIO-3). Wildlife-friendly fencing with small-animal permeable design is required pursuant to the renewable energy ordinance requirements, reducing the potential for habitat fragmentation and entrapment. Avoidance buffers, habitat monitoring, and adaptive management strategies further protect sensitive species such as burrowing owls, desert kit fox, and American badger, and Crotch's bumble bee (MM BIO-6, BIO-7, BIO-8, and BIO-9). Collectively, these commitments ensure the Project is constructed and operated in a manner that avoids or mitigates biological impacts and maintains compatibility with the surrounding natural environment.

29. **The Commission finds that the Project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork.** The Project is sited and designed to minimize site disturbance, including grading, brush clearance, and other forms of earthwork. The Project Site is predominantly flat, allowing for minimal grading limited to essential components such as perimeter and internal access roads, retention and infiltration basins, water tank pads, and areas for battery energy storage and related electrical equipment. The solar array field itself will remain ungraded, with support piles driven directly into the ground to preserve the natural topography and soil structure. Existing vegetation will remain in place beneath the panels and will be managed through mowing to a maximum height of six (6) inches. Additionally, any areas disturbed during construction or operation that require revegetation will be maintained and monitored until successful reestablishment is achieved, as required by the Project's conditions of approval.

30. **The Commission finds that the proposed vegetation required along the facility perimeter fencing sufficiently provides a buffer from adjacent residential and agricultural uses through variable placement and muting of frontage or other sensitive viewsheds so as to provide a natural visual transition between the Project and its surroundings.** The proposed vegetation along the solar facility's perimeter fencing sufficiently provides a visual buffer from adjacent residential uses, helping to soften views of the solar facility and create a natural transition to the surrounding rural environment. The draft landscape plan includes a 10-foot-wide buffer planted with a diverse mix of drought-tolerant native shrubs and trees, including species such as California buckwheat, brittlebush, big sagebrush, California cudweed, and Tecate cypress. These plantings will be installed with appropriate spacing and layout to ensure variable height and density, providing effective screening along 230th Street West and adjacent property lines. The landscaping will be mulched to conserve water and suppress weeds, and the planting areas will be irrigated until establishment. Collectively, these design elements are intended to create a visually cohesive and environmentally appropriate buffer that integrates the Project into its rural surroundings.

31. **The Commission finds that the proposed vegetation sufficiently provides ground cover to the satisfaction of a County biologist.** The proposed vegetation sufficiently provides ground cover to the satisfaction of the County biologist. The planting palette includes six (6) shrub species, such as California buckwheat, brittlebush, big sagebrush, and California cudweed, along with Tecate cypress as a tree species, all spaced to ensure adequate coverage. A mulch layer of three (3) inches will be applied to all shrub beds to conserve moisture, suppress weed growth, and promote plant health.

32. **The Commission finds that the proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.** The proposed vegetation sufficiently provides a buffer and ground cover to the satisfaction of the County biologist. The perimeter landscape plan incorporates a mix of native, drought-tolerant plant species specifically selected for their suitability to the local climate and their ability to establish effective visual and ecological buffers. The

County biologist has reviewed and provided input on the plant selection and layout to ensure it achieves the intended buffering and ground cover functions. The final landscape plan will be subject to the County biologist's approval, as required by the conditions of the Conditional Use Permit, and all plantings will be irrigated and maintained until successfully established and throughout the operational life of the Project. The MMRP contains requirements establishing the timing of each biological mitigation measure to ensure that compliance will be accomplished in a timely manner and verified to the satisfaction of a County biologist.

33. **The Commission finds that the Project would not be detrimental to the function of a Military Operations Area and would not pose a public or safety hazard to personnel or the public.** While the Project Site is in an MOA, no comments have been received from Edwards Air Force Base and U.S. Air Force Plant 42, which were both consulted. As the Project Site is located more than 35 miles away from Edwards Air Force Base and U.S. Air Force Plant 42, it is not likely to generate any impacts to their operations or facilities. Only LASD Air Bureau responded in a letter dated May 27, 2025 stating that the Project will not impact its operation. Therefore the Project would not have detrimental impact on military operations in the area and would not pose a public or safety hazard to personnel or the public.

ENVIRONMENTAL FINDINGS

34. After consideration of the MND and MMRP, together with the comments received during the public review process, the Commission finds on the basis of the whole record before it that there is no substantial evidence that the Project as conditioned will have a significant effect on the environment, and further finds that the MND reflects the independent judgment and analysis of the Commission.

35. The Commission finds that the MMRP, prepared in conjunction with the MND, identifies in detail how compliance with its measures will mitigate or avoid potential adverse impacts to the environment from the Project. The Commission further finds that the MMRP's requirements are incorporated into the conditions of approval for this Project, and that approval of this Project is conditioned on the Permittee's compliance with the attached conditions of approval and MMRP.

36. The Commission finds that the Permittee is subject to payment of the California Department of Fish and Wildlife fees related to the Project's effect on wildlife resources pursuant to section 711.4 of the California Fish and Game Code.

ADMINISTRATIVE FINDINGS

37. **LOCATION OF DOCUMENTS.** The location of the documents and other materials constituting the record of proceedings upon which the Commission's decision is based in this matter is at LA County Planning, 13th Floor, Hall of Records, 320 West Temple Street, Los Angeles, California 90012. The custodian of such documents and

materials shall be the Section Head of the North County Development Services Section, LA County Planning.

BASED ON THE FOREGOING, THE REGIONAL PLANNING COMMISSION CONCLUDES THAT:

A. The proposed use with the attached conditions will be consistent with the adopted General Plan.

B. The proposed use at the site will not adversely affect the health, peace, comfort or welfare of persons residing or working in the surrounding area, will not be materially detrimental to the use, enjoyment or valuation of property of other persons located in the vicinity of the site, and will not jeopardize, endanger or otherwise constitute a menace to the public health, safety or general welfare.

C. The proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping and other development features prescribed in Title 22, or as is otherwise required in order to integrate said use with the uses in the surrounding area.

D. The proposed site is adequately served by highways or streets of sufficient width and improved as necessary to carry the kind and quantity of traffic such use would generate, and by other public or private service facilities as are required.

E. The Project complies with all applicable development standards.

F. The Project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers.

G. The Project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork.

H. The proposed vegetation required along the facility perimeter fencing sufficiently provides a buffer from adjacent residential and agricultural uses through variable placement and muting of frontage or other sensitive viewsheds so as to provide a natural visual transition between the Project and its surroundings.

I. The proposed vegetation sufficiently provides ground cover to the satisfaction of the County biologist.

J. The proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.

K. The Project would not be detrimental to the function of a Military Operations Area and would not pose a public or safety hazard to personnel or the public.

THEREFORE, THE REGIONAL PLANNING COMMISSION:

1. Certifies that the MND for the Project was completed in compliance with CEQA and the State and County CEQA Guidelines related thereto; certifies that it independently reviewed and considered the MND and that the MND reflects the independent judgment and analysis of the Commission as to the environmental consequences of the Project; certifies that it considered the MMRP, finding that it is adequately designed to ensure compliance with the mitigation measures during Project implementation; determined that on the basis of the whole record before the Commission that there is no substantial evidence that the Project will have a significant effect on the environment; adopts the MND and finds that the MMRP is adequately designed to ensure compliance with the mitigation measures during Project implementation; and

2. Approves **CONDITIONAL USE PERMIT NO. RPPL2023005137**, subject to the attached conditions.

ACTION DATE: August 20, 2025

SD:SC

August 7, 2025

LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

DRAFT CONDITIONS OF APPROVAL
PROJECT NO. PRJ2023-002405-(5)
CONDITIONAL USE PERMIT NO. RPPL2023005137
ENVIRONMENTAL PLAN NO. RPPL2023005138

PROJECT DESCRIPTION

The project is to authorize the development, operation, and maintenance of a ground-mounted utility-scale photovoltaic solar energy facility with an accessory battery energy storage system ("Project" or "solar facility") on a property located at the southeast of the intersection of 230th Street West and West Avenue C-8 in the unincorporated community of Lancaster, subject to the following conditions of approval:

GENERAL CONDITIONS

1. Unless otherwise apparent from the context, the term "Permittee" shall include the applicant, owner of the property, and any other person, corporation, or other entity making use of this grant.

2. This grant shall not be effective for any purpose until the Permittee, and the owner of the subject property if other than the Permittee, have filed at the office of the Los Angeles County ("County") Department of Regional Planning ("LA County Planning") their affidavit stating that they are aware of and agree to accept all of the conditions of this grant, and that the conditions of the grant have been recorded as required by Condition No. 6, and until all required monies have been paid pursuant to Condition Nos. 9, 10, and 13. Notwithstanding the foregoing, this Condition No. 2 and Condition Nos. 3, 4, and 8 shall be effective immediately upon the date of final approval of this grant by the County.

3. The Permittee shall defend, indemnify, and hold harmless the County, its agents, officers, and employees from any claim, action, or proceeding against the County or its agents, officers, or employees to attack, set aside, void, or annul this permit approval, which action is brought within the applicable time period of Government Code section 65009 or any other applicable limitations period. The County shall promptly notify the Permittee of any claim, action, or proceeding and the County shall reasonably cooperate in the defense. If the County fails to promptly notify the Permittee of any claim, action, or proceeding, or if the County fails to cooperate reasonably in the defense, the Permittee shall not thereafter be responsible to defend, indemnify, or hold harmless the County.

4. In the event that any claim, action, or proceeding as described above is filed against the County, the Permittee shall within ten days of the filing make an initial deposit with LA County Planning in the amount of up to $5,000.00, from which actual costs and expenses shall be billed and deducted for the purpose of defraying the costs or expenses involved in LA County Planning's cooperation in the defense, including but not limited to, depositions, testimony, and other assistance provided to Permittee or Permittee's counsel.

If during the litigation process, actual costs or expenses incurred reach 80 percent of the amount on deposit, the Permittee shall deposit additional funds sufficient to bring the balance up to the amount of $5,000.00. There is no limit to the number of supplemental deposits that may be required prior to completion of the litigation.

At the sole discretion of the Permittee, the amount of an initial or any supplemental deposit may exceed the minimum amounts defined herein. Additionally, the cost for collection and duplication of records and other related documents shall be paid by the Permittee according to County Code Section 2.170.010.

5. If any material provision of this grant is held or declared to be invalid by a court of competent jurisdiction, the permit shall be void and the privileges granted hereunder shall lapse.

6. Prior to the use of this grant, the Permittee, or the owner of the subject property if other than the Permittee, shall **record the terms and conditions** of the grant in the office of the County Registrar-Recorder/County Clerk (i.e. Recorder's Office). In addition, upon any transfer or lease of the property during the term of this grant, the Permittee, or the owner of the subject property if other than the Permittee, shall promptly provide a copy of the grant and its conditions to the transferee or lessee of the subject property.

7. **This grant shall terminate on August 20, 2060**. Entitlement to use of the property thereafter shall be subject to the regulations then in effect. If the Permittee intends to continue operations after such date, whether or not the Permittee proposes any modifications to the use at that time, the Permittee shall file a new conditional use permit application with LA County Planning, or shall otherwise comply with the applicable requirements at that time. Such application shall be filed at least twelve months prior to the expiration date of this grant and shall be accompanied by the required fee. In the event that the Permittee seeks to discontinue or otherwise change the use, notice is hereby given that the use of such property may require additional or different permits and would be subject to the then-applicable regulations.

8. This grant shall expire unless used within two (2) years from the date of final approval of the grant. A single one-year time extension may be requested in writing and with the payment of the applicable fee prior to such expiration date.

9. The subject property shall be maintained and operated in full compliance with the conditions of this grant and any law, statute, ordinance, or other regulation applicable to any development or activity on the subject property. Failure of the Permittee to cease any development or activity not in full compliance shall be a violation of these conditions. No provision of any easement of any other encumbrance on the property shall exempt the Permittee and/or property owner from compliance with these conditions and applicable regulations. Inspections shall be made to ensure compliance with the conditions of this grant as well as to ensure that any development undertaken on the subject property is in accordance with the approved site plan on file. The Permittee shall deposit with the County the sum **$22,800.00**

which shall be placed in a performance fund and be used exclusively to reimburse LA County Planning for all expenses incurred while inspecting the premises to determine the Permittee's compliance with the conditions of this grant. The fund provides for **50** inspections.

Inspections may be unannounced. Inspections may be conducted utilizing any available technologies, including, but not limited to, unmanned aircraft systems (UAS). Use of an UAS requires the consent of the Permittee pursuant to LA County Planning's UAS policy, which may be updated from time to time, and which shall be provided to the Permittee upon request.

If additional inspections are required to ensure compliance with the conditions of this grant, or if any inspection discloses that the subject property is being used in violation of any one of the conditions of this grant, the Permittee shall be financially responsible and shall reimburse LA County Planning for all additional enforcement efforts necessary to bring the subject property into compliance. The amount charged for additional inspections shall be $456.00 per inspection, or the current recovery cost established by LA County Planning at the time any additional inspections are required, whichever is greater.

10. Within five (5) working days from the day after the appeal period ends **September 3, 2025,** the Permittee shall remit processing fees at the County Registrar-Recorder/County Clerk Office (i.e. County Clerk Office), payable to the County of Los Angeles, in connection with the filing and posting of a Notice of Determination ("NOD") for this project and its entitlements in compliance with section 21152 of the Public Resources Code. Unless a Certificate of Exemption is issued by the California Department of Fish and Wildlife pursuant to section 711.4 of the California Fish and Game Code, the Permittee shall pay the fees in effect at the time of the filing of the NOD, as provided for in section 711.4 of the Fish and Game Code, currently **$3,043.75** ($2,968.75 for a Negative Declaration or Mitigated Negative Declaration plus $75.00 processing fee No land use project subject to this requirement is final, vested or operative until the fee is paid.

11. The Permittee shall comply with all mitigation measures identified in the Mitigation Monitoring Program ("MMP"), which are incorporated by this reference as if set forth fully herein.

12. Within thirty (30) days of the date of final approval of the grant by the County, the Permittee shall record a covenant and agreement, which attaches the MMP and agrees to comply with the mitigation measures imposed by the Mitigated Negative Declaration for this project, in the Recorder's Office. Prior to recordation of the covenant, the Permittee shall submit a draft copy of the covenant and agreement to LA County Planning for review and approval. As a means of ensuring the effectiveness of the mitigation measures, the Permittee shall submit annual mitigation monitoring reports to LA County Planning for approval or as required. The reports shall describe the status of the Permittee's compliance with the required mitigation measures.

13. The Permittee shall deposit an initial sum of **$6,000.00** with LA County Planning within thirty (30) days of the date of final approval of this grant in order to defray the cost of reviewing and verifying the information contained in the reports required by the MMP. The Permittee shall replenish the mitigation monitoring account if necessary until all mitigation measures have been implemented and completed.

14. Notice is hereby given that any person violating a provision of this grant is guilty of a misdemeanor. Notice is further given that the Regional Planning Commission ("Commission") or a Hearing Officer may, after conducting a public hearing, revoke or modify this grant, if the Commission or Hearing Officer finds that these conditions have been violated or that this grant has been exercised so as to be detrimental to the public's health or safety or so as to be a nuisance, or as otherwise authorized pursuant to Chapter 22.238 of the County Code.

15. All development pursuant to this grant must be kept in full compliance with the County Fire Code to the satisfaction of the County Fire Department ("Fire").

16. All development pursuant to this grant shall conform with the requirements of the County Department of Public Works ("Public Works") to the satisfaction of said department.

17. All development pursuant to this grant shall comply with the requirements of Title 22 of the County Code and of the specific zoning of the subject property, unless specifically modified by this grant, as set forth in these conditions, including the approved Exhibit "A," or a revised Exhibit "A" approved by the Director of LA County Planning ("Director").

18. The Permittee shall maintain the subject property in a neat and orderly fashion. The Permittee shall maintain free of litter all areas of the premises over which the Permittee has control.

19. All structures, walls and fences open to public view shall remain free of graffiti or other extraneous markings, drawings, or signage that was not approved by LA County Planning. These shall include any of the above that do not provide pertinent information about said premises. The only exceptions shall be seasonal decorations or signage provided under the auspices of a civic or non-profit organization.

    In the event of graffiti or other extraneous markings occurring, the Permittee shall remove or cover said markings, drawings, or signage within 30 days of such notification, weather permitting. Paint utilized in covering such markings shall be of a color that matches, as closely as possible, the color of the adjacent surfaces.

20. The subject property shall be developed and maintained in substantial conformance with the plans marked Exhibit "A." If changes to any of the plans marked Exhibit "A" are required as a result of instruction given at the public hearing, **one digital copy of** a modified Exhibit "A" shall be submitted to LA County Planning by **October 20, 2025**.

21. In the event that subsequent revisions to the approved Exhibit "A" are submitted, the Permittee shall submit **one digital copy of** the proposed plans to the Director for review and approval. All revised plans must substantially conform to the originally approved Exhibit "A". All revised plans must be accompanied by the written authorization of the property owner(s) and applicable fee for such revision.

PERMIT-SPECIFIC CONDITIONS – CONDITIONAL USE PERMIT (UTILITY-SCALE SOLAR ENERGY FACILITY

22. This grant shall authorize the construction, operation, and maintenance of a ground-mounted utility-scale solar energy facility with an accessory BESS on a 40-acre site.

23. Within 60 days of the date of final approval of the grant by the County or prior to ground disturbance and/or issuance of grading permit, whichever is first, the permittee shall submit to LA County Planning a final Landscaping and Revegetation Plan ("LRP") for review and approval and shall comply with all requirements of such LRP. Such plan shall include wildlife-friendly perimeter fences up to eight (8) feet in height that encloses the solar facility and a 10-foot landscape buffer along 230^{h} Street West and along the southwestern boundary of the solar facility where the facility adjoins an existing SFR, subject to the approval of the Director.

24. Within 60 days of the date of final approval or prior to ground disturbance and/or issuance of grading permit, whichever is first, the permittee shall submit to LA County Planning a detailed signage plan. Such plans shall include:

    a. One (1) pole-mounted project identification sign at each temporary or permanent ingress or egress point.
    b. Signs shall include owner and emergency contact information.
    c. No other signs shall be posted other than safety, directional, and warning signs.

25. The permittee shall irrigate the perimeter landscaping (referenced in Condition No. 23) for a minimum of three (3) years or until the landscaping has successfully established. The permittee shall ensure that the perimeter landscaping remains successfully established to the satisfaction of LA County Planning throughout the entire grant term. The permittee shall maintain all landscaping in a neat, clean, and healthful condition and shall properly prune, weed, remove litter, fertilize, and replace plants when necessary. The permittee shall continue irrigation of perimeter landscaping and revegetate as reasonably necessary to maintain the health of the landscaping throughout the life of this grant to the satisfaction of LA County Planning. Perimeter fence screening slats or other material shall be maintained in good condition and missing, broken, tattered, or torn pieces shall be repaired and/or replaced as necessary. Any area on the Project Site in need of revegetation because of Project construction or operation shall also be maintained until successfully reestablished to the satisfaction of the Director.

26. Prior to any ground disturbance and/or the issuance of grading permits, the permittee shall submit a dust control plan, including a dust plume response plan, for review and

approval by the Antelope Valley Air Quality Management District ("AVAQMD") and confirmation by LA County Planning.

27. Appropriate training for respiratory protection shall be provided to construction workers prior to construction activities. Dust masks (National Institute for Occupational Safety and Health [NIOSH] approved) shall be provided with proper training to construction workers to mitigate against dust exposure and possibly Valley Fever during high-wind events and/or dust-generating activities. Evidence of this training shall be kept on site and shall be made available to County staff upon request.

28. The permittee shall abide by the following dust control measures:

    a. During site preparation and during operations, retain or mow vegetation in and around array sites to prevent vegetative root loss. Disking, tilling, or grading of array sites is prohibited except where specifically authorized by Public Works. Roads, drainage basins, equipment pads, and any other required earthwork authorized by Public Works shall be done in compliance with grading regulations;

    b. Maintain dust control using (to the extent applicable) phased earthwork, watering, clean gravel, composted wood chips not to exceed six (6) inches in depth, application of non-toxic soil stabilizers on disturbed areas, revegetation, limited public access on unpaved areas, speed limits on construction sites, and other dust control measures used during construction, operations, and removal and restoration activities;

    c. If required by AVAQMD, during construction, provide on the Project Site weather stations, monitors with wind speed, wind direction, temperature and humidity sensors, and mechanical dust-monitoring devices, placed to the satisfaction to AVAQMD, to ensure the effectiveness of the Project's dust control plan;

    d. Establish vegetation along certain portions of the Project perimeter, where required by the Landscape and Revegetation Plan, as early as feasible following Project approval for both visual screening and to limit off-site movement of dust.

    e. During ground preparation, disturbance, grading or construction, pay the costs of an on-site mitigation and conditions compliance monitor, to the satisfaction to the Director, to independently monitor and report on Project compliance. The monitor shall be on-site during all site preparation, grading, and excavation and backfilling work.

29. Prior to any ground disturbance or obtaining any grading permit, the permittee shall provide the County with a decommissioning plan ("Decommissioning Plan") in connection with any and/or all of the terminating events described in Condition No. 31, which Decommissioning Plan shall include, at a minimum, a detailed plan for decommissioning and deconstructing the facility and for restoration of the site (collectively referred to as "decommissioning"). The Decommissioning Plan shall be developed to the satisfaction of the Director and the Director of Public Works and subject to their review and approval.

The Decommissioning Plan shall provide for, including, but not limited to, the following:

a. Removal or recycling of solar panel structures and all appurtenant above-ground equipment;

b. Removal of any on-site overhead poles and above-ground electricity lines;

c. Removal of permanent above-ground transmission lines and poles located in the public right-of-way, if determined not usable by Public Works and/or any other applicable public or private utility at the time of decommissioning;

d. Restoration of any disturbed soil and revegetation of the Project Site to its pre-construction condition, with native vegetation similar to the vegetation in the surrounding vicinity;

e. Restoration or reclamation of project roads to their pre-construction condition unless the then-existing owner of the Project Site elects to retain the improved roads for access throughout the Project Site;

f. Documentation of the pre-construction condition of the Project Site, including, but not limited to, a photographic record; and

g. Details of the performance and financial assurance guarantees described in this Condition No. 29, explaining the amounts and schedule for the provision of such guarantees.

30. Prior to any ground disturbance or obtaining any grading or building permits, the permittee shall record an easement granting access to the County for activities related to decommissioning. A draft easement document shall be submitted for review and approval by the Director and Director of Public Works, prior to easement recordation.

31. Prior to obtaining any grading permits or ground disturbance, the permittee shall provide to the County, to the satisfaction of the Director and Director of Public Works, performance and financial assurance guarantees in an amount sufficient to ensure the performance of the approved Decommissioning Plan, as described in Condition No. 29. Additionally, the permittee shall be solely responsible for the costs and expenses associated with decommissioning the Project Site after any of the terminating events described in this Condition No. 31. In the event that the performance and financial assurance guarantees are not sufficient to fully compensate the County for the cost and expense of decommissioning the Project Site, the permittee shall be responsible for compensating the County for any shortfall. In determining the sufficiency of the performance and financial assurance guarantees, the residual value of the solar panels, support structures, and other salvageable equipment (collectively "Salvageable Property") shall be considered. The residual value of the real property itself shall not be considered or included in the determination of whether the performance and financial guarantees are sufficient.

With respect to the performance and financial assurance guarantees, the following requirements shall apply:

a. The permittee shall ensure that such guarantees are detailed in the approved Decommissioning Plan to the satisfaction of the Director and Director of Public Works, and that such Decommissioning Plan shall explain the amounts and schedule for the provision of such guarantees.

b. The permittee shall provide a report to the Director every five (5) years after the date of final approval of this grant to confirm that the performance and financial assurance guarantees are sufficient to ensure performance and implementation of the Decommissioning Plan. The report shall be subject to review and approval by the Director and Director of Public Works particularly as to whether the performance and financial assurance guarantees are adequate to meet existing conditions at the time of the report.

c. A decommissioning pro forma summarizing the residual value of the Salvageable Property shall be included in the report. The pro forma shall include, at a minimum, the expected revenue from all Salvageable Property, as defined in this Condition No. 31, the then-current cost of decommissioning the site, as required by the approved Decommissioning Plan, and the then-current value of any performance and financial assurance guarantees that have been provided as of the date of such report. In the event it is determined that the performance and financial assurance guarantees as insufficient to perform the decommissioning of the site as required by the approved Decommissioning Plan, the permittee shall be required to provide additional performance and financial assurance guarantees to the satisfaction of the Director and the Director of Public Works, no less than 10 years before the expiration of the grant;

d. Any funds not used by the County in connection with decommissioning the site shall be returned to the permittee; and

e. The performance and financial assurance guarantees may consist of, including, but not limited to, one or more of the following, to the satisfaction of the Director and Director of Public Works:

   1) An irrevocable letter of credit;

   2) A surety bond;

   3) An appropriate insurance policy;

   4) A trust fund or escrow account, established and maintained in accordance with approved financial assurances and practices to guarantee that decommissioning the site will be completed in accordance with the approved Decommissioning Plan, as approved by Public Works;

   5) Other financial assurances as reviewed and approved by the respective County administrative offices, in consultation with LA County Planning; or

   6) A corporate guarantee shall not be considered a sufficient financial assurance guarantee.

32. Upon discontinuance of the permittee's operation as set forth in Condition No. 33, abandonment of the project in whole or in part, or termination of this grant as

described in Condition No. 7, and in the event that a new permit application is not timely filed for a continued similar use or reuse of the site, the permittee shall perform decommissioning in accordance with the approved Decommissioning Plan, or compensate the County for use of a County-contracted consultant to perform such decommissioning. In the alternative, and at the County's sole election, the County shall be entitled to use any performance and/or financial assurance guarantees, as described in Condition No. 31(e), to perform the decommissioning itself or to contract for such decommissioning. The permittee shall grant the County the necessary access to the subject property to perform such decommissioning or to allow a County-retained contractor to perform such decommissioning.

33. In the event that any portion of the solar field is not in operational condition for a consecutive period of 24 months, operations for the portion of the Project Site shall be deemed to have been discontinued and that portion of the facility shall be removed from the Project Site within six (6) months from the date that written notice is sent to the permittee from LA County Planning. Within this six-month period, the permittee may provide the Director a written request and justification for an extension of up to 12 months to resume operations of that portion of the site, which request shall be subject to the satisfaction and approval of the Director. A second written request and justification for a second extension of up to 12 months may also be submitted, which the Director may grant if the request is adequately justified based on the Director's determination. In no event shall the operations of the solar field or portion of the solar field be discontinued for more than 36 months from the date such operations were first deemed discontinued without being decommissioned pursuant to the approved Decommissioning Plan. Further, in no event shall any extension of the period to resume operations of any portion of the Project Site pursuant to this Condition No. 30 be deemed to extend the term or expiration date of this grant.

34. Nothing in this grant shall prevent the permittee from installing more efficient solar panels in the future or increasing output, provided the footprint and overall disturbance area of the project does not substantially change. At such time the permittee wishes to install more efficient solar panels, a Revised Exhibit "A" shall be submitted to the County for such installation.

35. The project shall comply with all requirements of the Rural Outdoor Lighting District. If lighting is proposed, a lighting plan shall be submitted to LA County Planning for review and approval by the Director. The Lighting Plan may be included in the Project Electrical Plans as separate sheets.

36. The water tanks on the subject property shall be painted an earth-tone color (beige, sand, taupe or similar colors) to blend in with the surroundings, subject to review and approval by the Director.

37. Water use for the facility shall be limited to a maximum of 13 acre-feet for construction and 0.2 acre-feet per year for operation. The permittee shall maintain a daily log of the amount of water used during the construction. The permittee shall complete a monthly water usage report within eight days following the conclusion of each calendar month. This log shall be made available to LA County Planning upon

request. The permittee shall first attempt to use recycled water for the Project. If recycled water is not available or feasible, subject to verification by the Director, then alternative water sources may be used, such as water from wells.

38. On-site and off-site generation-tie lines shall be placed underground to the satisfaction of Public Works.

39. Mobile sanitation facilities and a potable drinking water supply shall be made available to workers during construction of the Project subject to the satisfaction of the County Department of Public Health ("Public Health").

40. The permittee shall make use of the manufacturer's photovoltaic solar panel recycling program. Other panel recycling programs may be used as well subject to approval of the Director.

41. The permittee shall provide parking as required by the County Code, calculated at a parking ratio of one parking space for each two persons employed. The unmanned solar photovoltaic facility does not include operations buildings or other buildings but does require occasional servicing, which requires one space per two persons servicing the facility. These spaces do not have to be marked. During construction parking shall be provided on-site and/or off-site at a location approved by the Director.

42. Temporary screening of construction and staging areas (e.g. fencing with fabric or slats) shall be installed prior to construction/ground-disturbing activities to the satisfaction of the Director.

43. Wildlife-friendly perimeter fencing shall be erected subject to review and approval by the Director.

44. The use of insecticides, herbicides, anti-coagulant rodenticides or any toxic chemical substance which has the potential to significantly degrade biological resources shall be prohibited, except where necessary to protect or enhance the habitat itself, such as for eradication of invasive plant species or habitat restoration, and where there are no feasible alternatives that would result in fewer adverse effects to the habitat value of the site. Such use shall be subject to approval by LA County Planning.

45. The LA County Planning project number, conditional use permit number and lease holder contact information shall be prominently displayed on the facility accessible to the public where it can be easily viewed at or near eye level.

46. The permittee shall comply with all conditions set forth in the attached letters from Public Works, County Department of Parks and Recreation, Public Health, and Fire letters in the attachments.

Attachments:
Exhibit D-1 Public Works Letter dated December 23, 2024

	Parks and Recreation letter dated December 19, 2023
	Public Health Letter dated May 15, 2024
	Fire Department Letters dated December 19, 2023
Exhibit D-2	Mitigation Monitoring Program (pages 1- 15)

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

MARK PESTRELLA, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

December 23, 2024

IN REPLY PLEASE
REFER TO FILE: LD-4

TO: Samuel Dea
North County Development Services
Department of Regional Planning

Attention Soyeon Choi

FROM: James Chon
Land Development Division

CONDITIONAL USE PERMIT (RPPL2023005137)
ASSESSOR'S MAP BOOK 3278, PAGE 25, PARCEL 1
UNINCORPORATED LANCASTER

As requested, Public Works reviewed the zoning permit application and site plan for the proposed project. The project proposes a five-megawatt, ground-mounted, commercial solar and a five-megawatt, accessory, battery energy storage system facility located on approximately 29 acres of a 40-acre parcel.

☒ Public Works recommends that the conditions shown below be applied to the project if ultimately approved by the advisory agency.

☐ Public Works has comments on the submitted documents; therefore, a Public Hearing shall NOT be scheduled until the comments have been addressed.

1. Street

1.1. Prior to issuance of a grading or building permit, submit street improvement plans to Public Works, through the EPIC-LA portal under "Public Improvement Plans: Street Plans," that reflects the following for review and approval:

Be advised that we currently have no known County construction project within the limits of your project. Should a County project be scheduled and constructed ahead of the applicant's development, a pavement moratorium may be imposed that would restrict any pavement work for two

years. Exceptions could be made if acceptable rehabilitation measures are provided. The applicant is encouraged to monitor https://pw.lacounty.gov/gmed/lacroads/Find.aspx periodically to determine if any future County projects have been scheduled or to determine whether a pavement moratorium currently exist along streets fronting the project location.

1.1.1. Make an offer of private and future street right-of-way, 32 feet from the street centerline, along the property frontage on West Avenue C-8, 227th Street West, and the southerly side of the property line.

1.1.2. Dedicate a 10-foot slope easement beyond the offer of all private and future street.

For questions regarding the dedication process, contact Diego Rivera of Public Works, Land Development Division, at (626) 458-4915 or dirivera@pw.lacounty.gov.

1.1.3. Construct driveway approaches on 230th Street West, based on Los Angeles County Rural Standard Plan, and pave the drive access up to the edge of existing pavement (two percent maximum slope). A minimum four-feet clearance shall be kept from proposed driveway to any utility pole.

1.1.4. Repair and replace any improvements damaged during construction.

1.1.5. Underground all new utility lines less than 50kV.

1.1.6. Submit preconstruction and post-construction street pavement condition evaluation reports, along the construction traffic route, to Public Works for review and approval. The timing of any necessary repair or reconstruction on all streets shall be determined by Public Works.

1.1.7. Submit the project's fair-share calculation of the street pavement reconstruction, along the construction traffic route, to Public Works for review and approval and contribute the project's fair share. The timing of the project's fair share payment shall be determined by Public Works.

1.1.8. Provide access rights to neighboring lots to have access to the public road from West Avenue C-8 and the southerly side of the lot.

1.2. Prior to issuance of a Certificate of Occupancy, construct all required street improvements and dedications.

For questions regarding the street conditions, please contact Pemaneh Abaghi of Public Works, Land Development Division, at (626) 979-5417 or pabaghi@pw.lacounty.gov.

2. Drainage

2.1. Prior to issuance of a Certificate of Occupancy, comply with the approved hydrology study and LID Plan.

For questions regarding the drainage condition, please contact Christian Ascencio of Public Works, Land Development Division, at (626) 458-4921 or cascencio@pw.lacounty.gov.

3. Water

3.1. Prior to issuance of a Certificate of Occupancy, comply with all the requirements stipulated by the Will Serve letter issued by the water purveyor.

For questions regarding the water condition, please contact Ms. Abaghi of Public Works, Land Development Division, at (626) 979-5417 or pabaghi@pw.lacounty.gov.

4. Geology

4.1. Prior to issuance of a grading or building permit, comply with the approved geotechnical report.

For questions regarding the geology condition, please contact Karin Burger of Public Works, Geotechnical and Materials Engineering Division, at (626) 458-7989 or kburger@pw.lacounty.gov.

5. Environmental

5.1. Any damaged or unusable panels shall be collected and loaded into standard enclosed trucks and transported to a recycling or disposal facility as required by local or State regulations at the time of removal.

For questions regarding the environmental condition, please contact Lance Cervantes of Public Works, Environmental Programs Division, at (626) 458-3590 or lcervantes@pw.lacounty.gov.

If you have any questions or require additional information, please contact Ed Gerlits of Public Works, Land Development Division, at (626) 458-4953 or egerlits@pw.lacounty.gov.

DK:la
P:\ldpub\SUBPCHECK\Plan Checking Files\CUP\RPPL2023005137 - 3278025001\2024-10-16 Submittal\DPW_Cleared_2024-11-19_RPPL2023005137.docx

COUNTY OF LOS ANGELES FIRE DEPARTMENT
FIRE PREVENTION DIVISION

Land Development Unit
5823 Rickenbacker Road
Commerce, CA 90040
Telephone (323) 890-4293, Fax (323) 890-9783

EPIC-LA NUMBER:	RPPL2023005137	PROJECT NUMBER:	Utility Scale Solar Facility @ 3278025001
CITY/COMMUNITY:	West Antelope Valley	STATUS:	Cleared
PROJECT ADDRESS:		DATE:	12/19/2023

CONDITIONS

1. A perimeter interior roadway is required around the entire solar array field.
2. The proposed solar array fields will require a minimum of one entry/ exit location.
3. In addition to the interior perimeter Fire Department access road, the design of the solar array field necessitates the need for additional interior on-site Fire Department access roads going in the directions north to south and east to west.
4. The fire apparatus on-site & off-site access roads shall be installed and maintained in a drivable condition for the duration of the solar project.
5. The fire apparatus on-site & off-site access roads shall be installed prior to occupancy or operation of the facility.
6. The minimum roadway width within the solar array field is 20 feet, clear-to-the sky, when there is no proposed or existing building on-site.
7. Provide a minimum centerline turning radius of 32 feet, with an inner radius of 22 feet and an outer radius of 42 feet, for each turn in the solar array field.
8. The fire apparatus on-site & off-site access roads for the solar array field shall have a soil compaction of 90%, OR the apparatus access road shall be excavated and re-compacted to 90% with no proposed buildings.
9. Gates Requirements: (1) The onsite ingress/ egress gate shall be located on the address side of the property; (2) The onsite ingress/ egress gate width shall be a minimum of 2 feet, clear-to-sky, with all gate hardware clear of the roadway width when a buildings is proposed; (2) The onsite ingress/ egress gate width shall be a minimum of 20 feet, clear-to-sky, with all gate hardware clear of the roadway width when a building(s) is not proposed; (3) The location of the gate shall be located a minimum of 50 feet from the public right-of-way; (4) The facility emergency contact information shall be provided with each limited access device, per County of Los Angeles Fire Department Regulation 5, and shall be clearly indicated with an appropriate placard at each ingress location. The minimum size of the placard shall be 12 inches X 12 inches; (5) All locking devices shall comply with the County of Los Angeles Fire Department Regulation 5, Compliance for Installation of Emergency Access Devices; (6) No interior gates permitted on the on-site access roads.
10. A minimum of one water tank is required for the proposed solar array field. The water tank is to be located near the address side entry/ exit gates and is to be indicated on the site plan.
11. This development requires the installation of one water tank with a minimum tank size of 10,000 gallons for Fire Department use only.
12. The water tanks shall be clearly identified for "Fire Department Use Only".
13. The water tanks shall be in compliance with Fire Department standards.
14. The water tank shall have a low-level water local alarm which shall be in compliance with all applicable codes and regulations. The low-level water local alarm can be battery operated.
15. The water tank shall have a Fire Department supply outlet of 2 ½ inches in diameter with National Standard threads. The supply outlet is to be located 14-24 inches above the finished grade and is required to be protected by approved barricades.
16. If the outlet is not provided directly off the tank, provide a 6-inch underground pipe to a 4-inch upright pipe with an outlet of 2 ½ inches with National Standard threads, which is required to be protected by barricades.
17. The proposed Battery Energy Storage System shall be incompliance with Chapter 12 and all other applicable

Reviewed by:

sections within the County of Los Angeles Fire Code.

18. All electrical disconnect locations shall be clearly identified and be in compliance with all applicable state and local codes.
19. The clearance of vegetation shall be in compliance with the brush clearance regulation as defined by the Fire Code or as directed by the Fire Official.
20. The vegetation shall be trimmed to a maximum height of 6 inches within the boundaries of the solar array and the Electrical transformer vaults or structures shall have all vegetation cleared to mineral soil for 50 feet.

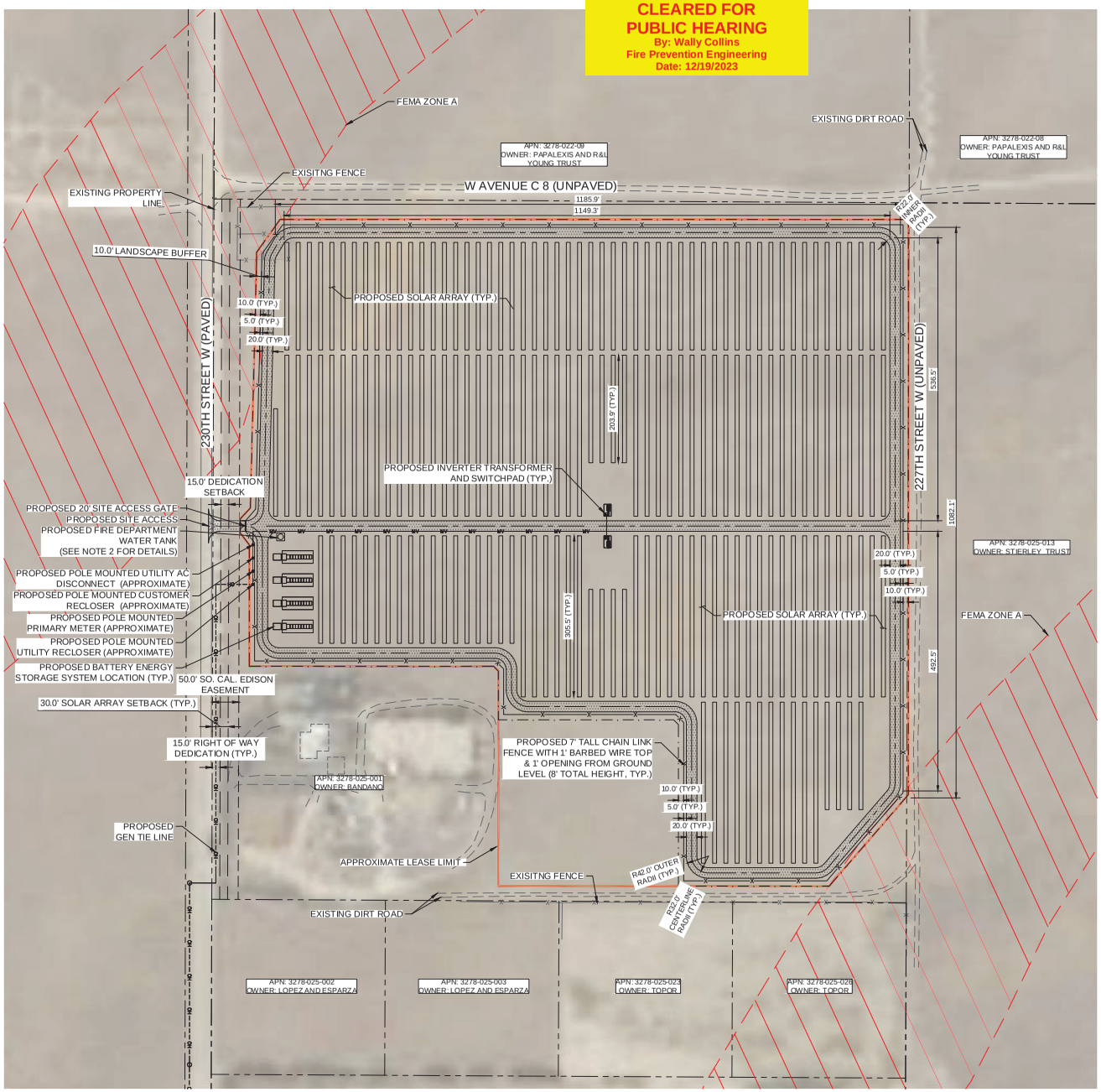
For any questions regarding the report, please contact Wally Collins at (323) 890-4243 or Wally.Collins@fire.lacounty.gov.

Reviewed by:



RPPL2023005137

COUNTY OF LOS ANGELES
FIRE DEPARTMENT
FIRE PREVENTION DIVISION
LAND DEVELOPMENT UNIT
CLEARED FOR PUBLIC HEARING
By: Wally Collins
Fire Prevention Engineering
Date: 12/19/2023



LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 7' TALL CHAIN LINK FENCE WITH 1' BARBED WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT

SITE INFORMATION

PROJECT ADDRESS:	49950 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 065043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

SURVEY NOTE

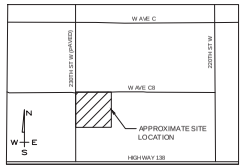
DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED MAY 31, 2022, ISSUING OFFICE: 7676 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108. ISSUING AGENT: FRANK GREEN. TITLE ORDER NUMBER: 2200033080. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. TRACKER HEIGHT MAXIMUM IS 10 FEET.
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	40+	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y

TRACKER QTY.	
DC SYSTEM SIZE	6,415.20 kW
# OF 81 MODULE TRACKER ROWS	90
# OF 54 MODULE TRACKER ROWS	85



VICINITY MAP
NTS

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1490
WWW.KIMLEY-HORN.COM

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT	069997002
DATE	11/2/2023
SCALE	AS SHOWN
DESIGNED BY	BC
DRAWN BY	BC
CHECKED BY	CY

CONCEPTUAL SITE PLAN

230TH STREET SOLAR

PREPARED FOR
RPCA SOLAR 12, LLC

LOS ANGELES COUNTY CALIFORNIA

SHEET NUMBER
C1.0

Plotted By: Crump, Brenna Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN November 02, 2023 07:47:05pm K:\LD7_ENERGY\RPCA Ground-mount\069997002-RCPA_230th St Exhibit E\06_CAD_PlanSheets\C6.X — SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Parks Make Life Better!"
Norma E. García-González, Director Alina Bokde, Chief Deputy Director

December 19, 2023

TO: Soyeon Choi
Department of Regional Planning

FROM: Jui Ing Chien JIC
Planning and CEQA Section

SUBJECT: **UTILITY SCALE SOLAR FACILITY (RPPL2023005137)**
CONDITIONAL USE PERMIT
49560 230TH STREET W, LANCASTER, CA 93536

The proposed project has been reviewed for potential impacts on the facilities of the Department of Parks and Recreation (DPR). The project will not impact any DPR facilities, and we have no comments. Thank you for including this Department in the review of this document. If you have any questions, please contact me at jchien@parks.lacounty.gov or (626) 588-5317.

COUNTY OF LOS ANGELES
Public Health

BARBARA FERRER, Ph.D., M.P.H., M.Ed.
Director

MUNTU DAVIS, M.D., M.P.H.
County Health Officer

MEGAN McCLAIRE, M.S.P.H.
Chief Deputy Director

LIZA FRIAS, REHS
Director of Environmental Health

BRENDA LOPEZ, REHS
Assistant Director of Environmental Health

SCOTT ABBOTT, REHS, M.P.A.
Assistant Director of Environmental Health

5050 Commerce Drive
Baldwin Park, California 91706
TEL (626) 430-5374 • FAX (626) 813-3000

www.publichealth.lacounty.gov/eh/

BOARD OF SUPERVISORS

Hilda L. Solis
First District

Holly J. Mitchell
Second District

Lindsey P. Horvath
Third District

Janice Hahn
Fourth District

Kathryn Barger
Fifth District

May 15, 2024

TO: Samuel Dea
Supervising Regional Planner
Department of Regional Planning

Attention: Soyeon Choi

FROM: Charlene Contreras
Director, Community Protection Branch
Department of Public Health

SUBJECT: CONDITIONAL USE PERMIT (CUP) REQUEST
CASE: RPPL2023005137
APN: 3278-025-001

Thank you for the opportunity to review the application and project located at the subject property. This applicant requests to install 5 megawatts (MW) ground-mounted commercial solar and a 5 MW accessory battery energy storage system (BESS) facility located on approximately 29 acres of a 40-care parcel at the above location.

☒ Public Health conditions for this project have been met as of the date of this letter. Public Health recommends the clearance of the aforementioned project.

☐ Public Health requires that the conditions or information requested below are addressed prior to agency approval; therefore, the Department **DOES NOT** recommend clearance of this project until the following conditions are met:

1. Drinking Water Program: Potable Water

The project would be unmanned, and no employees would report to the project site daily. Project construction and operation would not utilize water facilities. The project would purchase water from a local purveyor. Water used for solar panel and inverter washing will be trucked in from an offsite source. A 10,000-gallon water tank would be installed for fire department use only.

For questions regarding drinking water, please contact Beverly Tway, Drinking Water Program at (626) 430-5420 or btway@ph.lacounty.gov.

2. Land Use Program: Wastewater

According to the Los Angeles County Sanitary Sewer Network-Consolidated Sewer Maintenance District, there are no sewer lines within 200 feet of the project.

The California Code of Regulations, Tittle 8, Section 8397.4 Health and Sanitation, subsection (d)(2)(A) and Table F-2, only when the employer demonstrate that it is not feasible to provide sewered toilets, or when there is a temporary increase in the number of employees for a short duration of time. “The employer shall abide by the requirement of the provision of portable toilets and proper handwashing facilities. Under this section, portable water, soap or waterless skin cleaning agents, and single-use hand towels must be supplied.”

Applicant must utilize a permitted Toilet Rental Agency Service in Los Angeles County during construction and/or maintenance activities.

For questions regarding wastewater, please contact Xiomara Santana, Land Use Program at (626) 430-5380 or xsantana@ph.lacounty.gov.

3. Community Protection Branch: Environmental Hygiene

Please Note: The following are general requirements for Noise and Air Quality recommendations for the proposed project.

The applicant shall abide by all applicable requirements contained in Title 12, Chapter 12.08 - Noise Control Ordinance of the County of Los Angeles (reference available at municode.com). The sections in Title 12 that apply to this project include but are not limited to 12.08.390 (Exterior Noise Standards), 12.08.440 (Construction Noise) and 12.08.530 (Residential air conditioning or refrigeration equipment).

3.1 Exterior Noise Ordinance:
12.08.390 Exterior Noise Standards

No person shall operate or cause to be operated, any source of sound at any location within the unincorporated county or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards in Table 1.

Exterior Noise Standards, dBA						
Area	Duration	Std # 1 = L50	Std # 2 = L25	Std # 3 = L8.3	Std # 4 = L1.7	Std # 5 = L0
		30min/hr	15min/hr	5 min/hr	1 min/hr	At no time
Residential	7 am – 10 pm	50	55	60	65	70
	10 pm – 7 am	45	50	55	60	65
Commercial	7 am – 10 pm	60	65	70	75	80
	10 pm – 7 am	55	60	65	70	75
Industrial	Anytime	70	75	80	85	90

Table 1. Std = Standard dB that may not exceed the cumulative period.

3.2 Construction Noise

Ordinance:

12.08.440 Construction Noise

Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited (See Table 2 and 3).

A. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 7:00 p.m.	75 dBA	80 dBA	85 dBA

Table 2. Std = Standard dB that may not exceed.

B. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 7:00 p.m.	60 dBA	65 dBA	70 dBA

Table 3. Std = Standard dB that may not exceed.

3.3 Community Noise

Ordinance:

12.08.530 Residential air conditioning or refrigeration equipment

Operating or permitting the operation of any air conditioning or refrigeration equipment in such a manner as to exceed any of the following sound levels is prohibited (See Table 4).

Measuring Location	Units Installed on or after January 1, 1980, dBA
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall.	55
Center of neighboring patio, 5 feet above level, no closer than 3 feet from any wall.	50
Outside the neighboring living area window nearest the equipment location, not more than 3 feet from the window opening, but at least 3 feet from any other surface.	50

Table 4. dBA levels not to be exceeded on the neighboring property.

Findings:

The subject site is zoned for residential use and is bordered by West Avenue C 8 to the north, 227th Street W to the east, undeveloped open space, and a residence to the south, and 230th Street W to the west. The immediate southern vacant land was zoned for irrigated farm. The rest of the surrounding lands were zoned for residential and commercial to the south and irrigated farm to the east and west.

Per the applicant, the project site

a) is owned by the onsite resident.
b) is relatively flat; therefore, no substantial grading, import, or export of fill would be required.
c) would consist of constructing solar modules, battery storage, underground electrical conductors, access roads, and fencing.
d) would install approximately 14,000 solar modules manufactured off-site and delivered by truck.
e) modules would be mounted on a steel racking system and anchored with steel piers 8 to 10 feet below ground.
f) battery storage would be comprised in four banks at the southwest corner of the solar panel array. Each bank would be the size of shipping container.
g) access would be provided via a new driveway constructed from 230th Street W. Access roads would encircle the whole array and bisect the site in a west-east orientation.
h) would be enclosed with a six-foot chain link fence topped with one-foot barbed wire.
i) construction to be completed in seven months with activities that include demolition; site preparation (vegetation clearing); grading; paving; system installation, testing and commissioning; and cleanup.

j) operation would be unmanned and operate year-round. No employees would report to the project site daily.
k) operations and maintenance activities, during project operations, include but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, battery storage system and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

On December 28, 2023, noise levels were measured using a sound level meter (Larson Davis Sound Advisor 831C) set to A-weighting (dBA) on 230 Street W shoulder approximately 50 feet north of 49560 230th St W, the project site owner single-family residence, to determine background noise levels. Measuring background noise assists in determining allowable construction or operational noise levels. If background noise exceeds some or all standards, then the background levels become the new standard.

As shown in Table 5 below, the exterior background noise level results exceeded the residential L1.7 and L0 as well as the commercial L0 noise standard. These exceedances were caused by cars/trucks driving on 230th St W. As a result, the L1.7 and L0 background noise level become the exterior noise standards (see highlighted noise level).

Based on the above findings and the noise TECHNICAL MEMORANDUM submitted by the applicant consultant, Kimley-Horn, the subject site construction and operation activities would not have significant noise impact.

Exterior Noise Standards, dBA											
Area Background	Duration	Std # 1 = L50		Std # 2 = L25		Std # 3 = L8.3		Std # 4 = L1.7		Std # 5 = L0	
		30min/hr	Result	15min/hr	Result	5 min/hr	Result	1 min/hr	Result	At no time	Result
Residential	1:47 p.m. – 2:47 p.m.	50	38.5	55	41.7	60	46.3	65	65.9	70	83.1
Commercial	1:47 p.m. – 2:47 p.m.	60	38.5	65	41.7	70	46.3	75	65.9	80	83.1

Table 5. Std = Standard dBA that may not exceed the cumulative period.

3.4 Recommendations

3.4.1 Exterior Noise

Operational noise from the subject site needs to be determined and mitigation measures applied as needed prior to permitting the construction.

Be advised that if the activities listed below or additional activities that may create a noise disturbance occur in the future, care must be exercised to refrain from or minimize

such a noise disturbance so as not to impact the nearest residential properties.

1. Vehicle and equipment start-up and idling.
2. Loading/unloading.
3. Alarms.
4. public address (PA) system.
5. solar panels and equipment washing and maintenance.

3.4.2 Construction Noise

Construction noise needs to be determined and addressed. Noise mitigation measures may need to be applied to reduce construction noise and to comply with Title 12, 12.08.440 – Construction Noise. Noise mitigation strategies may include but are not limited to:

1. All construction equipment shall be equipped with the manufacturers' recommended noise muffling devices, such as mufflers and engine covers. These devices shall be kept in good working condition throughout the construction process.
2. Installation of a temporary sound barrier at the property lines of the proposed project site to mitigate noise impacts on all surrounding properties.
3. All construction equipment shall be properly maintained and tuned to minimize noise emissions.
4. Stationary noise sources (e.g., generators and compressors) shall be located as far from residential receptor locations as is feasible.

3.4.3 Air Quality Recommendation

During grading or excavation activities if applicable, application of dust control measures to minimize fugitive dust is recommended. Fugitive dust

can result in worker and public exposure to fungal spores such as Coccidioides immitis, which can cause Coccidioidomycosis (Valley Fever). Adhere to applicable Air Quality Management District regulations.

For questions regarding above comments, please contact Yonas Taye of Public Health, Environmental Hygiene Program at (626) 430-5201 or ytaye@ph.lacounty.gov.

If you have any other questions or require additional information, please contact Veronica Aranda of Public Health, Planning & Land Use Liaison at (626) 430-5201 or varanda@ph.lacounty.gov.

CC:va
DPH_CLEARED_APN-3278-025-001_RPPL2023005137_05.15.2024.

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
PROJECT NO. PRJ2023-002405 / CUP NO. RPPL202300513 / ENV NO. RPPL2023005138

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
1	**MM AQ-1: Minimize Exposure to Potential Valley Fever-Containing Dust.** Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan (VFMP) and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction: • An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever. • Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction. • Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.	A. Submit a Dust Control Plan to AVAQMD that addresses grading and ground disturbance, construction scheduling, soil stockpiles, water application, soil binding, monitoring, valley fever, and high wind. Provide the County with approved copy of the Dust Control Plan. B. Comply with Dust control Plan and measures while monitoring and keeping records of this mitigation measure. Present records to AVAQMD and the County upon request. C. Provide Valley Fever information and training on personal protective equipment to staff and onsite construction personnel, and	A. Prior to ground disturbance activities. Ground disturbance refers to any activities that may include clearing vegetation, grading, excavation, trenching, and drilling within the Project Site. B. During construction C&D. During construction	Permittee / Construction Manager	County of Los Angeles Department of Regional Planning (LACDRP) / AVAQMD

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	• Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators. • Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.	present records to AVAQMD and County upon request. D. Implement a Valley Fever Management Plan.			
2	**MM BIO-1: Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500-foot buffer (0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not required during Operation &Management activities.	A. Schedule vegetation removal outside of bird breeding season, if feasible B. Conduct a pre-construction nesting bird survey during the breeding season C. Retain a qualified biologist. D. Prepare report of nesting bird survey findings	A. Prior to vegetation removal, ground disturbance, construction, or demolition activities B, C, & D. Prior to the commencement of vegetation removal, ground disturbance, construction, demolition activities or site mobilization activities.	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.				
3	**MM BIO-2: Swainson's Hawk (SWHA).** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to	A, Conduct initial baseline monitoring and recording the event of Swainson's hawk nests and provide the log to the County upon request. B. Further monitoring and recording of the	A. Prior to ground disturbance and construction activities. B. Prior and during construction if active SWHA	Permittee	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. It construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.	SWHA nest shall continue as required by this mitigation measure. C. If SWHA nests are detected prior to or during construction, provide notes and records of nest monitoring upon request of the County.	nests are detected D. Prior and during construction		
4	**MM BIO-3: Worker Environmental Awareness Training**. A qualified biologist shall conduct a worker environmental awareness training (WEAT) program for all persons working on the Project prior to the onset of construction for construction, operation and maintenance, and decommissioning activities. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered shall be included in the training. Special-status species, including legal protection, penalties for violations, and Project specific protective measures shall also be discussed. Contact information for the qualified biologist and other useful wildlife-related contacts (e.g., CDFW, venomous snake humane relocation services, etc.) shall be included in the WEAT. Interpretation shall be provided for non- English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training shall be maintained at the worksite with the Project supervisor, and a handout containing this information shall be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective	A. Submit WEAT program to LACDRP upon request. B. Conduct an environmental education program for sensitive biological species that may be in the area C. Maintain copies of the training materials and handouts on-site.	A. Prior to the start of construction B & C. Prior to the start of construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	measures. The WEAT shall be sent to the County for review prior to implementation.				
5	**MM BIO-4: Trash Receptacles.** All trash and waste items generated by construction, operation and maintenance and decommissioning or crew activities shall be properly contained in a covered and locked trash receptacle and/or removed from the Project Site daily. All containers shall be wildlife-proof. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species.	Contain and remove trash and waste items generated by construction or crew activities	During construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP
6	**MM BIO-5: Common and Special-Status Wildlife Awareness.** All Project personnel shall visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on-site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during constructional phases of the Project (construction, O&M, and decommissioning), all excavated holes, ditches, or trenches greater than six (6) inches deep shall be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps shall be placed in excavations. After opening and before filling, such holes, ditches, and trenches shall be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) shall not contain monofilament netting. All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire	Visually check for animals in any materials and equipment stored on-site for one or more overnight periods; install security fencing per County Code standards	During construction activities, operation and maintenance , and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	shall be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.				
7	**MM BIO-6: Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist.. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.	A. Conduct burrowing owl surveys B. Stop work within listed buffers if burrowing owl individuals or sign is detected C. Report to County biologist of detection and to determine next steps	A. During survey season immediately prior to construction activities B & C. When burrowing owl individuals or sign are detected during construction or decommissioning.	Permittee/ Construction Manager	LACDRP, CDFW
8	**MM BIO-7: Desert Kit Fox.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be	A. Conduct desert kit fox surveys B. Prepare Desert Kit Fox Avoidance Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.		B. When occupied desert kit fox dens are detected during survey.		
9	**MM BIO-8: American Badger.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The	A. Conduct American badger surveys B. If determined that an active den cannot be avoided, prepare American Badger Eviction Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction B. Prior to construction C.	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).				
10	**MM BIO-9: Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities. If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented: • If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b). • Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or	A. Conduct protocol surveys B. Conduct nesting surveys if this species is detected foraging within 100 feet of the project site. C. Consult with CDFW for take authorization D. If floral resource will be removed or damaged, replace floral resource at a 1:1 ratio or as otherwise determined during any ITP application process. E. If any floral resource is found at the site, replant and manage the floral resources.	A, B & C. Prior to construction. D. Following completion of construction or as indicated by ITP. E. During operation and maintenance,	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.				
11	**MM BIO-10: Vegetation and Revegetation.** To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.	A. Use rubber-tired vehicles, where feasible B. Provide County with seed mixes	A. During construction activities B. Prior to application of seed mixes	Permittee/ Construction Manager	LACDRP
12	**MM BIO-11: Panel Positioning.** To minimize "lake effect" related to adverse impacts to bird species, the panels shall be positioned overnight where they last tracked the sun or pre-positioned toward the east to capture sunrise (i.e., panels shall be in a close to vertical position) and provide documentation to the County upon request.	Position panels in a close to vertical position and provide documentation to the County upon request.	During operation	Permittee/ Construction Manager	LACDRP
13	**MM CUL-1: Worker Environmental Awareness Program**. Prior to the start of ground disturbance, the Permittee shall hire a qualified archaeologist ("Project Archaeologist") to provide the construction crew with on-site training on the proper procedures to follow if cultural resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what such artifacts	A. Hire a qualified archaeologist to provide the WEAP for anticipated discovery of cultural resources B. Provide training and information to all individuals working on site	A & B. Prior to the start of ground disturbance activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	may look like when partially buried or wholly buried and then freshly exposed, a discussion of what prehistoric and historic-period archaeological deposits look like at the surface and when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and shall be provided to all individuals working on site.				
14	**MM CUL-2: Unanticipated Discovery of Cultural Resources.** In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the	A. Retain a Native American Monitor(s). See MM TCR-1 B. Contact Project Archaeologist should archaeological resources be discovered C. Notify Native American Monitor(s) if the resource is determined to be prehistoric D. Prepare a data recovery plan if archaeological resources are found and impacts cannot be avoided E. Submit documentation to the County and regional repository	A. Prior to construction B, C, D & E. During ground-disturbing activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).				
15	**MM CUL-3: Cultural Resources Monitoring.** The Project Archaeologist shall be onsite to monitor ground disturbing activities twice a week, or as otherwise determined by the lead agency in consultation with the consulting tribes referenced in MM TCR-1. Ground disturbing activities include clearing vegetation, grubbing, digging, pavement removal, grading, excavation, trenching, plowing, drilling, blasting, potholing/auguring, and stripping topsoil. The Project Archaeologist shall have the authority to increase or decrease the monitoring effort should the monitoring results indicate that a change is warranted. The Project Archaeologist shall consult with the Consulting Tribes (defined below) prior to increasing or decreasing the monitoring schedule. Monitoring requirements shall end once ground disturbing activities are complete.	A. Monitor ground disturbing activities twice a week B. Consult with Consulting Tribes to define monitoring schedule	A &B. During ground disturbing activities	Permittee/ Construction Manager	LACDRP
16	**MM CUL-4: Unanticipated Discovery of Paleontological Resources.** Prior to start of ground disturbance, the construction crew shall participate in on-site training on the proper procedures to follow if paleontological resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what paleontological resources may look like when partially buried or wholly buried and then freshly exposed, a discussion of what paleontological resources look like when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and should be provided to all individuals working on site. In the event that paleontological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and a qualified paleontologist who meets	A. Conduct a Worker Environmental Awareness Program for unanticipated discovery of paleontological resources B. Contact a qualified paleontologist who meets the Society of Vertebrate Paleontology guidelines C. If the find requires further evaluation and/or extraction, follow the fossil discovery protocols.	A. Prior to the start of ground disturbance activities B & C. During the ground-disturbing activities D. During ground disturbance activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	the Society of Vertebrate Paleontology guidelines shall be contacted immediately to evaluate the resource. If the find is large enough to warrant further evaluation and/or extraction, then the following fossil "discovery" protocol shall be followed: a) The paleontologist shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. b) The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study, or report. c) Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations. During ground disturbance activities, the Applicant shall submit a letter to the County for the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered.	D. Submit a letter to the County			
17	**MM CUL-5: Inadvertent Discovery of Human Remains.** If human remains or funerary objects are encountered during construction, all ground disturbance activities within 100 feet of the discovery shall be suspended and the construction manager shall immediately notify the County coroner pursuant to State Health and Safety Code §7050.5. This state code shall be enforced for the duration of the Project. If the human remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission (NAHC). The NAHC shall identify and immediately notify the Most Likely Descendant (MLD) of the deceased Native American. Within 48	A. Suspend all ground disturbance activities within 100 feet of a discovery if human remains or funerary objects are encountered. B. Notify County coroner C. Coroner to notify	A, B, and C. During construction activities	Permittee/ Construction Manager	LACDRP, MLD and/or Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	hours of being granted access to the site, the MLD shall complete the inspection of the site of the discovery and make recommendations to the Applicant/landowner for the treatment or disposition of the human remains and any associated funerary objects. All measures, as required by the County, shall be implemented under the supervision of the MLD and/or Tribal Monitor.	NAHC			
18	**MM TCR-1: Tribal Monitor.** Prior to the commencement of any ground disturbance activities, the Permittee shall retain a Tribal monitor(s) (Tribal Monitor) who is approved by the Fernandeno Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians) (the "Consulting Tribes") to provide tribal monitoring/consulting services alongside the Project Archaeologist in accordance with MM CUL-3. The Permittee shall submit a letter to the County of Los Angeles (County) to confirm the name and contact information of the Tribal Monitor(s) who is retained for the Project.	A. Retain Tribal Monitor(s) approved by FTBMI and YSMN B. Submit a letter to County to confirm name and contact information of the Tribal Monitor(s)	A & B. Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP, Tribal Monitors
19	**MM TCR-2: Tribal Cultural Resources Monitoring Plan.** Prior to the commencement of any ground disturbance activities, the Project Archaeologist, in consultation with the Consulting Tribes shall prepare and submit a Tribal Cultural Resources Monitoring and Treatment Plan (Monitoring and Treatment Plan) to the County for review. The Monitoring and Treatment Plan shall be approved by and the Consulting Tribes before those activities commence and the approved plan shall be submitted to the County. The Monitoring and Treatment Plan shall include methods for monitoring ground disturbance activities; procedures to follow when resources are discovered; protocol for identifying and evaluating tribal cultural resources; and shall incorporate measures to mitigate potential impacts to tribal cultural resources as provided in MM TCR-5, below.	Submit a Monitoring and Treatment Plan that is approved by the Consulting Tribes to the County for file record.	Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP
20	**MM TCR-3: Worker Environmental Awareness Program (WEAP) Training.** Prior to the commencement of any ground disturbance activities, all project construction managers and	A. Project Archaeologist and Tribal Monitor(s) to administer tribal	A. Prior to commencement of any ground	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	workers shall attend a tribal cultural resources awareness training. The Project Archaeologist and the Tribal Monitor shall administer the training to inform construction managers and workers about the types of resources that could be encountered; the procedures to follow if tribal cultural resources are discovered; and the potential penalties for failing to adhere to applicable laws and regulations. The procedures include work curtailment or redirection and immediate contact of the on-call archaeologist and, if appropriate, the FTBMI and SMBMI representative. Construction managers shall maintain a log to document all construction personnel who have completed the training. The log shall be provided to the County upon request within five business days. The training requirement should be stated on all construction plans. The Tribal representatives from the Consulting Tribes shall be allowed to attend and participate in the training. The WEAP required under this measure may be combined with the WEAP described in MM CUL-1.	cultural resources awareness training to all construction managers and workers. B. Log all construction personnel who have completed the training C. Provide log to County upon request within five business days	disturbance activities B&C. Prior to or during ground disturbance activities.		
21	**MM TCR-4: Tribal Monitoring.** Tribal monitor(s) shall be present onsite to monitor ground disturbing activities based on a schedule coordinated and agreed by the Consulting Tribes or established by the County. Tribal monitor(s) shall monitor ground disturbing activities when the Project Archaeologist is onsite in accordance with MM CUL-3. If the Project's scheduled activities require the Tribal Monitor to leave the Project Site for a period of time and return, confirmation shall be submitted to the Tribes by the Permittee, in writing, upon completion of each set of scheduled activities and five (5) days' notice (if possible) shall be submitted to the Tribes by the Permittee, in writing, prior to the start of each set of scheduled activities. The Project Archaeologist and Tribal Monitor shall complete a log documenting all ground disturbance activities monitored, the locations where those activities occurred, the types of soils involved, and any tribal cultural resources	A. Tribal monitor(s) to monitor ground disturbing activities when Project Archaeologist is onsite B. Confirmation of scheduled activities to the Tribes C. Complete log documenting ground disturbance activities, locations, types of soil, and resources encountered	During ground disturbing activities based on schedule coordinated and agreed by the Consulting Tribes	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	encountered. Monitoring shall end when ground disturbance activities are completed, or earlier if a Tribal Monitor has determined that the site has a low potential for impacting tribal cultural resources. Within 30 days after monitoring has ended, the Project Archaeologist and Tribal Monitor shall submit the logs to the County and the Permittee shall submit in writing to the Consulting Tribes that all scheduled activities are complete.	D. End monitoring when ground disturbance activities are completed E. Submit logs to the County and Consulting Tribes			
22	**MM TCR-5: Discovery of Tribal Cultural Resources.** If tribal cultural resources are encountered during construction, all ground disturbance activities within 100 feet of the find shall stop until the Tribal Monitor and the Project Archaeologist can evaluate the significance of the find and an area barrier shall be constructed. Construction activities may continue in other areas of the project site. The Project Archaeologist shall develop a research design including a plan to evaluate the resource for significance under CEQA criteria pursuant to Public Resources Code Section 21074. The archaeologist and the Consulting Tribes shall confer regarding the research design, evaluation efforts, and the resource's archaeological significance. If the discovery proves significant as determined by the Project Archaeologist and Consulting Tribes shall recommend appropriate measures subject to County's approval, to mitigate potential impacts to tribal cultural resources. Such measures may include but are not limited to resource avoidance, reburial, and preservation for educational purposes. Should it occur that avoidance, preservation in place, or on-site reburial are not an option for treatment, the Consulting Tribes and Project Archaeologist shall develop a curation agreement to be approved by the County and agreed between landowner and museum. The agreement may include legal and physical transfer of the collections and associated recordation, fees, and maintenance of the collection.	A. Stop ground disturbance activities within 100 feet of the find until the Tribal Monitor and Project Archaeologist can evaluate and construct a barrier B. Develop research design and plan to evaluate the resource C. Recommend appropriate measures to mitigate potential impacts to tribal cultural resources D. Develop curation agreement E. Prepare and submit a final monitoring report	A, B, C, D & E. During construction if tribal resources are encountered F. Within 90 days after monitoring has ended	Permittee/ Construction Manager	LACDRP Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	The Consulting Tribes shall coordinate with the Permittee to ensure that all measures approved by the County are implemented. Within 90 days after monitoring has ended, the Project Archaeologist shall prepare and submit a final monitoring report documenting all encountered tribal cultural resources, the significance of the resources, and the treatment of the resources to the tribes for review and comment. An approved final report shall be submitted to the California Native American Heritage Commission, local CHRIS Information Center, the County, and Consulting Tribes.	F. Submit final report to California Natie American Heritage Commission, local CHRIS Information Center, County, and Consulting Tribes			

LA COUNTY PLANNING

CONDITIONAL USE PERMIT STATEMENT OF FINDINGS

Pursuant to County Code Section 22.158.050 (Findings and Decision), the applicant shall substantiate the following:

(Please see Guidelines for Writing Your Conditional Use Permit Findings Statement. Do not repeat the statement or provide Yes/No responses. If necessary, attach additional pages.)

B.1 The proposed use will be consistent with the adopted General Plan for the area.
Please refer to our narrative submittal dated July 26, 2023 for complete reply to each of the questions contained herein.

B.2 The requested use at the location proposed will not: a. Adversely affect the health, peace, comfort, or welfare of persons residing or working in the surrounding area; b. Be materially detrimental to the use, enjoyment, or valuation of property of other persons located in the vicinity of the site; and c. Jeopardize, endanger, or otherwise constitute a menace to the public health, safety, or general welfare.
Please refer to our narrative submittal dated July 26, 2023 for complete reply to each of the questions contained herein.

B.3 The proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping, and other development features prescribed in this Title 22, or as is otherwise required in order to integrate said use with the uses in the surrounding area.
Please refer to our narrative submittal dated July 26, 2023 for complete reply to each of the questions contained herein.

B.4 The proposed site is adequately served: a. By highways or streets of sufficient width, and improved as necessary to carry the kind and quantity of traffic such use would generate; and b. By other public or private service facilities as are required.
Please refer to our narrative submittal dated July 26, 2023 for complete reply to each of the questions contained herein.

Renewable Properties, LLC
879 Sanchez Street
San Francisco, CA 94114
www.renewprop.com

July 26, 2023

Soyeon Choi
Los Angeles Department of Regional Planning
335A East Avenue K-6
Lancaster, CA 93535

RE: 230th Street Solar + BESS – Application for Conditional Use Permit

Dear Soyeon:

On behalf of RPCA Solar 12, LLC, we submit this letter as a narrative reply to Los Angeles County's "Environmental Checklist (checklist)." Each question from the checklist is repeated below followed by our response in *italics.*

B.1 The proposed use will be consistent with the adopted General Plan for the area.

The subject parcel is within the Antelope Valley West General Plan Area land use designation of "RL10 (Rural Land 10)." Additionally, per the County Rural Preservation Strategy Map, the parcel is located within the "Rural Preserve Area." The proposed project / use is considered a renewable energy production facility. According to the General Plan, renewable energy production facilities are, "…allowed in Rural Land designations without a Plan Amendment" (LU-12, Antelope Valley Area Plan). In other words, the proposed project is consistent with the goals and objectives of the RL10 District, and is an allowed use.

*As a condition for developing a renewable energy production facility in the Rural Preserve Area, applications for such facilities must be consistent with the relevant Goals and Policies of the Area Plan, especially **Goal COS 10**, **Goal COS 13** and **Goal COS 14** and related each Goal's related policies. These Goals along with an explanation of Project conformance and consistency are further described below:*

> **Goal Cos 10:** Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.
>
> *The proposed project is a renewable energy generating facility and directly responds to this goal.*
>
> **Policy COS 10.1:** Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed.
>
> *PV modules are not at risk of releasing toxins or chemicals to the environment. The main components of standard PV modules are silicon-based semiconductors made of crystalline silicon or thin-film materials. These materials are considered safe and stable for long-term use in solar panels.*

Moreover, PV modules do not involve any combustion or chemical reactions during electricity generation, unlike conventional power sources like fossil fuels or nuclear power plants, which can produce harmful byproducts and emissions. The energy conversion process in PV modules is purely physical, relying on the photovoltaic effect to generate electricity when sunlight interacts with the semiconductor material.

Due to these factors, solar panels are considered environmentally friendly and a clean energy source.

Policy COS 10.2: Ensure that all individual renewable energy systems and all utility-scale renewable energy production facilities do not interfere with commercial and military flight operations or communication facilities. Consult with Edwards Air Force Base and U.S. Air Force Plant 42 on all proposed renewable energy projects that require discretionary approval.

The project received a Determination of No Hazard from the FAA on February 15, 2023. The aeronautical study revealed that the proposed structures associated with the project would not exceed obstruction standards and would not be a hazard to air navigation.

Policy COS 10.3: Encourage the safe and orderly development of biomass conversion facilities as an alternative to burning agricultural wastes.

This Policy is inapplicable to this project.

Policy COS 10.4: Promote methane recapture at landfills for purpose of generating energy and reducing fugitive greenhouse gas emissions.

This Policy is inapplicable to this project.

Policy COS 10.5: Encourage the development of emerging energy technologies, such as “solar roads.”

This Policy is inapplicable to this project.

Policy COS 10.6: Encourage the development of Conversion Technologies such as anaerobic digestion and gasification for converting post recycled residual waste into renewable fuels and energy.

The proposed project is a combined solar renewable energy generating and battery energy storage project that is intended to reduce reliance on fossil fuels and improve grid reliability.

Goal COS 13: Utility-scale energy production facilities for offsite use that reduce consumption of nonrenewable resources while minimizing potential impacts on natural resources and existing communities.

The proposed project is a renewable energy generating facility and directly responds to this goal.

Policy COS 13.1: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.

The project site is located more than a mile east of the community of Neenach. The proposed project area is currently undeveloped open space and there are no residences (aside from the property owner) within 500-feet of the proposed project fence line. Solar PV projects do not generate excessive noise, and the Project will comply with the County thresholds and requirements defined in the noise ordinance.

Policy COS 13.2: Restrict development of utility-scale wind energy production facilities within the vicinity of Edwards Air Force Base to limit interference with military operations.

The project site is located more than 30-miles west of Edwards Air Force Base and will not adversely impact the safe daily operations at the base.

Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.

Assuming the Conditional Use Permit is approved, the project will prepare and submit a decommissioning plan and financial guarantee at the time the building permit application is made.

Policy COS 13.4: Promote the use of recycled water in utility-scale renewable energy production facilities to limit impacts on the available fresh water supply.

In an effort to conserve water the project will seek a variance to landscaping requirements. Panel washing as part of annual maintenance will utilize recycled water to the extent feasible.

Policy COS 13.5: Where development of utility-scale renewable energy production facilities cannot avoid sensitive biotic communities, require open space dedication within Significant Ecological Areas as a mitigation measure.

No sensitive biotic communities were identified during the biological site investigation.

Policy COS 13.6: Ensure that all utility-scale renewable energy production facilities, such as solar facilities, do not create land use conflicts with adjacent agricultural lands or existing residential areas in the vicinity. Require buffering and appropriate development standards to minimize potential conflicts.

The neighboring parcels and surrounding land uses mostly consist of rural residences and

undeveloped open space. There are also several pre-existing large scale solar projects in the vicinity of the project. As such, the proposed project will not conflict with the dominant surrounding uses.

Policy COS 13.7: Limit the aesthetic impacts of utility-scale renewable energy production facilities to preserve rural character.

Several utility-scale solar PV projects are located in close proximity to the project. The proposed project would be consistent with the general form, line, color, and texture of these pre-existing developments.

Policy COS 13.8: Coordinate with other jurisdictions to plan for utility-scale renewable energy production facilities in order to minimize impacts to sensitive biotic communities and existing residential areas.

This Policy is inapplicable to this project.

Goal COS 14: Energy infrastructure that is sensitive to the scenic qualities of the Antelope Valley and minimizes potential environmental impacts.
Policy COS 14.1: Require that new transmission lines be place underground whenever physically feasible.

This Policy is inapplicable to this project.

Policy COS 14.2: If new transmission lines cannot feasibly be placed underground due to physical constraints, require that they be collocated with existing transmission lines, or along existing transmission corridors, whenever physically feasible.

This Policy is inapplicable to this project.

Policy COS 14.3: If new transmission lines cannot be feasibly be placed underground or feasibly collocated with existing transmission lines or along existing transmission corridors due to physical constraints, direct new transmission lines to locations where environmental and visual impacts will be minimized.

This Policy is inapplicable to this project.

Policy COS 14.4: Discourage the placement of new transmission lines on undisturbed lands containing sensitive biotic communities.

This Policy is inapplicable to this project.

Policy COS 14.5: Discourage the placement of new transmission lines through existing communities or through properties with existing residential uses.

This Policy is inapplicable to this project.

Policy COS 14.6: Review all proposed transmission line projects for conformity with the Goals and Policies of the Area Plan, including those listed above. When the California Public Utilities Commission is the decision-making authority for these projects, provide comments regarding conformity with the Goals and Policies of the Area Plan.

This Policy is inapplicable to this project.

Policy COS 14.7: Require that electrical power lines in new residential developments be placed underground

This Policy is inapplicable to this project.

B.2 The requested use at the location proposed will not:

a. Adversely affect the health, peace, comfort, or welfare of persons residing or working in the surrounding area;

Photovoltaic (PV) technologies and solar inverters are not known to pose any significant health dangers to their neighbors. Solar PV systems are virtually silent and generate no air or water pollution during operation. Concern over solar fire hazards should be limited because only a small portion of materials in the panels are flammable, and those components cannot self-support a significant fire. Furthermore, the closest nearby residence is located more than 500-feet south of the proposed project boundary. At this distance any noise generated as a result of the inverters, transformers, or air HVAC system associated with the battery storage facility would attenuate to an imperceptible volume.
Based on the above, the project will not result in significant adverse impacts to health, peace, comfort or welfare of persons residing in the surrounding area.

b. Be materially detrimental to the use, enjoyment, or valuation of property of other persons located in the vicinity of the site; and

Many comparative analysis have been prepared to examine whether there is any impact on the value of adjacent properties due to their proximity to a solar farm. Such studies have found, when comparing factors such as sale price and conditions associated with purchase and sale agreement, that there is no measurable and consistent difference in property values adjacent to solar farms compared to similar properties locationally removed from solar projects.

c. Jeopardize, endanger, or otherwise constitute a menace to the public health, safety, or general welfare.

Solar projects make for quiet, safe, and low maintenance neighbors. The public health and safety benefits of installing these facilities (i.e., reduction in greenhouse gases and improving the reliability of the grid) are significant; and far outweigh any negative impacts.

B.3 The proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping, and other development features prescribed in this Title 22, or as is otherwise required in order to integrate said use with the uses in the surrounding area.

The proposed parcel is adequate to accommodate the proposed project. The project will comply with all dimensional controls such as setbacks, lot coverage, and access. The applicant does request a variance to the landscaping standard. Due to the pre-existing solar projects in the vicinity, the lack of a stable source of water, and the lack of development in the area there is limited justification for a vegetative buffer. The Project will not result in changes to the existing visual character or quality of the current landscape.

B.4 The proposed site is adequately served:

a. By highways or streets of sufficient width, and improved as necessary to carry the kind and quantity of traffic such use would generate; and

a. 230th Street would not require upgrade or improvements to facilitate access for construction or operation vehicles. The project requires a relatively small number of pieces of equipment for most construction activities. Maximum weight of construction equipment is likely to have a gross vehicle weight (GVW) of around 36,000 lbs.

b. Construction activities are expected to be completed in 6 to 8 months. Construction is planned to occur during daylight hours, Monday through Friday, and will be conducted consistent with San Bernadino County regulations regarding hours of construction. The number of workers per day will vary according to construction stage, but approximately 15 to 20 workers may be expected during non-peak activities. Approximately, up to 50 workers could be expected during peak construction activities. Peak activities are expected to last no more than 45 days. Workers will park their vehicles within the solar facility site boundary thereby ensuring minimal impact to existing traffic flow along 230th Street. There would be an estimated 2-3 round trips per day during non-peak construction (i.e., delivery of materials and equipment to the Project site); and up to 10-12 round trips per day would be required during peak construction activities. Construction and operation of the proposed project would not require substantial modifications to the County's existing roadway system.

RP's construction contractor will implement appropriate traffic controls in accordance with the California Vehicle Code and other state and local requirements.

Additionally, the following measures would be implemented:

- *Construction traffic will not block emergency equipment routes.*
- *Construction activities are designed to minimize work on, and use of, local streets.*

b. By other public or private service facilities as are required.
    a. *No other private service or facilities are required*

Please don't hesitate to reach out with any questions and/or comments. We look forward to continuing to work with you on this Project.

Sincerely,

RENEWABLE PROPERTIES



Stephanie Loucas
Chief Development Officer
415-710-3834

LA COUNTY PLANNING

CONDITIONAL USE PERMIT STATEMENT OF FINDINGS: UTILITY-SCALE GROUND-MOUNTED SOLAR FACILITY

Pursuant to County Code Sections 22.158.050 (Findings and Decision) and 22.140.510 (Renewable Energy), the applicant shall substantiate the following:

(Do not repeat the statement or provide Yes/No responses. If necessary, attach additional pages.)

E.b.i. That the proposed vegetation required along the facility perimeter fencing sufficiently provides a buffer from adjacent residential and agricultural uses through variable placement and muting of frontage or other sensitive viewsheds so as to provide a natural visual transition between the project and its surroundings.
See attached.
E.b.ii. That the proposed vegetation sufficiently provides ground cover to the satisfaction of a County biologist.
See attached.
E.b.iii. That the proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.
See attached.
E.a.i. That the project complies with all applicable development standards set forth in County Code Section 22.140.510.E.3.
See attached.

E.a.ii. That the project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers.

See attached.

E.5.a.iii. That the project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork.

See attached.

B.1. That the proposed use will be consistent with the adopted General Plan for the area.

See attached.

B.2. That the requested use at the location will not:

a. Adversely affect the health, peace, comfort, or welfare of persons residing or working in the surrounding area;
b. Be materially detrimental to the use, enjoyment, or valuation of property of other persons located in the vicinity of the site; and
c. Jeopardize, endanger, or otherwise constitute a menace to the public health, safety or general welfare.

See attached.

B.3. That the proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping, and other development features prescribed in this Title 22, or as is otherwise required in order to integrate said use with the uses in the surrounding area.

See attached.

B.4. That the proposed site is adequately served: a. By highways or streets of sufficient width and improved as necessary to carry the kind and quantity of traffic such use would generate; and b. By other public or private service facilities as are required.
See attached.

E.b.i. That the proposed vegetation required along the facility perimeter fencing sufficiently provides a buffer from adjacent residential and agricultural uses through variable placement and muting of frontage or other sensitive viewsheds so as to provide a natural visual transition between the project and its surroundings.

The project proposes a 10-foot landscape buffer between the fence and the access road on the western and northern boundaries of the project site. The landscape buffer includes various shrubs like the big sagebrush (*Artemisia Tridentata),* brittlebush (*Encelia Farinosa),* California buckwheat (*Eriogonum Fasciculatum),* California matchweed (*Gutierezzia Californica),* Tecate cypress (*Hesperocyparis forbesii),* and California cudweed (*Pseudognaphalium Californicum)*. The shrubs have low or very low WUCOLs. A Conceptual Landscape Plan will be provided as part of the CUP application for review. The eastern and southern boundaries of the project site would be screened from the surrounding vicinity by the perimeter fence.

E.b.ii. That the proposed vegetation sufficiently provides ground cover to the satisfaction of a County biologist.

The project would provide vegetation only in the landscape buffer fronting 230th Street West and West Avenue C8. Sufficient ground cover would not be necessary across the remainder of the project site as the solar arrays would require vertical clearance such that vegetation would not grow above the arrays.

E.b.iii. That the proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.

The project would provide a landscape buffer but would not provide ground cover vegetation that would grow above the arrays.

E.a.i. That the project complies with all applicable development standards set forth in Section 22.140.150.E.3.

Section 22.140.150.E.3 applies to Zones C-RU (Rural Commercial) and MXD-RU (Rural Mixed Use Development Zone) for cargo shipping containers on a lot for storage purposes. The project is located on land zoned A-2-2 (Heavy Agricultural) and would not store cargo shipping containers on site. Therefore, development standards set forth in Section 22.140.150.E.3 would not apply.

E.a.ii. That the project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers.

The project site is located on a relatively flat site that is comprised of undeveloped open space except for a rural residence/single-family home on the southwest portion of the site. The project would add limited new impervious surface area and would be designed such that there would be no increased or decreased baseline stormwater flow on- or off-site. Stormwater would be managed on-site and would meet all applicable water quality and waste discharge requirements.

The project would implement mitigation measures to minimize significant impacts to the environment, including pre-construction surveys for nesting birds, specificities regarding trash receptacles, wildlife inspection during construction activities, and worker environmental awareness training to the extent feasible, as recommended by and further described in the Biological Resources Assessment prepared for the project by Kleinfelder. The project would interconnect to Southern California Edison's pre-existing electrical distribution system located adjacent from the site. Therefore, no transmission lines or towers would be installed as part of the project.

E.5.a.iii. That the project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork.

The project site is relatively flat; therefore, no substantial grading, import, or export of fill would be required to accommodate the project. The project would be designed to limit grading to access roads and inverter pads. Clearing will be limited to mowing and not scraping or grubbing so as to preserve root structure and to maintain soil stabilization.

B.1. That the proposed use will be consistent with the adopted General Plan for the area.

The proposed parcel is comprised of undeveloped open space except for a rural residence/single-family home. The proposed parcel is within the Antelope Valley West General Plan Area land use designation of RL10 (Rural Land 10). Additionally, per the County Rural Preservation Strategy Map, the parcel is located within the "Rural Preserve Area." The proposed use would be consistent with the Rural Land designation, which allows for renewable energy production facilities. The proposed use would not conflict with the goals and policies of the County of Los Angeles General Plan or the Antelope Valley West General Plan.

B.2. That the requested use at the location will not:

a. Adversely affect the health, peace, comfort, or welfare of persons residing or working in the surrounding area;

The requested use is a solar facility that would be unmanned during operations except for periodic maintenance. Potential impacts to those residing or working in the surrounding area will be further analyzed in detailed technical analyses performed pursuant to the California Environmental Quality Act (CEQA) for the Project prior to the issuance of the Conditional Use Permit and building permits. Through the CEQA review process, mitigation measures will be developed as necessary to reduce any potential significant impacts to a less than significant level.

Photovoltaic (PV) technologies and solar inverters are not known to pose any significant health dangers to their neighbors. Solar PV systems are virtually silent and emit little air or water pollution during operation. Concern over solar fire hazards should be limited because only a small portion of materials in the panels are flammable, and those components cannot self-support a significant fire.

The site is relatively flat, and several large-scale solar projects exist in the vicinity of the project; therefore, the Project proposes a use that would be consistent with the general form, line, color, and texture (i.e., existing visual character) of the nearby uses. Additionally, the project is located more than one mile southwest of Lancaster Road, which is designated as a Class 2 locally scenic road by Los Angeles County. Given the low height of the Project (less than 20 feet tall), the project would not be visible from Lancaster Road. Lastly, upon decommissioning, the site would be available for redevelopment or any other passive or active land use allowed by the ordinance and preferred by the landowner. Therefore, the project is expected to conform with the dominant visual character of the surrounding general area and would not result in adverse impacts to existing visual quality.

Construction activities would result in a temporary increase in air and greenhouse gas (GHG) emissions and noise levels. However, the project would introduce an additional source of renewably generated energy and support the State and County's goals of reducing GHG emissions pursuant to Statewide policies and regulations. Regarding noise, the closest nearby residence is located more than 500 feet south of the proposed project boundary. At this distance any noise generated as a result of the inverters, transformers, or air HVAC system associated with the battery storage facility would attenuate to an imperceptible volume. The project would be required to comply with applicable standards and regulations

from the South Coast Air Quality Management District (SCAQMD) and the Los Angeles County Noise Control Ordinance.

Regarding traffic/transportation, during operations, the project would be unmanned, and no employees would report to the facility on a daily basis. Operations and maintenance personnel are expected to visit the site approximately six times a year for routine electrical maintenance, panel washing, and vegetation control. Such visits would be made via light duty pickup trucks and passenger vehicles. Project operations are not expected to result in a perceptible increase in traffic.

Based on the above, the project is not expected to result in significant adverse impacts to health, peace, comfort or welfare of persons residing in the surrounding area.

b. Be materially detrimental to the use, enjoyment, or valuation of property of other persons located in the vicinity of the site; and

Many comparative analyses have been prepared to examine whether there is any impact on the value of adjacent properties due to their proximity to a solar farm. Such studies have found, when comparing factors such as sale price and conditions associated with purchase and sale agreement, that there is no measurable and consistent difference in property values adjacent to solar farms compared to similar properties locationally removed from solar projects. Therefore, the project is not anticipated to result in significant impacts to persons in the surrounding area in a manner that would be materially detrimental to the use, enjoyment, or valuation of property of other persons located in the vicinity of the project site.

c. Jeopardize, endanger, or otherwise constitute a menace to the public health, safety or general welfare.

The proposed solar facility would not impact surrounding properties or persons in a manner that could jeopardize, endanger, or otherwise constitute a menace to the public health, safety, or general welfare. The proposed use would be consistent with the Heavy Agriculture (A-2-2) Zone, which allows for solar energy facilities in accordance with the Los Angeles County Zoning Code. Additionally, see B.2.a above. This determination is supported by the numerous operating solar projects have been constructed throughout the County and those in compliance with all applicable rules and regulations have not induced any impacts to public health, safety, or general welfare to the public.

B.3. That the proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping, and other development features prescribed in this Title 22, or as is otherwise required in order to integrate said use with the uses in the surrounding area.

The proposed parcel is adequate in size, shape and topography to accommodate the project. The project would comply with all dimensional controls such as setbacks, lot coverage, and access in accordance with Title 22, Chapter 140.510 of the Los Angeles County Code with one variance. In an effort to conserve water, the project will seek a variance to Subsection (E)(3)(c)(vii) of the Los Angeles County Renewable Energy Ordinance, which outlines landscape buffer requirements. Due to the pre-existing solar projects in the vicinity, the lack of a stable source of water, and the lack of development in the area, there is limited justification for a vegetative buffer.

B.4. That the proposed site is adequately served:

a. By highways or streets of sufficient width and improved as necessary to carry the kind and quantity of traffic such use would generate; and

230th Street would not require upgrade or improvements to facilitate access for construction or operation vehicles. The Project requires a relatively small number of pieces of equipment for most construction activities. Maximum weight of construction equipment is likely to have a gross vehicle weight of around 36,000 pounds.

Construction activities are expected to be completed in 6 to 9 months. Construction is planned to occur during daylight hours, Monday through Friday, and would be conducted consistent with Los Angeles County regulations regarding hours of construction. The number of workers per day would vary according to construction stage. Approximately, up to 50 workers could be expected during peak construction activities. Peak activities are expected to last no more than 45 days. Workers would park their vehicles within the solar facility site boundary thereby ensuring minimal impact to existing traffic flow along 230th Street. Construction and operation of the proposed Project would not require substantial modifications to the County's existing roadway system.

The Applicant's construction contractor would implement appropriate traffic controls in accordance with the California Vehicle Code and other State and local requirements. Additionally, measures would be implemented to ensure that construction traffic would not block emergency equipment routes, and that construction activities would be designed to minimize work on, and use of, local streets.

During operations, the project would be remotely operated and would anticipate operations and maintenance personnel to visit the site approximately six times per year. These operational trips would not result in a perceptible increase in traffic and given the low number of trips and light duty nature of maintenance equipment, no improvements would be needed for the highways and streets.

b. By other public or private service facilities as are required.

The project would not require extension of natural gas service or use of propane. The project would be adequately served by electricity during construction and would generate its own electricity during operations.

During project construction, non-potable water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. No new water infrastructure would be proposed during project construction. Project construction would generate temporary and limited wastewater as a result of on-site construction workers. The wastewater generated would be collected at the on-site mobile sanitation facilities and then transported to a nearby wastewater disposal facility. In the event that additional wastewater is generated from construction activities, wastewater would be stored in an onsite tank system and would be disposed of at an approved wastewater treatment facility.

For operations, the project would be unmanned and would not produce wastewater. Additionally, no potable water sources would be required for the project. Water would be trucked in from an offsite source for panel washing as necessary. Because solar panels are susceptible to damage and become inefficient with the use of poor-quality water, the purchase of high-quality water or the process of filtering water on-site may be necessary. Approximately 0.3 acre-feet (AF) of water per year would be utilized for washing panels and inverters and for irrigation to establish the landscape buffer. The landscaped areas will be watered by hand and truck or by a temporary irrigation system for a period of one year until establishment.

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

PROPOSED ENVIRONMENTAL DETERMINATION

DETERMINATION DATE:	July 10, 2025
PROJECT NUMBER:	PRJ2023-002405-(5)
PERMIT NUMBER(S):	CUP RPPL2023005137 Environmental Plan RPPL2023005138
SUPERVISORIAL DISTRICT:	5
PROJECT LOCATION:	49560 230th Street West, Lancaster
OWNER:	Amilcar and Debra Badano Trust
APPLICANT:	Renewable Properties, LLC
CASE PLANNER:	Soyeon Choi, Senior Regional Planner schoi@planning.lacounty.gov

Los Angeles County ("County") completed an Initial Study to evaluate the potential environmental impacts of the above-mentioned project. The Initial Study indicated that the project could potentially result in significant adverse effects on the environment, but those effects would be avoided or reduced to a less than significant level through project design modification and/or implementation of the recommended feasible mitigation measures. Therefore, the County proposes that a Mitigated Negative Declaration is the appropriate environmental documentation under the California Environmental Quality Act (CEQA). Accordingly, the Mitigation Monitoring & Reporting Program (MMRP) signed by the applicant is enclosed.

Attached: Initial Study – MMRP (See Exhibit F)

Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning

Project Title: 230th Street Solar Project/Project No. PRJ2023-002405 (CUP No. RPPL2023005137, Environmental Plan No. RPPL2023005138)

Lead agency name and address: Los Angeles County, 320 West Temple Street, Los Angeles, CA 90012

Contact Person and phone number: Soyeon Choi, Senior Planner, North County Development Services, (213) 974-6443

Project sponsor's name: RPCA Solar 12, LLC

Project location: Generally located at 49560 230th St W, Lancaster, CA 93536. See **Figure 1: Regional Vicinity Map** and **Figure 2: Local Vicinity Map.**
APN: 3278-025-001 *USGS Quad*: Neenach School

Gross Acreage: 31 acres

General Plan designation: N/A

Community-/Area-wide Plan designation: Antelope Valley Area Plan, Rural Land 10 (RL10)

Zoning: A-2-2 (Heavy Agricultural Zone)

Project Description: RPCA Solar 12, LLC (Applicant) proposes to construct and operate the 230th Street Solar Facility (Project) that consists of a single-axis tracker ground-mounted photovoltaic (PV) community solar panels and battery energy storage system (BESS) facility that would generate up to a total of up to 4.99 megawatts (MW) of alternating current (AC) in capacity. The U.S. Department of Energy defines "community solar" as any solar project or purchasing program, within a geographic area, in which the benefits flow to multiple customers such as individual businesses, nonprofits, and other groups. Community solar customers typically subscribe to—or in some cases own—a portion of the energy generated by a solar array, and receive an electric bill credit for electricity generated by their share of the community solar system.[1]

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W near the community of Lancaster. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, Balance of System Equipment, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

[1] U.S. Department of Energy, Community Solar Basics, https://www.energy.gov/eere/solar/community-solar-basics. Accessed July 25, 2024.

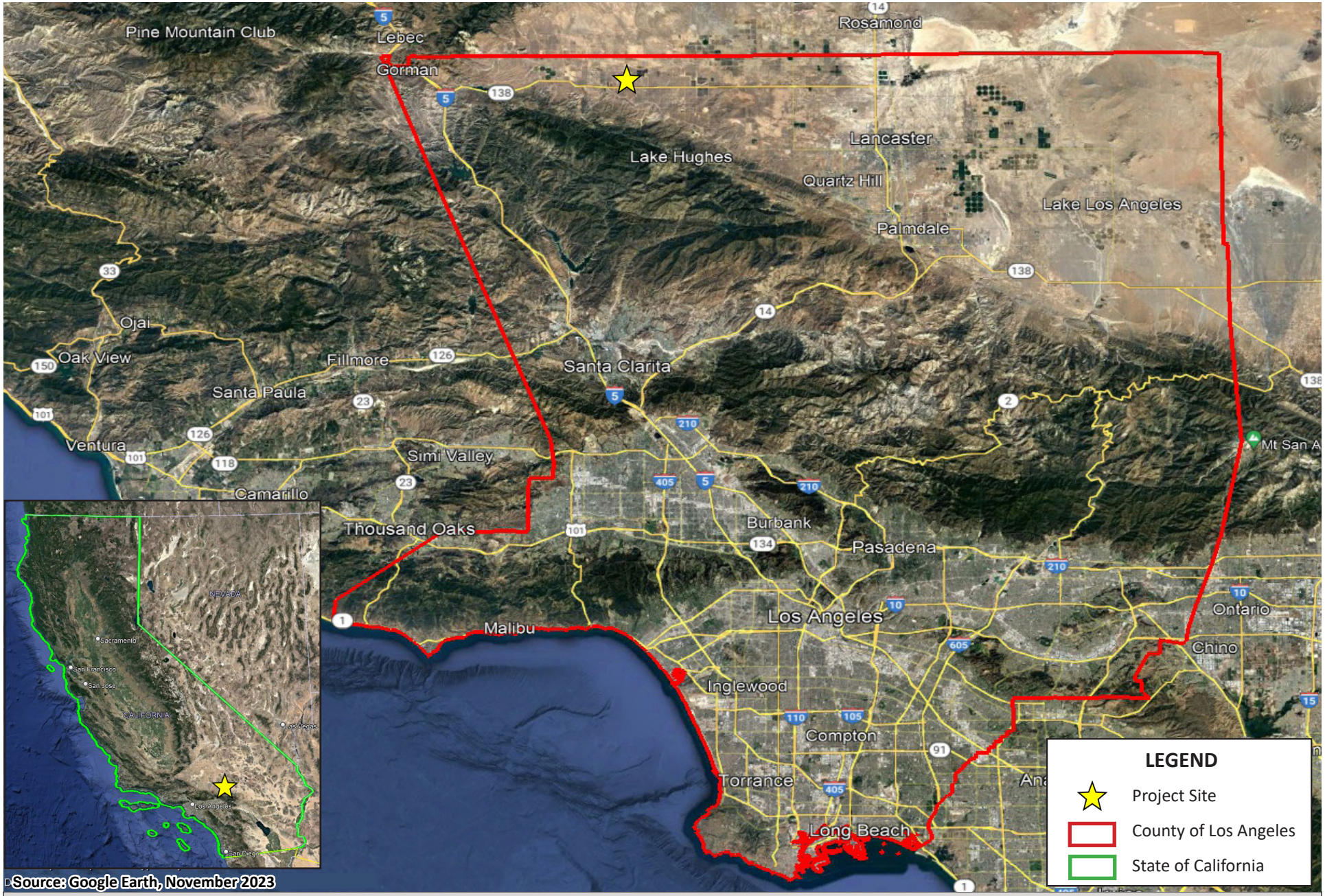


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

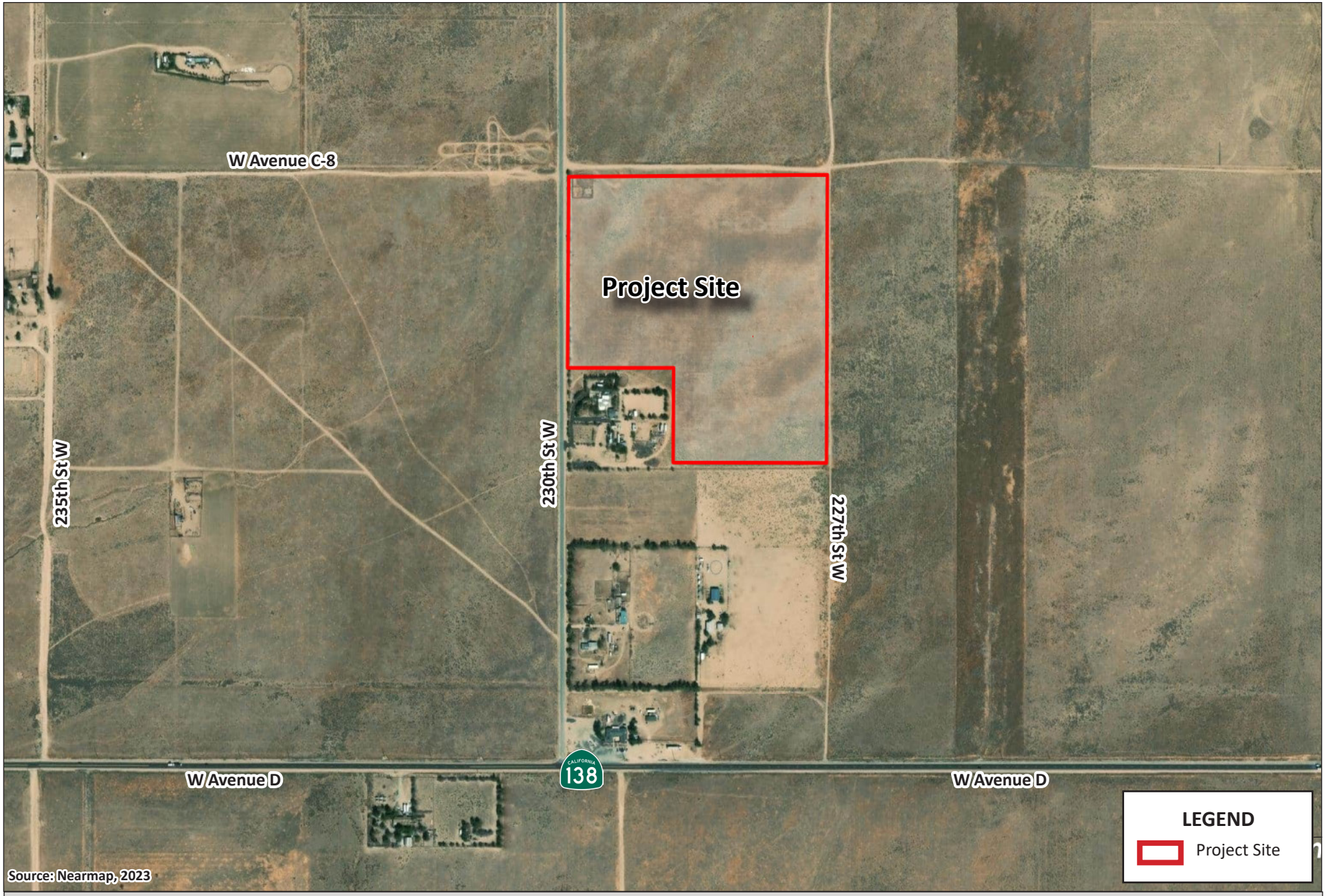


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

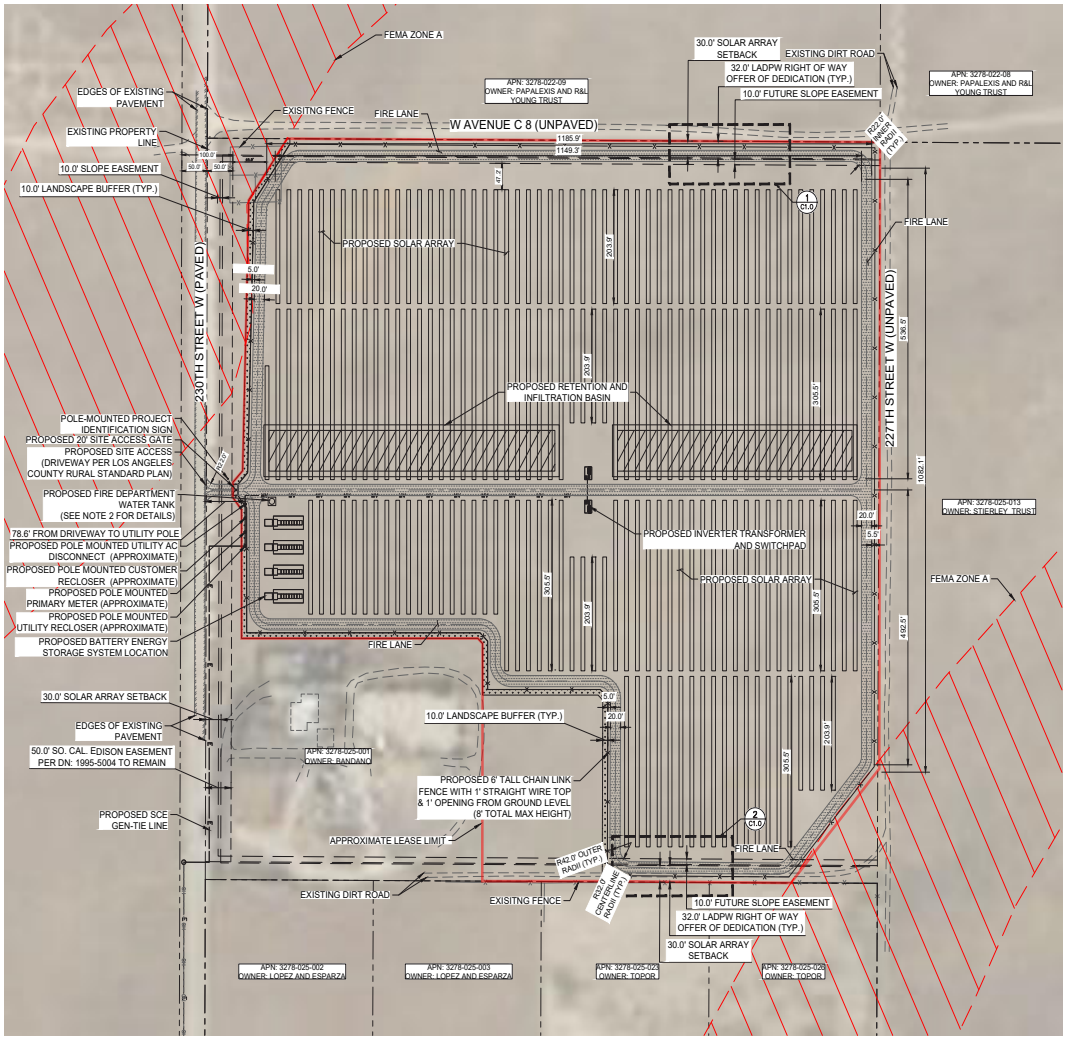
As depicted in **Figure 3: Conceptual Site Plan,** the Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be stored vertically at the end of the day. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance. The Project is designed to comply with the development standards of the Los Angeles County's Renewable Energy Ordinance.

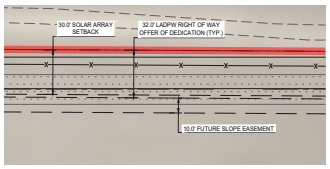
Pursuant to Section 22.140.510.E.3.c.v of the County's Renewable Energy Ordinance, setbacks from the property line shall be a minimum of 30 feet in Agricultural Zones. The Project would include a 30-foot setback from the from the solar array along W Avenue C 8 to the north, 230th Street W to the west, and the southern boundary of the Project Site. As such, the proposed fencing would comply with Section 22.140.510.E.3.c.ii of the County's Renewable Energy Ordinance.

The BESS would store electrical energy produced by the Project during the day and flexibly dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of approximately four battery banks located in the southwest corner of the PV array. Each battery bank would be approximately the size of a standard shipping container. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS will be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

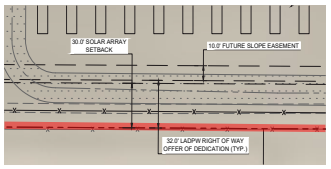
The Balance of System Equipment, including, but not limited to, inverters, AC combiner boxes, transformers, and/or medium voltage switchgear may be installed near the solar array within the Project's fence line. The Balance of System Equipment would be installed on H-Frames and concrete pads and in compliance with equipment manufacturer instructions. Low voltage conductors connecting the solar modules to the Balance of System Equipment would be run underground in conduit. The medium voltage conductors would mostly run underground in a similar fashion to low voltage wiring.

Site access would be provided via a new driveway constructed from 230th Street W and new on-site access roads. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The proposed access roads would encircle the whole solar array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. A minimum of 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.





NORTH ENLARGED PROPERTY BOUNDARY (1)
SCALE: 1"=30'



SOUTH ENLARGED PROPERTY BOUNDARY (2)
SCALE: 1"=30'

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	30	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y
TRACKER QTY.			
DC SYSTEM SIZE		6,633.90 kW	
# OF 81 MODULE TRACKER ROWS		95	
# OF 54 MODULE TRACKER ROWS		85	

LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF PAVEMENT PER PLAN
- PROPOSED PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 6' TALL CHAIN LINK FENCE WITH 1' STRAIGHT WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED SCE GEN-TIE LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD/ FIRE LANE
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT
- MATCHLINE
- PROPOSED RETENTION AND INFILTRATION BASIN

SITE INFORMATION

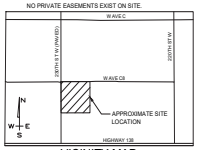
PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 06043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

SURVEY NOTE

DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED MAY 31, 2022. ISSUING OFFICE: 7978 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108. ISSUING AGENT: FRANK GREEN. TITLE ORDER NUMBER: 2200030890. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS: A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.
BENCHMARK:	ELEVATIONS SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BENCHMARK CONTROL POINT #5000 SET 60D NAIL CONTROL POINT. ELEVATION = 2823.09' NAVD 88

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. PROPOSED TRACKER HEIGHT IS 10 FEET, BUT WILL NOT EXCEED LA COUNTY'S HEIGHT MAXIMUM (25 FEET).
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.
9. DRAINAGE IMPROVEMENTS ARE NOT TO BE MAINTAINED BY THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT.
10. IN ADDITION TO THE REQUIREMENTS OF CHAPTER 22.80 (RURAL OUTDOOR LIGHTING DISTRICT), ANY OUTDOOR LIGHTING REQUIRED FOR SAFETY AND SECURITY PURPOSES SHALL BE SHIELDED AND DIRECTED DOWNWARD TO AVOID LIGHT TRESPASS AND SHALL INCLUDE:
    - 10.1. MOTION SENSORS FOR ENTRY-LIGHTING TO THE ON-SITE EQUIPMENT, STRUCTURES, AND BUILDINGS; AND
    - 10.2. LIGHT-SENSOR OR MOTION-SENSOR LIGHTING FOR THE MAIN FACILITY ACCESS GATE, OPERATIONS AND MAINTENANCE BUILDING DOORWAYS, AND ANY PARKING AREAS OF FACILITIES WITH OPERATION AND MAINTENANCE BUILDINGS.
11. NO PRIVATE EASEMENTS EXIST ON SITE.



VICINITY MAP
NTS



Source: Kimley-Horn and Associates, Inc., April 9, 2025

Figure 3: CONCEPTUAL SITE PLAN

230th Street Solar Project
Initial Study/Mitigated Negative Declaration

Kimley»Horn

Pursuant to Section 22.140.510.E.3.c.viii of the County's Renewable Energy Ordinance, a landscaped area at least 10 feet in depth shall be maintained between perimeter fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. The Project proposes a 10-foot landscape buffer between the fence and the access road along the western and southern boundaries of the Project Site. See **Figure 4: Conceptual Landscape Plan** for more details. As such, the proposed landscape buffer would be designed in compliance with the pertinent development standards regarding landscape buffers in the County's Renewable Energy Ordinance. The landscape buffer includes various shrubs like the big sagebrush (*Artemisia Tridentata*), brittlebush (*Encelia Farinosa*), California buckwheat (*Eriogonum Fasciculatum*), California matchweed (*Gutierezzia Californica*), Tecate cypress (*Hesperocyparis forbesii*), and California cudweed (*Pseudognaphalium Californicum*).

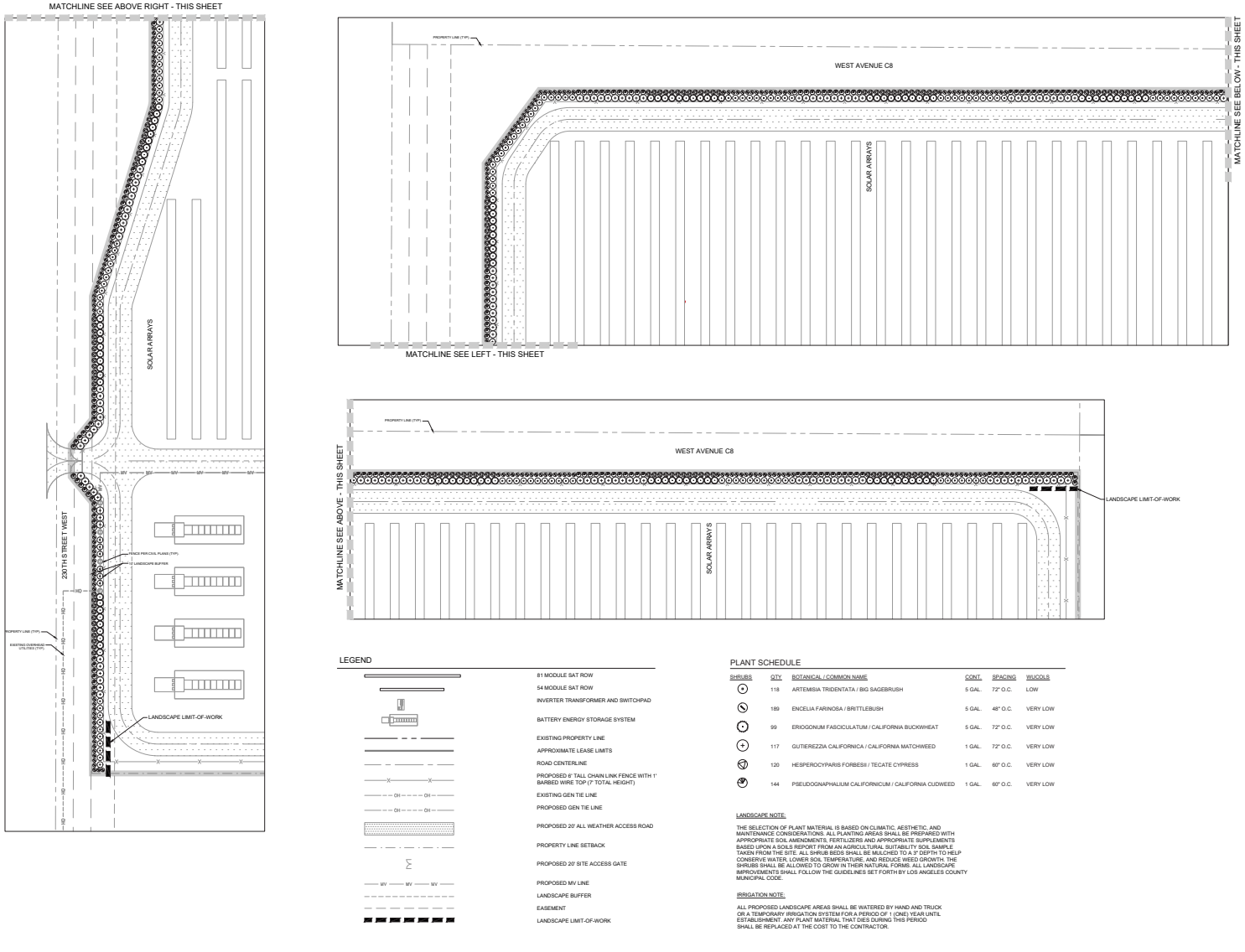
Pursuant to Section 22.140.510.E.3.c.ii of the County's Renewable Energy Ordinance, fencing shall be required around the perimeter of ground-mounted utility-scale solar energy facilities with a maximum height of eight feet. The Project would be enclosed in a six-foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). As such, the proposed fencing would comply with Section 22.140.510.E.3.c.ii of the County's Renewable Energy Ordinance. The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24-hour access for emergency responders.

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate on the southern side of the Project Site for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department (LACFD) standards. The water tank would have a LACFD supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades. To mitigate a potential increase in runoff flows, in compliance with the Los Angeles County Department of Public Works (LACDPW) Low Impact Development (LID) Standards Manual, the Project would construct an infiltration retention basin across the central width of the Project Site with an approximate volume of 42,336 cubic feet.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as June 2026.[2] Project construction activities generally fall into six main categories: (1) demolition, (2) site preparation (vegetation clearing), (3) grading, (4) paving, (5) system installation, and (6) testing, commissioning, and cleanup. The on-site construction workforce is expected to peak at approximately 50 individuals during the construction period, but approximately 15 to 20 workers may be expected during non-peak activities. Construction personnel will be divided between civil and electrical services.

[2] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.



Source: Kimley-Horn and Associates, Inc., October 26, 2023

Figure 4: CONCEPTUAL LANDSCAPE PLAN

230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

The eight-foot perimeter fence would be installed at the onset of construction to establish the outer boundaries of the Project Site. Site preparation would consist of clearing the existing vegetation in those areas on the Project Site where construction would be undertaken, grading, and establishing temporary staging area (including stockpile and laydown areas) as necessary. Selected vegetation would be removed to accommodate the construction of the array and its appurtenances, as well as to prevent shading on the array during operation. Any vegetation taller than six inches or expected to exceed six inches in height would be removed. Grass and groundcover may remain between rows and under the solar modules. All cleared vegetation would be chipped or spread on-site or disposed of responsibly.

A temporary staging area would be used as laydown area for construction equipment and materials. The staging area would also include a location for sanitary facilities and a construction trailer. The area containing the equipment and materials would be closed within a temporary construction fence with a lockable gate. Construction equipment such as tractors, backhoes, loaders, dozers, and graders may be needed to clear vegetation from the Project Site, and to grade roads and areas where structures will stand. All soils would be balanced on-site, and no import or export is expected.

Erosion and sediment control best management practices (BMPs) would be installed on the Project Site to prevent stormwater runoff. These BMPs would remain in place until construction is complete and until the Project Site is reseeded and stabilized in accordance with applicable code requirements. The construction contractor would be required to incorporate BMPs consistent with the County's ordinance and with guidelines provided in the California Stormwater Quality Association's Construction Best Management Practice Handbook, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and a Soil Erosion and Sedimentation Control Plan to reduce potential impacts related to construction of the Project.

Erection of the solar arrays would include support structures and associated electrical equipment and cabling. During this work, there would be multiple crews working on the Project Site with various equipment and vehicles, including special vehicles for transporting the modules and other equipment. As the solar arrays are installed, the electrical collection and communication systems would be installed.

During Project construction, approximately 13 acre-feet (AF) of non-potable water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. No new permanent water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction and removed upon operation.

Operations

The Project would have a useful life of approximately 35 years and would operate year-round. The Project would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel and inverter washing. It is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

All scheduled maintenance of the Project would occur from 8 a.m. to 5 p.m. Unscheduled maintenance visits would generally occur only if an emergency situation develops at the Project Site or its immediate surroundings that could endanger the functional capacity of the Project and/or endanger the general public health, safety, and welfare of the Project Site and its surroundings. In the event of a major disruption to the Project Site, a corrective maintenance visit would be scheduled as soon as possible with all reasonable effort to schedule any such maintenance activities between 8 a.m. and 5 p.m.

During Project O&M, it is anticipated that minimal water would be required for solar panel and inverter washing. Water consumption for washing panels and inverters is expected to be approximately 0.2 AF of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge, or inundation of water, and no chemicals or other materials are used. Per the LACFD request, a 10,000 gallon water storage tank will be kept on-site during the Project's operation.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste with a preference for recycling.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off-site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

Surrounding land uses and setting: The Project Site is in the Antelope Valley West Zoned District in northwest Los Angeles County and is approximately two miles east of the community of Neenach. The Project would occupy approximately 31 acres of a 39-acre parcel. The Project Site is comprised of fallow/ruderal land that was previously used for agricultural purposes and is devoid of structures except for a corral fence on the northwest corner. A rural residence/single-family home is located outside of the Project Site on the southwest corner fronting 230th Street W. Several large-scale solar projects are located further north, east, and south of the Project Site.

As shown in **Figure 2: Local Vicinity Map**, the Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west. 230th Street W is a public right-of-way, whereas W Avenue C 8 and 227th Street W are private streets. The nearest residence is located southwest of the Project Site. Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25-mile to the south. Local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W.

Land Use Designations and Zoning

The Project Site has a Land Use Designation of Rural Land 10 (RL10), as designated in the Antelope Valley Area Plan (AVAP). Intended uses on RL10 include single-family residences, equestrian and animal uses, and agricultural and related activities. The Project Site is also designated as Rural Preserve Area in the AVAP and Agricultural Resource Area in the County General Plan.

The Project Site is zoned Heavy Agricultural, Two Acres Minimum Required Lot Area (A-2-2). Surrounding parcels are also zoned A-2-2 and consist primarily of agricultural, rural residential, and undeveloped open

space uses. Pursuant to Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities is a permitted use with an approved CUP in the A-2 zone.[3]

Table 1: Project Site and Surrounding Uses within a 500-Foot Radius summarizes the on-site and surrounding land uses within 500 feet of the Project Site.

Table 1: Project Site and Surrounding Uses within 500-Foot Radius

Description	Existing Land Use	AVAP Land Use	Zoning
Project Site	Fallow land	Rural Land 10 (RL10)	Heavy Agriculture Zone (A-2-2)
North	Vacant land	Rural Land 10 (RL 10)	
South	Undeveloped open space, residential	Rural Land 10 (RL10)	Heavy Agriculture Zone (A-2-2)
East	Vacant land	Rural Land (RL10)	Heavy Agriculture Zone (A-2-2)
West	Vacant land	Rural Land (RL10)	Heavy Agriculture Zone (A-2-2)
SOURCE: Los Angeles County Department of Regional Planning, GIS-NET Public.			

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code § 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On January 22, 2024, the County mailed notification pursuant to Assembly Bill (AB) 52 to the following tribes: Fernandeno Tataviam Band of Mission Indians, Gabrieleno Tongva Indians of California, and the San Manuel Band of Mission Indians. See Section 18, *Tribal Cultural Resources,* for further details.

Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

Public Agency	*Approval Required*
Los Angeles County Department of Regional Planning	Building or other related ministerial permits
Antelope Valley Air Quality Management District	Dust Control Management Plan

Major projects in the area: None

[3] Los Angeles County, Los Angeles County Code of Ordinances, Table 22.16.030-B Principal Use Regulations for Agricultural, Open Space, Resort and Recreation, and Watershed Zones, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO_DIV3ZO_CH22.16AGOPSPRERE WAZO_22.16.030LAUSREZOW. Accessed January 22, 2024.

Reviewing Agencies:

Responsible Agencies

- ☒ None
- ☐ Regional Water Quality Control Board:
  - ☐ Los Angeles Region
  - ☐ Lahontan Region
- ☐ Coastal Commission
- ☐ Army Corps of Engineers
- ☐ LAFCO

Special Reviewing Agencies

- ☒ None
- ☐ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☐ National Forest
- ☐ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mountains Area
- ☐ Rowland Water District

Regional Significance

- ☒ None
- ☐ SCAG Criteria
- ☐ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area
- ☐

Trustee Agencies

- ☒ None
- ☐ State Dept. of Fish and Wildlife
- ☐ State Dept. of Parks and Recreation
- ☐ State Lands Commission
- ☐ University of California (Natural Land and Water Reserves System)

County Reviewing Agencies

- ☒ DPW:
- ☒ Fire Department
  - -Forestry, Environmental Division
  - -Planning Division
  - - Land Development Unit
  - - Health Hazmat
- ☒ Sanitation District
- ☒ Public Health/Environmental Health Division: Land Use Program (OWTS), Drinking Water Program (Private Wells), Toxics Epidemiology Program (Noise)
- ☒ Sheriff Department
- ☐ Parks and Recreation
- ☐ Subdivision Committee

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture/Forestry	☐ Hazards/Hazardous Materials	☐ Recreation
☒ Air Quality	☐ Hydrology/Water Quality	☐ Transportation
☒ Biological Resources	☐ Land Use/Planning	☒ Tribal Cultural Resources
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities/Services
☐ Energy	☐ Noise	☐ Wildfire
☐ Geology/Soils	☐ Population/Housing	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Department.)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature (Prepared by) Date

_____ _____

Signature (Approved by) Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Department cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) The explanation of each topic should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significance. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

1. AESTHETICS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape to the public benefit. The AVAP defines scenic resources as scenic drives, water features, significant ridgelines, buttes, and Hillside Management Areas and establishes Goal COS 5, which aims for "the Antelope Valley's scenic resources, including scenic drives, water features, significant ridgelines, buttes, and Hillside Management Areas, [to be] enjoyed by future generations."[4]

The Project is in an agricultural area of the County with limited tall or dense development in the vicinity. No additional tall or dense development is located within 0.5-mile of the Project Site. Surrounding development includes vacant land, roadways and several large-scale solar projects to the north, east, and south. The Project Site and surrounding land uses are not within a Scenic Resource Area or Significant Ecological Area (SEA) delineated by the AVAP. No designated scenic views, scenic vistas, or scenic resources as delineated by the AVAP are known to occur in the vicinity of the Project.

The Project Site and surrounding public roads have views of mountain foothills and ridgelines to the north, west, and south. During construction, any trash, debris, and waste would be removed from the Project Site. The eight-foot perimeter fence would be installed at the onset of construction to establish the Project Site boundaries. The solar equipment proposed to be constructed on the Project Site is low in profile, including PV modules mounted on fixed-tilt foundations or tracker units and associated electrical equipment that would display a height of up to 15 feet at maximum tilt. Implementation of the Project would also include collection lines, access roads, and an eight-foot chain-link perimeter fence. The proposed 10-foot landscape buffer on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8 would screen the Project from motorists.

Visual character is measured by form, line, color, and texture, which in turn could directly impact visual quality. Although the Project would convert undeveloped areas of the parcel to solar use, the visual character of the existing landscape has already been fundamentally altered by surrounding solar projects. In particular, the dominant form of the Project area is geometric and angular in the foreground due to the surrounding existing solar projects, with mountain foothills and ridgelines in the background. Dominant colors are influenced by existing dark-colored solar panels of the surrounding renewable energy facilities. The dominant texture is smooth in the foreground due to the existing surrounding solar panels and irregular in the background due to the mountains. As such, construction and operation of the Project would be consistent with the visual character of the Project area which is already dominated by renewable energy facilities. Because the visual character would not change due to Project development, the existing visual quality of the Project area would also be preserved.

Further, the introduction of Project components would not substantially obstruct or interrupt views of the surrounding mountain foothills and ridgelines which, due their height, would remain visually prominent. Therefore, less than significant impacts on scenic vistas are expected to occur.

[4] Los Angeles County Department of Regional Planning, Antelope Valley Area Plan.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
b) Be visible from or obstruct views from a regional riding, hiking, or multi-use trail?	☐	☐	☒	☐

The Project Site is in an agricultural area with limited tall or dense development in the vicinity. No additional tall or dense development is located within 0.5-mile of the Project Site. According to the AVAP, there are no equestrian, hiking, or biking trails near the Project Site. The closest trail is the Pacific Crest Trail located approximately 5.7 miles west of the Project Site at the trail's closest point. Given the limited height of the Project, surrounding foothills, existing solar facilities in the Project vicinity, and distance between the Project Site and the trail, the Project Site would not be visible from the Pacific Crest Trail. In turn, the Project would comply with AVAP Goal COS 5 (as detailed above in Checklist Question 1.a) and Goal M 10, which aims for "a unified and well-maintained multi-use…trial system that links destinations…throughout the Antelope Valley." Project impacts on this trail or other regional multi-use trails would be less than significant.

c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

The Project Site is generally flat and contains no significant geologic features or vegetation unique to the area that could be considered a scenic resource. The AVAP designates a portion of Lancaster Road (approximately 1.2 miles south of the Project Site) as a Priority Scenic Drive. This scenic drive is not considered a State Scenic Highway. Nonetheless, Project components would not exceed a height of 15 feet and would therefore be unlikely to be seen from Lancaster Road. The closest eligible State Scenic Highway is a portion of State Route 14 (SR 14) located approximately 28 miles northeast of the Project Site.[5] The Project would have no impact on scenic resources.

[5] California Department of Transportation, California State Scenic Highway System Map, 2019, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed January 20, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
d) Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality? (Public views are those that are experienced from publicly accessible vantage point)	☐	☐	☒	☐

The Project is in a non-urbanized area and is surrounded by the public right of way, private streets, and undeveloped open space to the north, west, and east, and rural residential uses to the south. Several large-scale solar projects are also located further north, east, and south of the Project Site. As described in Checklist Question 1.a, public views in the vicinity of the Project Site largely comprise views of mountain foothills and ridgelines to the north, west, and south.

The Project would be fenced at the onset of construction activities to stake out the Project Site boundaries. The fence would partially screen construction activities from views at the street level from off-site locations. Therefore, construction activities and equipment would not result in adverse visual effects.

During Project operations, the Project would include low-profile solar equipment such that they would not obstruct or occlude views of the mountain foothills and ridgelines. While the Project would change the existing public views at the immediate foreground on the public right-of-way, the installation of low profile solar equipment (e.g., the arrays and the BESS) would not degrade the visual quality and character of the Project Site and its immediate vicinity as the public would still retain views of the mountain foothills and ridgelines to the north, west, and south. Therefore, the Project would not significantly alter the existing visual character or quality of public views of the Project Site and its surroundings. The Project would conform with the visual quality of the existing solar facilities located to the southwest of the Project Site. Upon approval of the CUP, the Project would be consistent with all AVAP policies and would comply with all zoning development standards and regulations, including standards governing scenic quality. The Project would also require the County and all applicable departments to review plans to determine compliance with development standards. Therefore, impacts on degrading existing visual character or quality of public views of the Project Site and surroundings would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

The Project Site is in an area with limited existing sources of shadow (e.g., utility poles), light (e.g., cars), and glare. Existing outdoor lighting near the Project Site exists from residential buildings, including a residence south of and adjacent to the Project Site. The Project would generate new sources of shadow, light, and glare compared to existing conditions.

Construction

While the majority of Project construction would occur during daylight hours, there is a potential that construction could require the use of artificial lighting (e.g., floodlights, spotlights), particularly during the winter season when daylight is no longer sufficient earlier in the day. To the extent artificial light sources are required, such use would be temporary and would cease upon completion of Project construction. Furthermore, the Project is located within the Rural Outdoor Lighting District and would be required to comply with the County's Rural Outdoor Lighting District Ordinance, which requires that only the minimum amount of lighting is used, lights are to be shielded and directed downward and away from the sky, and no light spillage occurs. Construction lighting would be focused on the particular area undergoing work.

Daytime glare could potentially occur during construction activities if reflective construction materials were positioned in highly visible locations where the reflection of sunlight could occur. However, any glare would be highly transitory and short-term, given the movement of construction equipment and materials within the construction area, and the temporary nature of construction activities. In addition, large, flat surfaces that generate substantial glare are typically not an element of construction activities. Furthermore, temporary construction fencing comprised of a solid material or including screening would be placed along the periphery of the Project Site to screen construction activity from view at the street level from off-site locations. Therefore, there would be a negligible potential for daytime or nighttime glare associated with construction activities to occur.

Based on the above, light and glare associated with Project construction activities would not substantially alter the character of off-site areas surrounding the Project Site or adversely impact day or nighttime views in the area. Therefore, impacts related to light and glare during construction would be less than significant, and no mitigation measures are required.

Operation

Operation of the Project would introduce new sources of light and glare that are typically associated with solar facilities (e.g., security or perimeter lighting). The Project does not use concentrated solar thermal technology, but rather includes photovoltaic panels that are designed to absorb, rather than reflect, sunlight. The Project is also located within the Rural Outdoor Lighting District and would therefore also be required to comply with the County's Rural Outdoor Lighting District Ordinance, which requires that only the minimum amount of lighting is used, lights are to be shielded and directed downward and away from the sky, and no light spillage occurs. Therefore, the proposed Project would not create a new source of substantial shadow and light, and impacts would be less than significant.

Kimley-Horn and Associates, Inc. (Kimley-Horn) prepared a Solar Glare and Glint Analysis Report for the Project (see **Appendix A**).[6] Based on the analysis provided therein, the potential glare receptors located in proximity to the Project are motorists from 230th Street W, motorists from SR 138, and single-family homes situated around the Project Site. As determined from the analysis, there would be low glare potential from four of the observation points, but no glare expected to impact motorists. Since the analysis does not factor interfering topography or buildings, if there is not a direct line of sight from the Project to the locations identified due to terrain or man-made objects, potential glare produced by the Project would be reduced.

The PV panels would not be expected to cause significant glare as the panels will absorb sunlight during daylight hours and therefore, produce minimal reflectivity. PV solar panels are designed to be highly absorptive of light that strikes the panel surfaces, generating electricity rather than reflecting light. Single-axis tracker systems are designed to track the sun to maximize panel exposure to the sun, which would direct the majority of any reflected light back toward the sun in a skyward direction. PV panels have a lower index of refraction/reflectivity than common sources of glare in residential environments. The glare and reflectance levels from a given PV system are lower than the glare and reflectance levels of steel, snow, standard glass, plexiglass, and smooth water. Single-axis tracker systems would employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise. Therefore, the solar PV panels would not create a new source of substantial glare that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

[6] Kimley-Horn and Associates, Inc., Solar Glare and Glint Analysis Report, October 2023. Appendix A of this IS/MND.

2. AGRICULTURE / FOREST

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐

The Project Site currently contains fallow land that was previously used for agricultural purposes. According to the Department of Conservation's Important Farmland Finder, the Project Site is designated as Grazing Land.[7] Surrounding properties are designated as Grazing Land, Farmland of Local Importance, or Other Land. Project activities would be contained within the Project Site's boundaries and would not affect surrounding agricultural properties.

Construction and/or operation of the Project would not result in the conversion of designated Farmland to a nonagricultural use as the Project Site is designated as Grazing Land. The Project Site contains fallow land, and the Project would not change the zoning for the Project Site, such that agricultural or grazing uses could continue upon decommissioning of the Project. Upon decommissioning the Project, the land could be reclaimed for agricultural production in compliance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Therefore, for the reasons described above, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Impacts would be less than significant.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?	☐	☐	☐	☒

The Project Site has a AVAP land use designation of RL10, with a maximum density of one dwelling unit per 10 gross acres of land and is zoned Heavy Agricultural, Two Acres Minimum Required Lot Area (A-2-2). Pursuant to Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities in this zone is a permitted use with an approved CUP. According to the Department of Conservation's Williamson Act Enrollment Finder, the Project Site is not enrolled in a Williamson Act contract.[8] The Project Site is within an Agricultural Resource Area designated by the Area Plan. However, the Project would not seek to change the zoning for the Project Site such that agricultural uses could not continue

[7] California Department of Conservation, California Important Farmland Finder, https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed December 20, 2023.

[8] California Department of Conservation, California Williamson Act Finder, https://maps.conservation.ca.gov/dlrp/WilliamsonAct/. Accessed January 30, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

upon decommissioning. Upon decommissioning the Project, the land could be reclaimed for agricultural production in accordance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Therefore, the Project would not permanently conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act Contract, and no impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))?	☐	☐	☐	☒

The Project Site is zoned for Heavy Agricultural and does not contain forested area or large trees. According to the California Department of Fish and Wildlife Habitat Conservation Planning Branch, the Project Site is not located in private timberlands or public lands with forests.[9] As such, the Project would not conflict with existing zoning for, nor would it cause rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

As mentioned above in Checklist Question 2.a, the Project Site is located on fallow land that was previously used for agriculture and does not include forest land. Thus, the Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

As previously mentioned in Checklist Question 2.a, the Project Site is vacant and undeveloped and supported agricultural uses in the past. At the end of the Project's operational term (approximately 35 years), the Project would be decommissioned. Upon decommissioning, the Project Site would be restored to agricultural land and reclaimed (if the landowner chooses) for agricultural production in compliance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Additionally, operation of the solar facility on the Project Site would not preclude the surrounding areas from being improved with agricultural uses. Therefore, the Project would not permanently convert farmland to non-agricultural use or convert forest land to non-forest use, and impacts would be less than significant.

[9] California Department of Fish and Wildlife Habitat Conservation Planning Brach, California Forests and Timberland Map, 2015, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109917&inline. Accessed January 24, 2024.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?	☐	☐	☒	☐

The following air quality analysis is primarily based on the Air Quality Analysis Technical Memorandum prepared by Kimley-Horn (see **Appendix B**).[10] The State of California is divided geographically into 15 air basins, generally along geographic or topographic boundaries. The Project Site is located in the Mojave Desert Air Basin (Basin). The Basin includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The Antelope Valley Air Quality Management District (AVAQMD) has jurisdiction over stationary sources of air pollution located within the northern desert portion of Los Angeles County, which includes the Project Site. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Areas for which there is insufficient data available are designated unclassified. The Project Site is a Federal nonattainment area for ozone (O_3), and a State nonattainment area for O_3 and PM10. The Project Site is classified as attainment or unclassified for lead, visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

The AVAQMD PM10 Attainment Plan and Ozone Attainment Plan established under the Western Mojave Desert Air Quality Management Plans (AQMPs) set forth a comprehensive set of programs that will lead the Basin into compliance with Federal and State air quality standards. The control measures and related emission reduction estimates within the AVAQMD PM10 Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans is determined by:

- Demonstrating Project consistency with local land use plans and/or population projections (**Criterion 1**);
- Demonstrating Project compliance with applicable AVAQMD Rules and Regulations (**Criterion 2**); and
- Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards (**Criterion 3**).

Criterion 1: Consistency with local land use plans and/or population projections.

Growth projections included in the AQMPs form the basis for the projections of air pollutant emissions and are based on general plan land use designations and the Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-

[10] Kimley-Horn and Associates, Inc., Air Quality Analysis Technical Memorandum, April 2025. Appendix B of this IS/MND.

2040 RTP/SCS) demographics forecasts. While SCAG has recently adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), the AVAQMD has not released an updated AQMP that utilizes information from the 2020-2045 RTP/SCS. As such, this consistency analysis is based off the 2016-2040 RTP/SCS. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the County. The AVAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the AQMPs.

The AVAP is the local land use plan, which is a component of the County General Plan, that guides future development through various goals and policies. The Project Site has a land use designation of RL10, as designated in the AVAP, and is zoned A-2-2 in the Antelope Valley Planning Area. Pursuant to the Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities is a permitted use with an approved CUP.

SCAG growth forecasts in the 2016-2040 RTP/SCS estimate unincorporated Los Angeles County's population to reach 1,273,700 persons by 2040, representing a total increase of 233,000 persons between 2012 and 2040. Additionally, SCAG growth forecasts in the 2016-2040 RTP/SCS estimate the County's employment to reach 288,400 jobs by 2040, representing a total increase of 65,500 jobs between 2012 and 2040.

The Project does not include a residential component and would not increase local population growth. The Project does not include a commercial component and would not substantially increase employment. Construction of the Project would not result in residential, commercial, or growth-inducing development that would result in a substantial increase in growth-related emissions. In addition, because of the presence of locally available construction workers, and because of the relatively short duration of construction (approximately seven months), workers are not expected to relocate to the area with their families.

The Project would operate year-round. Typical operational and maintenance activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. Therefore, limited staff would be required during operations. As such, there would be no employee or population growth as a result of the Project, and the Project would not cause the SCAG growth forecast to be exceeded. As the AVAQMD has incorporated these forecasts on population, housing, and employment into the AQMPs, the Project would be consistent with the AQMPs. Impacts would be less than significant.

Criterion 2: Compliance with applicable AVAQMD Rules and Regulations.

The Project would be required to comply with all applicable AVAQMD Rules and Regulations. This would include AVAQMD Rules 401, 402, and 403. AVAQMD Rule 403 requires periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust (PM10) emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions. The Project would comply with applicable AVAQMD rules, enforced through Project Conditions of Approval, and not conflict with applicable AVAQMD Rules and Regulations. Therefore, impacts would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Criterion 3: Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards.

Analysis of the Project's potential to result in more frequent or severe violations of the CAAQS and NAAQS can be satisfied by comparing Project emissions to AVAQMD thresholds. As discussed under Checklist Question 3.b below, unmitigated short-term construction emissions would not exceed AVAQMD significance thresholds. Additionally, unmitigated long-term operational emissions of all criteria pollutants studied (nitrous oxides [NO_X], reactive organic gases [ROG], carbon monoxide [CO], PM10, and PM2.5) would be less than the applicable AVAQMD significance thresholds. Therefore, the Project would not delay the Basin's attainment goals for O_3, PM10, and PM2.5, and would not result in an increase in the frequency or severity of existing air quality violations. As such, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, impacts would be less than significant.

Conclusion: As discussed above, the Project would comply with AVAQMD Rules and Regulations and would not induce residential or worker population growth. Further, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, the Project would not result in or cause National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) violations. As such, the Project would be consistent with the AVAQMD's AQMPs and impacts would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

Construction

Project construction involving the use of heavy-duty construction equipment is anticipated to be completed over a period of approximately seven months. The Project involves construction activities associated with demolition, site preparation, grading, paving, construction/installation, PV panel vendor trips, and paving.

The analysis of daily construction emissions has been prepared using CalEEMod. Refer to **Appendix B** for the CalEEMod outputs and results. **Table 2: Daily Construction-Related Emissions** and **Table 3: Annual Construction-Related Emissions** present the anticipated short-term construction emissions. As indicated in Table 2 and Table 3, criteria pollutant emissions during Project construction would not exceed the AVAQMD significance thresholds. Therefore, total Project construction-related air emissions would be less than significant.

Table 2: Daily Construction-Related Emissions

Construction Year	Maximum Pounds Per Day[1, 2]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025)	2.79	25.3	30.7	0.06	5.01	2.26
AVAQMD Thresholds	*137*	*137*	*548*	*137*	*82*	*65*
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less

Notes:
1. The highest values between summer and winter results were used as a worst-case scenario.
2. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.

Source: CalEEMod version 2022.1.1.21 Refer to **Appendix B** for model outputs.

Table 3: Annual Construction-Related Emissions

Construction Year	Maximum Tons per Year[1]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025)	0.12	0.98	1.26	<0.005	0.19	0.09
AVAQMD Thresholds	*25*	*25*	*100*	*25*	*15*	*12*
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less

Notes:
1. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.

Source: CalEEMod version 2022.1.1.21 Refer to **Appendix B** for model outputs.

Operations

Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. **Table 4: Daily Operational Emissions** and **Table 5: Annual Operational Emissions**, present the Project's anticipated mobile source (i.e., motor vehicle use), energy source, and area source emissions. Each of these source types are described below.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Table 4: Daily Operational Emissions

Source	Maximum Pounds Per Day[1]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	40.7	0.49	58.7	<0.005	0.10	0.08
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.01	0.40	0.06	<0.005	0.13	0.04
Total Emissions	*40.7*	*0.90*	*58.8*	*0.01*	*0.24*	0.12
AVAQMD Thresholds	***137***	***137***	***548***	***137***	***82***	***65***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding. 1. The highest values between summer and winter results were used as a worst-case scenario.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix B** for model outputs.						

Table 5: Annual Operational Emissions

Source	Maximum Tons per Year					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	6.53	0.04	5.28	<0.005	0.01	0.01
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	<0.005	0.06	0.02	<0.005	0.02	0.01
Total Emissions	*6.53*	*0.010*	*5.29*	*<0.005*	*0.03*	0.01
AVAQMD Thresholds	***25***	***25***	***100***	***25***	***15***	***12***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix B** for model outputs.						

Area Source Emissions. Area source emissions would be generated due to potential BESS architectural coatings. Other typical area sources (e.g., consumer products, landscaping equipment, etc.) would not be utilized by the Project.

Energy Source Emissions. Energy source emissions would be generated due to electricity usage associated with the Project. The Project's operational activities would not consume natural gas. The Project would consume negligible amounts of electricity for auxiliary equipment, such as BESS HVAC units, communications equipment, and lighting.

Mobile Source Emissions. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM10, and PM2.5 are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM10, and PM2.5); however, CO tends to be a localized pollutant, dispersing rapidly at the source. During operations, it is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips); refer to **Appendix B** for assumptions and calculations.

Total Operational Emissions. As shown in Table 4 and Table 5, estimated total Project operational emissions would not exceed established AVAQMD thresholds. Therefore, impacts associated with Project operational emissions would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors (volatile organic compounds [VOCs] and NO_X) affect air quality on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations resulting from individual projects. The NAAQS and CAAQS are set to be protective of human health, however, which means that the Project's less than significant increases in regional air pollution from criteria air pollutants would have less than significant impacts on human health.

The AVAQMD does not have clear thresholds or methodology to quantify health impacts of criteria pollutants from individual projects. Other air districts, including the South Coast Air Quality Management District (SCAQMD), have stated that it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants from individual projects for various reasons including modeling limitations as well as the fact that certain emissions are the result of chemical interactions and it is impossible to determine exactly where in the atmosphere precursor air pollutants will interact.

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD has written that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at the site with the highest ozone levels by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with less than a regional scope) due to photochemistry and regional model limitations.

Because the Project would not exceed AVAQMD's thresholds for construction and operational air emissions, the Project would have a less than significant impact for air quality health impacts as well. The Project also would be required to comply with all applicable AVAQMD Rules and Regulations, including

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Rules 401, 402, and 403, which require among other things periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust (PM10) emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection and recycling program would be utilized to promote recycling of Project components and minimize disposal in landfills. Emissions associated with decommissioning activities would be similar to those during construction of the Project. As shown in Table 2 and Table 3, emissions would not exceed AVAQMD thresholds and impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, parks, daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a residential use located approximately 110 feet south.

Construction

Project construction is anticipated to be completed over a period of approximately seven months. Project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit Diesel Particulate Matter (DPM). In 1998, the CARB identified diesel exhaust as a Toxic Air Contaminant (TAC). Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. Project construction would comply with the California Code of Regulations (CCR), Title 13, Section 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to nor more than five minutes. Implementation of these regulations would reduce the amount of DPM emissions from Project construction. The closest sensitive receptor is located 110 feet

(measured from the Project Site's fencing to the property line of the nearest sensitive receptor) south of the Project Site. While construction activities are anticipated to be completed over a period of approximately seven months, activities in the vicinity of this receptor would be even shorter, as construction moves throughout the Project Site. Due to the distance between the Project Site and the closest sensitive receptors, potential health impacts on sensitive receptors associated with exposure to DPM from Project construction would be less than significant.

Furthermore, construction activities are expected to occur well below the 30-year exposure period used in health risk assessments. Emissions would be short-term and intermittent in nature, and therefore would not generate TAC emissions at high enough exposure concentrations to represent a health hazard. Therefore, construction of the Project would not result in a significant increase in elevated cancer risk to nearby sensitive receptors and impacts would be less than significant.

Operations

Typical operational and maintenance activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. None of these activities would result in the generation of excessive TAC emissions, or associated health risks. Therefore, operation of the Project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors and potential impacts would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.). CO is primarily a product of incomplete combustion of gaseous or liquid fuels, meaning tailpipe emissions are worse in stop-and-go congested traffic as compared to free flowing conditions. The Project does not include any stationary sources of combustion, and results in a net increase of approximately 20 one-way operational trips per year. Construction would be temporary and is expected to last approximately seven months, such that construction would not result in a long-term source of CO emissions. The Project is not located near existing CO hotspots and the trips associated with the Project are insufficient to create a CO hotspot.

With such low existing ambient levels of CO, low levels of CO emissions from the Project, and lack of congested roadways around the Project, the Project would not cause CO hotspots in excess of applicable NAAQS or CAAQS standards at any intersections within the County. Impacts would be less than significant in this regard.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities.

According to the Department of Conservation Division of Mines and Geology, A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report (August 2000), serpentinite and ultramafic rocks do not occur within the vicinity of the Project Site. Thus, there would be no impact in this regard.

Valley Fever

Coccidioidomycosis (CM), often referred to as San Joaquin Valley Fever or Valley Fever, commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top 2-12 inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust are also more likely to contract Valley Fever.

The fugus is known to live in the soil in the southwestern United States and parts of Mexico and Central and South America. People and animals can get sick when they breathe in dust that contains the Valley fever fungus. This fungus infects the lungs and can cause respiratory symptoms including cough, fever, chest pain, and tiredness. In California, the number of reported Valley fever cases has greatly increased in recent years. The number of Valley Fever cases in the United States has been steadily increasing over the past few years. There were over 20,000 reported cases in 2019, and the Center for Disease Control and Prevention (CDC) estimates that an additional 150,000 cases go undiagnosed each year. About 32 percent of all cases occur in California.

When a susceptible human who is not immune inhales these airborne spores, they enter the lungs and may cause respiratory infections, such as pneumonia. Roughly 60 percent of individuals infected with CI have no symptoms. For the remaining 40 percent, a wide spectrum of clinical symptoms can occur. The most common presentation of CM is a mild, influenza-like illness while the more severe includes pneumonia-like symptoms requiring rest and medication (fungus-killing medicines). The symptoms of the disease typically begin about two weeks after inhaling the spores. These symptoms typically include flu-like symptoms such as fever, aching, chills, sweats, fatigue, cough, and headache. In uncomplicated CM, symptoms usually subside in a few weeks or months.

In approximately one percent of infected persons, disseminated disease develops, in which CM is spread from the lungs to other areas of the body such as the skin, bones, brain, or other organs. This spreading of CM infection beyond the lungs can be fatal. Meningitis, the most lethal complication of disseminated CM, may cause a stiff neck, severe and persistent headache, nausea, vomiting, and various other central nervous system symptoms such as disorientation, loss of balance or equilibrium, inability to think clearly and loss of

consciousness. People with diabetes and women who contract CM while they are pregnant are particularly prone to dissemination of the disease.

Currently, no vaccine is available to prevent this infection. Further, there is no effective way to detect and monitor CI growth patterns in the soil. Thus, controlling the growth of the fungus in the environment to reduce the risk to individuals is currently not a viable option. A skin test can be conducted to identify individuals who have been infected in the past and would have developed immunity to the fungus, although recurrence as a result of immuno-suppression is possible. Even if the fungus is present in soil, earthmoving activities may not result in increased incidence of valley fever. Propagation of Coccidioides is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells.

To reduce exposure to CI, development projects implement measures to prevent wind dispersion of arthrospores, such as applying dust control palliatives, water, or vegetation to fungus-bearing soils. To facilitate early identification of infection and subsequent treatment. The Los Angeles County Code of Ordinances Section 22.140.510 requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403 and AVAQMD CEQA Guideline Fugitive Dust Control Measures. The California Department of Public Health recommends stopping outside activity during conditions where the dust cannot be controlled well. Appropriate use of respiratory protect may be also needed in some circumstances.

During ground disturbing activities associated Project construction, the potential exists that such activities could disturb dust particles and, if present, CI spores, which could then be released into the air and potentially be inhaled by on-site workers and nearby sensitive receptors; exposure to these spores can cause Valley Fever. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track out onto public roads, and the minimization of non-essential grading during high wind conditions. Due to the distance of the nearest sensitive receptor, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. Although CEQA does not require the analysis of a Project's impacts on its construction workers, such analysis is included for informational purposes. The best approaches to reducing construction workers' risk of contracting Valley Fever are awareness and dust reduction because dust can be an indicator that increased efforts are needed to control other airborne particulates (including CI spores, if any). Compliance with AVAQMD rules reduce dust. For example, Rule 401 prohibits a person from discharging into the atmosphere any air emission contaminant for a period or periods aggregating more than three minutes in any single hour emissions that is: (a) as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines; or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than 20 percent opacity. Rule 402 prohibits the discharge of air contaminants in quantities that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public. Additionally, the Project would be required to provide training and awareness of Valley Fever **MM AQ-1**. **MM AQ-1** would further ensure worker safety through education and ensuring implementation of required California Division of Occupational Safety and Health (Cal/OSHA) safety measures.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

With the implementation of **MM AQ-1**, the potential for the release of CI spores, if present, and the associated potential for workers or nearby residents to contract Valley Fever from Project construction activities would be minimized. Accordingly, the Project would not add significantly to the existing exposure level of construction workers or nearby residents to the CI fugus. Therefore, potential impacts would be less than significant with mitigation incorporated.

MM AQ-1 Minimize Exposure to Potential Valley Fever-Containing Dust. Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan (VFMP) and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction:

- An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever.
- Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction.
- Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.
- Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators.
- Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.

e) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

According to the CARB's CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants,

composting, refineries, landfills, dairies, and fiberglass molding. The Project includes construction of a PV electricity generation and energy storage facility and does not include any uses identified by the CARB as being associated with odors.

Project construction activities may generate detectable odors from heavy-duty equipment exhaust. However, construction-related odors would be short-term in nature and cease upon completion of Project construction. Further, the nearest potential residence is too far from the Project Site to detect construction odors. In addition, the Project would be required to comply with the CCR, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors, if any, from heavy-duty equipment exhaust. Therefore, potential impacts would be short-term and are considered less than significant.

As previously noted, land uses associated with odor complaints do not typically include PV electricity generation and energy storage facilities. During operations, the Project would generate an estimated 6 trips internal to the Project Site for required maintenance activities and approximately 4 trips associated with solar panel washing activities, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips). Project operational vehicle trips would be minimal and not of sufficient number to create concentrations of odorous fumes to form and cause a nuisance. As such, potential impacts would be easily dispersed in the atmosphere and are less than significant.

4. BIOLOGICAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☐	☒	☐	☐

The findings discussed below are based on the Biological Resources Assessment (BRA) prepared by Kleinfelder (see **Appendix C-1**) and the Biological Resources Supplemental Memorandum (Supplemental Memorandum) prepared by Rincon Consultants, Inc. (Rincon) (see **Appendix C-2**).[11;12]

Existing vegetation on the Project Site includes inactive agriculture/ruderal land and rubber rabbitbrush scrub that recolonized the Project Site after agricultural operations were discontinued. In addition, according to a January 2023 field survey conducted for the BRA, a row of juniper trees was planted along the western boundary of the Project Site sometime between the mid-1980s and mid-1990s. The Los Angeles County General Plan describes juniper woodland as an important habitat feature that supports multiple wildlife species in a concentrated area. However, this row of trees does not fall into the category of juniper woodland as described in the Plan, as it is not a natural aggregation of trees and does not therefore provide the benefits of a true woodland. This is due to the linear configuration of the trees directly adjacent to the road and the fact that approximately half of the trees were dead at the time the field survey was performed in January 2023. At present, the row of juniper trees provides little habitat value to wildlife. The Project would likely require the removal of one to three of the planted trees to support construction of the proposed access road into the Project Site. However, since the juniper trees are not a natural aggregation of trees and do not support substantial habitat value to wildlife, Project impacts would not be adverse.

No special-status plant species were observed during the January 2023 and April 2025 field survey, and none are expected to occur within the Project Site due to a lack of suitable habitat, history of agricultural on-site disturbance, or the fact that the Project Site is outside of the species' known range.

Eleven special-status avian species have a moderate potential to occur within the vicinity of the Project Site. Four of these species are known to occur within the two-mile/nine-quad search radius of the Project area in the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife's (USFWS) Information for Planning and Consultation (IPaC) searches: burrowing owl (*Athene cunicularia*)[13], loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), and Swainson's hawk (*Buteo swainsoni*). The Project Site and adjacent areas contain suitable habitat for these species, and there are several documented occurrences of these species within two to six miles of the Project Site. The

[11] Kleinfelder, Biological Resources Assessment, February 2023, Updated October 2024. Appendix C-1 of this IS/MND.
[12] Rincon Consultants, Inc., Biological Resources Supplemental Memorandum, May 2025. Appendix C-2 of this IS/MND.
[13] Based on Rincon's protocol-level BUOW survey conducted according to CDFW guidelines on April 3, 2025, no burrows of suitable size were observed during the survey, and no BUOW were detected. Therefore, there would be a low potential for this species to occur.

remaining seven bird species are listed on Part I of the Los Angeles County Sensitive Bird Species List, including ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides*), prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), turkey vulture (*Cathartes aura*), and western meadowlark (*Sturnella neglecta*). Most bird nests and eggs are protected under the California Fish and Game Code (CFGC) Section 3503 and the Migratory Bird Treaty Act (MBTA). Common native and non-native species such as white-crowned sparrow (*Zonotrichia leucophrys*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mountain bluebird (*Sialia currucoides*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*) have a potential to nest and/or forage in vegetation within and/or near the Project Site. Additionally, raptors that occur in agricultural landscapes such as barn owls (*Tyto alba*) and American kestrels (*Falco sparverius*) often nest in palm trees such as those found on-site, foraging in adjacent fields. Swainson's hawk (SWHA) occurrences in the vicinity of the Project Site are concentrated more than 15 miles east of the Project Site around Lancaster and east of Lancaster. A SWHA survey was performed by qualified Rincon biologists on April 15, 2025. No SWHA were observed within the 0.5-mile buffer of the Project Site during the survey. There is only one CNDDB documented occurrence of SWHA within 5 miles of the Project Site, dated 2020. Direct impacts (e.g., injury or mortality) to nesting birds or indirect impacts (e.g., noise, dust) that disrupt nesting behavior and reproductive success would be potentially significant. Additionally, trash and waste items generated from Project construction and operational activities could attract predators such as raccoons and American crows that could prey upon sensitive wildlife species, which would also result in potentially significant impacts.

The Project would be required to implement a nesting bird survey (see **MM BIO-1**) during construction and decommissioning for compliance with the MBTA and CFGC Guidelines and to reduce impacts on nesting birds to less than significant. The Project also would implement **MM BIO-2**, which requires avoidance buffers around any active SWHA nests, should the pre-construction nesting bird survey detect active SWHA nests. Nesting bird surveys will not be required during O&M activities due to the low frequency and short duration of O&M activities over the life of the Project (e.g., panel washing 2-3 days per year with 1-2 personnel and a pickup truck. However, the Project would be required to implement **MM BIO-3** to ensure that all persons working on the Project (during construction, O&M, and decommissioning) received worker environmental awareness training. The Project would also be required to implement **MM BIO-4** and **MM BIO-5** to properly contain trash receptacles and visually check all equipment, respectively.

On October 10, 2024, the California Fish and Game Commission designated the western burrowing owl as a candidate for listing under the California Endangered Species Act. As discussed in the Supplemental Memorandum, Rincon biologists performed a protocol-level burrowing owl (BUOW) survey on April 3, 2025 according to the CDFW 2012 *Staff Report on Burrowing Owl Mitigation.* No burrows of suitable size (4 inches or greater) were observed during the survey, and no BUOW were detected. Nevertheless, even with the low potential for BUOW to occur on the Project Site, the Project would implement pre-construction surveys and avoidance measures specific to BUOW (see **MM BIO-6**).

Additionally, there are two special-status mammal species with a low potential to occur within the Project Site: American badger (*Taxidea taxus*), a California species of special concern, and desert kit fox (*Vulpes macrotis arsipus*). There is low-quality habitat for American badger and desert kit fox in the Project area. No burrows of suitable size to support these species were observed during the field survey. As previously discussed, no burrows of suitable size for desert kit fox or American badger were observed during the April 3, 2025 BUOW survey. There are only two documented occurrences of American badger within eight miles of the Project area; one has no date or owner information, and the other is from 1906. Occurrence records for desert kit fox

are not kept by the CNDDB or IPaC, as this species is not listed under Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA); however, desert kit fox is protected by Title 14, Section 460 of the CCR (furbearing mammals). Therefore, the Project will be required to implement **MM BIO-3** through **MM BIO-5** as well as pre-construction surveys and avoidance/eviction plans for desert kit fox (see **MM BIO-7**) and American badger (see **MM BIO-8**).

The Crotch's bumble bee (*Bombus crotchii)* is a candidate species under the California Endangered Species Act. The Crotch's bumble bee requires availability of suitable colony nesting sites, floral resources to obtain nectar and pollen throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for queens. While there is low quality habitat for the Crotch's bumble bee on the Project Site, the species has been documented in the Antelope Valley. A formal habitat assessment was performed on April 8, 2025 to determine if suitable nesting or foraging habitat for Crotch's bumble bee is present on the Project Site. Rincon biologists observed potentially suitable foraging and nesting habitat; however, the Project Site provides limited suitable habitat compared to surrounding areas due to previous agricultural activities, and no bumble bees were observed during the habitat assessment. A protocol survey pass was performed on April 21, 2025 by two qualified Rincon biologists, each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed. Accordingly, there is low potential for Crotch's bumble bee on the Project Site. Nevertheless, the Project would implement **MM BIO-9** to minimize potential impacts to Crotch's bumble bee.

A rare plant survey was performed on April 8, 2025 by two Rincon botanists. No rare plants were observed on the Project Site. The vegetation communities mapped on the Project Site included cheat grass grassland and rubber rabbit brush scrub. Although some small patches of native wildflowers were observed on the Project Site (including California poppy [*Eschscholzia californica*] and yellowray goldfields [*Lasthenia glabrata*], none were large enough to be classified as a "wildflower field" according to Holland types and minimum mapping standards employed during the survey. Therefore, there is low potential for impacts to rare plants or sensitive vegetation communities. Nevertheless, to minimize the potential impacts to native vegetation and to promote Project Site revegetation following Project construction, the Project would implement **MM BIO-10** to minimize impacts to soil and native vegetation.

Solar PV panels have a strong polarization signature, which is an element thought to mimic water. As a result, some have theorized that PV panels can attract species that mistake the panels for bodies of water, potentially leading to increased risk of collisions, being stranded within site fencing once they land, or other forms of distress.[14] The phenomenon is sometimes referred to as the "lake effect." The strongest evidence for lake effect is mortality of water-dependent species found at PV solar farms in desert environments with no natural waterbodies in the region.[15] Recent studies have shown that some species of birds that use aquatic habitats could be attracted to solar PV panels; however, it is unlikely that all aquatic birds at all times would be attracted to the panels.[16] The potential for this effect also depends on the regional context and the availability of natural waterbodies near the solar site. There are large waterbodies within 12 miles of the Project Site, including Quail

[14] The Nature Conservancy of California, Mojave Desert Ecoregional Assessment, September 2010, https://www.scienceforconservation.org/assets/downloads/Mojave_Desert_Ecoregional_Assessment_2010.pdf. Accessed April 10, 2025.

[15] Kosciuch K, Riser-Espinoza D, Moqtaderi C, Erickson W., Aquatic Habitat Bird Occurrences at Photovoltaic Solar Energy Development in Southern California, USA. Diversity. 13(11):524, 2021, https://doi.org/10.3390/d13110524. Accessed April 10, 2025.

[16] Ibid.

Lake, Tehachapi Afterbay, and Fairmont Reservoir, but there are no large waterbodies within or directly adjacent to the Project Site. Therefore, the potential for aquatic birds to collide with solar PV panels due to "lake effect" is very small. Nevertheless, the Project would implement **MM BIO-11** to place panels in a close to vertical position at the end of the day. **MM BIO-11** would reduce the risk of birds attempting to land on the PV array at sunset or sunrise by mistaking it for water, and impacts would be reduced to less than significant.

With implementation of **MM BIO-1** through **MM BIO-11**, impacts to special-status species would be reduced to less than significant.

On a cumulative level, the 29-acre Project Site is consistent with the land uses analyzed in the Los Angeles County General Plan EIR. Given its small size, consistency with General Plan goals and policies addressing biological resources such as special-status species, wetlands, and sensitive habitats, and implementation of the listed mitigation measures, the Project would not have a cumulatively considerable effect on biological resources or habitat for special-status species. The potential effects of the Project on biological resources have been adequately addressed in the BRA and Supplemental Memorandum. Multiple surveys have been conducted on the Project Site from 2023 to 2025, and during that time, no special-status plant or wildlife species, sign of these species, or sensitive vegetation communities have been observed on the site. All burrows on the site were mapped and none were of sufficient size to support BUOW, desert kit fox, or American badger. Similarly, no rare plants were observed during focused surveys, and no sensitive habitat types, as defined by CDFW and California Native Plant Society (CNPS), have been mapped on the Project Site. The absence of special-status species and lack of high-value habitat on the site is likely due to past agricultural uses that included regular disking, which resulted in the degradation of natural habitats and disturbance of native soils, making it a poor candidate for burrowing animals and rare plants. Thus, the Project Site overall provides low quality habitat, and development of the Project Site would not cause a significant loss of high-value foraging, sheltering, or nesting habitat. The surrounding undeveloped parcels that have not been disturbed by agricultural uses are of much higher value to special-status species.

In addition to being of poor habitat value, the small footprint of the Project means that the relative scale of potential Project impacts is limited and contributes little to any potential cumulative effects in the larger vicinity of the Project, as it does not reduce movement corridors or significant amounts of potential habitat for special-status plant and wildlife species. In addition, the habitat on the Project Site would not be removed completely, as annual grassland will be retained under the arrays. This will provide foraging opportunities for multiple species. Moreover, the Project was designed to allow for movement around and through the arrays by requiring a gap at the bottom of the fence, therefore encouraging movement of wildlife species through and in the vicinity of the Project Site. The land that the Project is sited on has not been designated as critical habitat by USFWS, nor has it been set aside for conservation by any other entity. Although the Project Site may provide low-quality habitat for some species, the Project is subject to robust mitigation measures designed to avoid and minimize impacts to these species. Because of this, the Project would not result in significant impacts to any species as a whole or their habitat.

A realistic assessment of potential impacts of the Project has been taken into account, and the mitigation proposed is equivalent to the level of potential impacts. Although other solar projects have been developed or may be proposed in the vicinity of this Project in the future, those projects would be subject to similar measures designed to reduce impacts. As stated previously, the Project has been designed in a manner that avoids and minimizes potential impacts to biological resources to the maximum extent practicable. All Project-

related impacts would be less-than-significant due to robust mitigation measures that have been developed during the planning phase, as well as Project design elements that would limit potential impacts during construction and operation of the Project, and other projects would be subject to similar requirements designed to avoid and minimize impacts. Thus, cumulative impacts would be less than significant, and the Project's contribution to any cumulative impacts would not be cumulatively considerable.

MM BIO-1 **Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500-foot buffer (0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not be required during Operation & Maintenance activities.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.

MM BIO-2 Swainson's Hawk (SWHA). If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.

MM BIO-3 Worker Environmental Awareness Training. A qualified biologist shall conduct a worker environmental awareness training (WEAT) program, which shall be reviewed by Los Angeles County, for all persons working on the Project prior to the onset of construction for construction, operation and maintenance, and decommissioning activities. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered shall be included in the training. Special-status species, including legal protection, penalties for violations, and Project specific protective measures shall also be discussed. Contact information for the qualified biologist and other useful wildlife-related contacts (e.g., CDFW, venomous snake humane relocation services, etc.) shall be included in the WEAT. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training shall be maintained at the worksite with the Project supervisor, and a handout containing this information shall be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective measures. The WEAT shall be sent to the County for review prior to implementation.

MM BIO-4 Trash Receptacles. All trash and waste items generated by construction, operation and maintenance, and decommissioning or crew activities shall be properly contained in a covered and locked trash receptacle and/or removed from the Project Site daily. All containers shall be wildlife-proof. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species.

MM BIO-5 Common and Special-Status Wildlife Awareness. All Project personnel shall visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on-site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during constructional phases of the Project

(construction, O&M, and decommissioning), all excavated holes, ditches, or trenches greater than six (6) inches deep shall be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps shall be placed in excavations. After opening and before filling, such holes, ditches, and trenches shall be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) shall not contain monofilament netting.

All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire shall be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.

MM BIO-6 Burrowing Owl Avoidance. A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.

MM BIO-7 Desert Kit Fox. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season

(September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.

MM BIO-8 American Badger. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).

MM BIO-9 Crotch's bumble bee. A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

MM BIO-10 Vegetation and Revegetation. To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.

MM BIO-11 Panel Positioning. To minimize "lake effect" related adverse impacts to bird species, the panels shall be positioned overnight where they last tracked the sun or pre-positioned toward the east to capture sunrise (i.e., panels shall be in a close to vertical position) and provide documentation to the County upon request.

b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS?	☐	☐	☒	☐

The Project Site contains fallow land that was previously used for agricultural uses. Additional plant species beyond the existing ruderal vegetation are minimal and dominated by non-native species that likely colonized the Project Site after agricultural purposes were discontinued. According to the USFWS National Wetlands Inventory (NWI), a riverine feature is mapped outside the northwestern corner of the Project Site. However, this system is intermittent: the substrate is usually exposed, and surface water is present for variable periods without detectable seasonal periodicity.[17] Furthermore, the riverine system does not support any sensitive plant species within the Project Site, as vegetation within the Project Site is comprised of ruderal and non-native species, as mentioned above. Additionally, no wetland indicators (e.g., visible Ordinary High Water Mark [OHWM], bed and bank, soil surface cracks, hydrology, or hydrophytic vegetation) were observed in the vicinity of this feature or in any other part of the Project Site during the field survey, which was performed during the wet season. This feature is likely no longer present due to modification of the landscape during the last several decades of agricultural practices. Nevertheless, to avoid potential encroachment on the riverine system, the Project would include a 50-foot setback from the intermittent riverine system, and all Project construction and operational activities would be contained within the Project Site. No other sensitive natural communities were identified within the Project Site in the BRA. Therefore, the Project would not have a

[17] United States Fish and Wildlife Service, National Wetlands Inventory, https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

substantial adverse effect on any riparian habitats or other sensitive natural communities, and impacts would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐

As described in Checklist Question 4.b, a riverine feature is mapped outside the northwestern corner of the Project Site. However, the USFWS NWI identifies this system as an intermittent system in which the substrate is usually exposed, and surface water is present for variable periods without detectable seasonal periodicity. This feature is likely no longer present due to modification of the landscape during the last several decades of agricultural practices. No other jurisdictional waters or wetlands were identified on-site during the field survey, and no riparian vegetation, hydrologic, or wetland indicators were observed in the vicinity of the riverine feature or in any other part of the Project Site. Therefore, the Project would not have a substantial adverse effect on State or federally protected wetlands, and impacts would be less than significant.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

Existing vegetation on the Project Site includes inactive agriculture/ruderal land and rubber rabbitbrush scrub that recolonized the Project Site after agricultural operations were discontinued. According to the BRA, the Project Site is not recognized as an important wildlife corridor or native wildlife nursery site by any regional or state agency or jurisdiction and is not considered critical to the ecological functioning of adjoining open space areas. However, the Project Site likely supports local movement patterns and provides food and cover resources for common wildlife species such as coyotes (*Canis latrans*). Small mammal burrows were present throughout the Project Site. Additionally, as described in Checklist Question 4.a, special-status and common avian species could nest/forage within the Project Site and adjacent areas. Therefore, impacts to nesting or migratory species could be potentially significant. With implementation of **MM BIO-1** through **MM BIO-6,** impacts would be reduced to less than significant.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)?	☐	☐	☒	☐

Existing vegetation on the Project Site includes inactive agriculture/ruderal land and rubber rabbitbrush scrub that recolonized the Project Site after agricultural operations were discontinued. Additionally, as further explained in Checklist Question 4.a, the western boundary of the Project Site contains a row of juniper trees. The Los Angeles County General Plan describes juniper woodland as an important habitat feature that

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

supports multiple wildlife species in a concentrated area. However, the row of juniper trees on-site is not a natural aggregation of trees and therefore does not provide the benefits that a true woodland would and provides little habitat value to wildlife. Therefore, although the Project would remove one to three of these trees, the Project would not remove any natural aggregation of juniper trees. The Project Site does not contain any other oak or other unique native or protected trees. Therefore, impacts would be less than significant.

f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, Ch. 102), Specific Plans (L.A. County Code, Title 22, Ch. 22.46), Community Standards Districts (L.A. County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (L.A. County General Plan, Figure 9.3)? ☐ ☐ ☐ ☒

The Project Site is not within a Wildflower Reserve Area, Significant Ecological Area, Specific Plan, Community Standard District, or Coastal Resource Area outlined in the Los Angeles County General Plan or the Los Angeles County Code of Ordinances. The nearest protected area is a SEA for Joshua Tree Woodlands, located approximately one mile east of the Project Site, which would not be impacted by the Project. According to the BRA, the Project Site does not contain oak trees; therefore, the Project would not conflict with the Los Angeles County Oak Tree Ordinance. Additionally, as described in the Project Description above, the Project would not conflict with the standards outlined in the Los Angeles County's Renewable Energy Ordinance. Furthermore, as described in Checklist Question 2.b, although the Project Site is within an Agricultural Resources Area designated by the AVAP, the Project would not seek to change the zoning for the Project Site such that agricultural uses could not continue upon decommissioning. Upon decommissioning the Project, the land could be reclaimed for agricultural production in accordance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Therefore, Project implementation would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ☐ ☐ ☐ ☒

The Project Site is located within the West Mojave Habitat Conservation Plan (WMHCP). The WMHCP is a habitat conservation plan adopted by the Bureau of Land Management (BLM) in 2006. However, the plan only applies to BLM public lands, as other agencies did not adopt the habitat conservation plan proposed in the WMHCP to cover their jurisdictions[18]. Therefore, the plan provisions have not been adopted by the County. Thus, the Project does not conflict with the provisions of the WMHCP. The Project Site is not

[18] Los Angeles County, Los Angeles County General Plan Update Draft EIR, 2014, page 5.4-6 and 5.4-118 https://planning.lacounty.gov/wp-content/uploads/2022/11/gp_2035_deir.pdf. Accessed January 4, 2024.

	Less Than Significant		
Potentially Significant Impact	*Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

located within any other adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impact would occur.

5. CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?	☐	☐	☐	☒

The findings discussed below are based, in part, on the Cultural Resources Identification Report (CRIR) prepared by Kleinfelder (see **Appendix D**).[19]

The Project Site is undeveloped and is generally surrounded by undeveloped land and some sporadic rural residences and small- to large-scale solar installations to the north and east. As stated in the CRIR, the Project Site was used for agriculture until approximately 2011 or 2012 and appears to have remained fallow land since then. Based on background research and review of historic maps of the Project Site, no historic buildings or structures were identified within the Project Site. Since the on-site agricultural development is from 2011 or 2012 and no buildings or structures were identified on-site, no historical resources pursuant to CEQA Guidelines Section 15064.5 exist on the Project Site. Therefore, the Project would not cause any adverse change in the significance of a historical resource. No impacts would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?	☐	☒	☐	☐

Kleinfelder conducted a record search at the South Central Coastal Information Center (SCCIC) on February 6, 2023 which identified two previously recorded cultural resources within 0.5-mile of the Project Site. In February 2023, the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search returned with negative findings. The pedestrian survey found one isolated chert flake (portion of sedimentary rock) on-site. The isolated flake lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated, singular event. Therefore, it is not eligible as a cultural resource under the California Register of Historic Resources (CRHR) or the National Regional of Historic Places (NRHP) under any criteria.

No previously recorded prehistoric or tribal resources were identified on the Project Site. Additionally, since no buildings, structures, or historic-era resources were identified within the Project Site, the Project Site is considered to have a low sensitivity for buried historic-era resources. However, the Project Site is near an intermittent drainage located approximately 0.23-mile east of the Project Site. The proximity to a water source along with the presence of the prehistoric isolated chert flake indicates prehistoric activity in the area. Therefore, the Project Site has a moderate sensitivity for buried pre-historic resources, and impacts would be potentially significant during Project construction and ground-disturbing activities.

To address potential impacts to archaeological resources during Project constriction, the Project would be required to implement **MM CUL-1** and **MM CUL-2**. With implementation of **MM CUL-1** and **MM CUL-2**, the Project's potential impacts archaeological resources would be reduced to less than significant.

[19] Kleinfelder, Cultural Resources Identification Report, June 2023. Appendix D of this IS/MND.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Mitigation Measures

MM CUL-1 Worker Environmental Awareness Program. Prior to the start of ground disturbance, the Permittee shall hire a qualified archaeologist ("Project Archaeologist") to provide the construction crew with on-site training on the proper procedures to follow if cultural resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what such artifacts may look like when partially buried or wholly buried and then freshly exposed, a discussion of what prehistoric and historic-period archaeological deposits look like at the surface and when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and shall be provided to all individuals working on site.

MM CUL-2 Unanticipated Discovery of Cultural Resources. In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

MM CUL-3 Cultural Resources Monitoring. The Project Archaeologist shall be onsite to monitor ground disturbing activities twice a week or as determined by the lead agency in consultation with the consulting tribes referenced in MM TCR-1. Ground disturbing activities include clearing vegetation, grubbing, digging, pavement removal, grading, excavation, trenching, plowing, drilling, blasting, potholing/auguring, and stripping topsoil. The Project Archaeologist shall have the authority to increase or decrease the monitoring effort should the monitoring results indicate that a change is warranted.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

The Project Archaeologist shall consult with the Consulting Tribes (defined below) prior to increasing or decreasing the monitoring schedule. Monitoring requirements shall end once ground disturbing activities are complete.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The Project Site does not include any unique geologic features, and Project implementation would not directly or indirectly destroy a unique geologic feature. The Project Site has been previously disturbed by paving and agricultural activities. While there are no known paleontological resources on the Project Site, undiscovered paleontological resources may be discovered and disturbed during ground-disturbing activities, and impacts may be potentially significant. To address potential impacts to paleontological resources during Project constriction, the Project would be required to implement **MM CUL-4**. With implementation of **MM CUL-4**, the Project's potential impacts paleontological resources would be reduced to less than significant.

Project operation is not anticipated to require ground-disturbing activities. Therefore, no impacts to paleontological resources are anticipated during Project operation.

MM CUL-4 Unanticipated Discovery of Paleontological Resources. Prior to start of ground disturbance, the construction crew shall participate in on-site training on the proper procedures to follow if paleontological resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what paleontological resources may look like when partially buried or wholly buried and then freshly exposed, a discussion of what paleontological resources look like when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 50 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and should be provided to all individuals working on site.

In the event that paleontological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and a qualified paleontologist who meets the Society of Vertebrate Paleontology guidelines shall be contacted immediately to evaluate the resource. If the find is large enough to warrant further evaluation and/or extraction, then the following fossil "discovery" protocol shall be followed:

a) The paleontologist shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

b) The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study, or report.

c) Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

During ground disturbance activities, the Applicant shall submit a letter to the County for the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered.

d) Disturb any human remains, including those interred outside of dedicated cemeteries? ☐ ☒ ☐ ☐

The California Health and Safety Code (HSC) Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation and reburial procedures.

No human remains are known to be present on the Project Site. However, there is a possibility that human remains could be interred underneath the Project Site. Should human remains be encountered during Project construction, the Project would be required to implement **MM CUL-5**. With implementation of **MM CUL-5**, the Project's potential impacts to human remains would be reduced to less than significant.

MM CUL-5 Inadvertent Discovery of Human Remains. If human remains or funerary objects are encountered during construction, all ground disturbance activities within 100 feet of the discovery shall be suspended and the construction manager shall immediately notify the County coroner pursuant to State Health and Safety Code §7050.5. This state code shall be enforced for the duration of the Project. If the human remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission (NAHC). The NAHC shall identify and immediately notify the Most Likely Descendant (MLD) of the deceased Native American. Within 48 hours of being granted access to the site, the MLD shall complete the inspection of the site of the discovery and make recommendations to the Applicant/landowner for the treatment or disposition of the human remains and any associated funerary objects. All measures, as required by the County, shall be implemented under the supervision of the MLD and/or Tribal Monitor.

6. ENERGY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

The Project would increase the demand for energy at the Project Site during construction. The energy needs during Project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy. Construction equipment use and associated energy consumption would be typical for that associated with the construction projects of this size. Thus, the Project's energy consumption during the construction phase would not be considered wasteful, inefficient, or unnecessary.

The Project would not require natural gas at the Project Site during operations. The Project does not include any permanent components that would significantly increase demand for existing sources of energy. The Project would develop a solar energy and BESS facility that would provide a new secure and reliable electricity supply, improve community infrastructure, and support sustainable electricity generation. Project development would provide a clean, reliable resource and include energy storage to help integrate renewable energy sources, reduce dependence on gas-fired generation, eliminate ocean water for cooling, reduce freshwater consumption, and reduce greenhouse gas (GHG) emissions and criteria air pollutant emissions.

The analysis of construction and operational energy consumption is based on CalEEMod version 2022.1.1.21 modeling results for the Project. The Project's estimated energy consumption is based primarily on CalEEMod's default setting for the County and consumption factors provided by SCE, who is the electricity provider for the Project Site. The results of the CalEEMod and energy consumption modeling are included in **Appendix E**. The amount of operational fuel consumption was estimated using CARB Emission Factor 2021 (EMFAC2021) computer program which provides projections for typical daily fuel from CalEEMod. The estimated construction fuel consumption is based on the Project's construction equipment list timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips. Energy consumption associated with the proposed Project is summarized in **Table 6: Project and Countywide Energy Consumption.**

Table 6: Project and Countywide Energy Consumption

Energy Type	Project Annual Energy Consumption	Los Angeles County Annual Energy Consumption[1,2]	Percentage of Countywide Consumption
Construction[4,5]			
Electricity Consumption			
Water[1]	11,452 kWh	68,484,956,280 kWh	<0.00002%
Fuel Consumption[3]			
Diesel	24,992 gallons	532,570,627 gallons	0.0047%
Gasoline	7,051 gallons	3,536,229,368 gallons	0.0002%

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Operations				
Electricity Consumption				
Area[1]	0 kWh	68,484,956,280 kWh		<0.00001%
Water[1]	347 kWh			<0.00001%
Total Electricity	270 kWh			<0.00001%
Fuel Consumption[3]				
Diesel	93 gallons	532,570,627 gallons		0.00002%
Gasoline	0 gallons	3,536,229,368 gallons		0.0000%

Notes:

1. The Project increases in electricity consumption is compared with the total consumption in Los Angeles County in 2022.
2. The Project increases in automotive fuel consumption are compared with the Countywide fuel consumption (projected) in 2025 (start of construction).
3. Countywide fuel consumption is from the CARB EMFAC2021 model.
4. Construction fuel consumption is based equipment and load factors from California Emissions Estimator Model (CalEEMod version 2022.1.1.20).
5. The estimated construction fuel consumption is based on the Project's construction equipment list timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips.

Refer to **Appendix E** for assumptions used in this analysis.

Construction-Related Energy Consumption

During construction, the Project would consume energy in three general forms: (1) the fuel consumed by construction vehicles and equipment; (2) electricity associated with the conveyance of water used for dust control and (3) bound energy in construction materials, such as asphalt, steel, concrete, and pipes. It should be noted that the construction activities would not consume natural gas.

Project construction is anticipated to be completed over a period of up to approximately seven months. Thus, energy consumed during Project construction would be temporary and would not represent a significant demand on energy resources.

Construction Transportation Energy Demand: Fossil fuels such as gasoline and diesel would be consumed during Project construction. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction. VMT associated with transportation of construction materials and construction worker commutes would also result in fuel consumption. Heavy-duty construction equipment associated with construction activities would primarily rely on diesel fuel. It is conservatively assumed that construction workers would travel to and from the Project Site throughout construction in gasoline-powered vehicles.

As shown in Table 6, a total of 24,992 gallons of gasoline and 7,051 gallons of diesel is estimated to be consumed during Project construction. This constitutes percent 0.0047 percent and 0.0002 percent of the County's typical annual gasoline and diesel consumption, respectively. However, this fuel consumption would be short-term and finite, only being consumed over the course of the seven-month construction period. Additionally, some incidental energy conservation would occur during construction through compliance with State requirements and through USEPA and CARB engine emissions standards. These engine emissions

standards require the use of more efficient engines in vehicles and equipment to encourage fuel efficiencies and reduce fuel consumption. Further, idling time of vehicles and equipment will be minimized to limit the amount of fuel consumption while no work is being completed. Therefore, Project construction activities would comply with existing energy standards with regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not be considered wasteful, inefficient, or unnecessary. As such, the Project would have a less than significant impact as it relates to construction transportation energy demand.

Construction Electricity Demand: During construction of the Project, electricity would be consumed to supply and convey water for dust control. As shown in Table 6, a total of approximately 11,452 kWh electricity is anticipated to be consumed during Project construction. Electricity consumed during construction would result in a nominal increase (less than 0.00002 percent) in energy use in the County. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. As such, the demand for electricity during construction would not be considered wasteful, inefficient, or unnecessary. As such, the Project would have a less than significant impact as it relates to construction electricity demand.

Construction Material Energy Demand: The Project-related incremental increase in the use of energy bound in construction materials such as metal, concrete, and manufactured or processed materials would not substantially increase demand for energy compared to overall local and regional demand for construction materials. Additionally, it is noted that there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar projects of this nature. Further, energy consumed to construct a renewable energy project to reduce the State's GHG emissions from energy would not be considered wasteful, inefficient, or unnecessary. As such, the Project would have a less than significant impact as it relates to material energy demand.

Construction Conclusion: As summarized above, energy consumed during construction would result in a nominal increase in energy use in the County. As such, Project construction would have a minimal effect on the local and regional energy supplies. It is noted that construction energy use is temporary and would cease upon completion of construction activities. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction energy consumption would not be inefficient, wasteful, or unnecessary, and impacts would be less than significant.

Operational-Related Energy Consumption

During Project operations, energy would be consumed for multiple purposes, including, but not limited to panel washing and maintenance, BESS HVAC units, and lighting.

Operational Transportation and Fuel Energy Demand: Table 6 provides an estimate of the annual fuel consumed by the Project vehicles traveling to and from the Project Site during operations. During operation, the Project is estimated to generate approximately 20 one-way trips per year for typical O&M activities such as maintenance-related visits and solar panel and inverter washing visits. As a result of these 20 trips per year generated by the Project, the Project would consume approximately 93 gallons of diesel, which represents a 0.00002 percent

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

of the County's diesel use. Additionally, the Project does not propose any unusual features that would result in excessive long-term operational fuel consumption. Consequently, the proposed Project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities. Therefore, Project operations would not result in wasteful, inefficient, or unnecessary fuel consumption. As such, the Project would have a less than significant impact as it relates to transportation and fuel energy demand.

Energy Demand and Generation: During Project operation, the electricity usage for HVAC units, communications equipment, and other typical O&M activities would be minimal and would sufficiently offset by electricity produced by the Project. Additionally, the Project is anticipated to consume approximately 347 kWh for panel washing activities. As shown in Table 6, the Project's operational electricity consumption would constitute less than 0.00001 percent of the County's typical annual electricity consumption. The Project would not require additional energy capacity or supplies. Additionally, as a power-generating facility with solar PV and energy storage, the Project would generate energy that would ease stress on intensive peak or base period electricity demands. Furthermore, the Project would generate a significantly higher amount of energy that will consume.

The Project would provide the County and the State with additional renewable energy sources on previously disturbed land that would assist the State in complying with the Renewable Portfolio Standards (RPS) under Senate Bill (SB) 350 and SB 100. The increase in reliance of renewable energy resources further ensures that new development projects would not result in the waste of the finite energy resources. Therefore, the Project would not cause wasteful, inefficient, and unnecessary consumption of energy during Project operation, and impacts would be less than significant.

Operations Conclusion: As shown in **Table 6**, the Project's operational energy consumption would represent less than 0.00001 percent and 0.00002 percent of Countywide electricity and fuel consumption, respectively. Additionally, the Project would not result in a substantial increase in demand for transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure. Therefore, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy during operations, and impacts would be less than significant.

Decommissioning Related Energy Consumption

At the end of the Project's operational term, the Applicant may determine that the Project Site should be decommissioned and deconstructed. However, due to the lack of available in-depth details on decommissioning at this time, as a worst-scenario analysis, it was assumed that the decommissioning phase would utilize the same amount of energy as the construction phase. As discussed above, impacts related to construction-related energy consumption would be less than significant. As such, energy impacts during Project decommissioning would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ☐ ☐ ☒ ☐

Many of the regulations regarding energy efficiency are focused on increasing the energy efficiency of buildings and renewable energy generation, as well as reducing water consumption and reliance on fossil fuels.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

The Project, which comprises the building of solar PV and BESS, would be part of a sustainable solution to enable increasing amounts of renewable energy-generating sources to be accessed. The County's General Plan and AVAP include the following guiding policies and implementing policies related to energy resources.

- LU 11.1 Encourage new development to employ sustainable energy practices, such as passive solar techniques and/or active solar technologies.
- Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015.
- Policy AQ 3.5: Encourage energy conservation in new development and municipal operations.
- Policy PS/F 6.8: Encourage projects that incorporate onsite renewable energy systems.
- Policy C/NR 12.1: Encourage the production and use of renewable energy resources.
- Policy ED 1.2: Encourage and foster the development of the renewable energy economic sectors.
- Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.
- Goal COS 13: Utility-scale energy production facilities for offsite use that reduce consumption of nonrenewable resources while minimizing potential impacts on natural resources and existing communities.
- Policy ED 1.11: Encourage the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.

The Project would not develop structures or buildings, so the Project would not be required to comply with the policies regarding buildings meeting the State energy efficiency standards. No conflicts with renewable energy or energy efficiency plans would occur. The applicable State plans and policies for renewable energy and energy efficiency include SB 350 and SB 100. As discussed under Checklist Question 6.a above, the Project would provide the County and the State with additional renewable energy sources. Additionally, the Project would support the State's RPS goals of achieving at least 60 percent renewable energy by 2030. Therefore, the Project is supportive of the County's policies and State's goals and would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐

The following geology and soils analysis is primarily based on the Geotechnical Engineering Investigation prepared by Salem Engineering Group, Inc., for the Project (see **Appendix F**).[20]

Fault rupture is the displacement that occurs along the surface of a fault during an earthquake. Based on criteria established by the California Geological Survey (CGS), faults can be classified as active, potentially active, or inactive. Active faults are those that have shown evidence of movement within the past 11,000 years (i.e., during the Holocene Epoch). Potentially active faults are those that have shown evidence of movement between 11,000 and 1.6 million years ago (i.e., during the Pleistocene Epoch). Inactive faults are those that have not exhibited displacement younger than 1.6 million years before the present. Additionally, there are blind thrust faults, which are low angle reverse faults with no surface exposure. Due to their buried nature, the existence of blind thrust faults is usually not known until they produce an earthquake.

The seismically active region of southern California is crossed by numerous active and potentially active faults and is underlain by several blind thrust faults. The CGS has established earthquake fault zones known as Alquist-Priolo Earthquake Fault Zones around the surface traces of active faults to assist cities and counties in planning, zoning, and building regulation functions. These zones identify areas where potential surface rupture along an active fault could prove hazardous and identify where special studies are required to characterize hazards to habitable structures. The Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, impacts related to rupture of a known earthquake fault would be less than significant.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

The Project Site is located within the seismically active Southern California region. For these reasons, the Project Site may be subject to shaking during earthquake events. The level of ground shaking that would be experienced at the Project Site from active or potentially active faults or blind thrust faults in the region would be a function of several factors including earthquake magnitude, type of faulting, rupture propagation path, distance from the epicenter, earthquake depth, duration of shaking, topography, and geology. The closest

[20] Salem Engineering Group, Inc., Geotechnical Engineering Investigation, November 2023. Appendix F of this IS/MND.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

known active fault to the Project Site is the San Andreas fault, located approximately 5.4 miles south of the Project Site, which could produce secondary effects from ground shaking.

Project construction would be required to adhere to applicable regulations in the 2022 California Building Code and County Building Code to minimize seismic-related hazards, because of the Project Site's location in seismically active southern California. Therefore, with compliance with applicable regulations, Project impacts related to seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction and lateral spreading? ☐ ☐ ☒ ☐

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile.

In general, the soils encountered during the Geotechnical Engineering Investigation conducted for the Project Site included silty sands to depths of approximately 10 to 15 feet below site grade (BSG) underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet BSG. Groundwater was not encountered to the depth of exploration conducted on the Project Site. Based on available water well data, historic groundwater depths are greater than 100 feet BSG. Based on the historic depth to groundwater (greater than 100 feet BSG), liquefaction/seismic settlement is not a concern to Project Site development.

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat Project Site topography, the likelihood of lateral spreading is low.

Based on the factors described above, Project impacts associated with seismic-related ground failure, including liquefaction and lateral spreading, would be less than significant.

iv) Landslides? ☐ ☐ ☐ ☒

There are no known landslides at the Project Site, or is the Project Site in the path of any known or potential landslides. The Project Site is relatively flat, ranging from approximately 2,821 to 2,825 feet above mean sea level. Further, the Project Site is not in immediate proximity to any mountains or steep slopes. As such, there is no potential for landslides to occur on or near the Project Site, and the Project would not expose people or structures to potential substantial adverse effects involving landslides. No impact would occur.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

During construction, the Project Site would be subject to ground-disturbing activities. These activities would expose soils for a limited time, allowing for possible erosion. Since Project construction would require greater than one acre of ground-disturbing activities, the Applicant would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP incorporates BMPs in accordance with the California Stormwater Best Management Practices Handbook, to control erosion and to protect the quality of surface water runoff during Project construction.

With respect to soil erosion during Project operations, the potential is relatively low due to the fact that the Project Site would be entirely developed and landscaped. The use of vegetation and groundcover would act as an effective barrier to soil erosion by impeding direct contact between precipitation/irrigation and on-site soils. Moreover, with implementation of operational BMPs per the County's Standard Urban Stormwater Management Plan (SUSMP), erosion of any exposed soil would be controlled, and associated impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

As stated in Checklist Questions 7.a)iii) and -iv), impacts related to liquefaction, lateral spreading, and landslides are considered less than significant.

Subsidence is commonly caused by the removal of subsurface water and underground mining. According to the United States Geologic Survey (USGS) Areas of Land Subsidence in California Map, there is no groundwater pumping, peat loss, or oil extraction at or near the Project Site.[21] The frames of solar modules would be mounted on steel posts, which would be driven or screwed into the ground to a depth between 8 and 10 feet. The Project does not propose any mining activities or removal of subsurface water. Additionally, groundwater was not encountered to the maximum depth of exploration of 21.5 BSG during exploration. The Project would be designed and constructed in accordance with the 2022 California Building Code, as enforced by the County, which includes building foundation requirements appropriate to site-specific conditions. With compliance with the California Building Code, impacts related to unstable geologic units or soils would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Subsurface soils within the Project Site include silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet BSG. An expansion

[21] United States Geologic Survey, Areas of Land Subsidence in California Map, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

index test indicated that the soils have very low expansion potential. With compliance with the California Building Code, impacts related to unstable geologic units or soils would be less than significant.

e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

The Project would be unmanned and does not propose to use septic tanks or alternative wastewater disposal systems. Temporary sanitary systems will be brought in during construction and removed when the Project is operational. Therefore, the Project would not result in impacts related to the use of septic tanks or alternative wastewater disposal systems.

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, Ch.22.104)?	☐	☐	☐	☒

As discussed in Checklist Question 7.a.iv, the Project Site is relatively flat and is not in immediate proximity to any hillsides or steep slopes. Therefore, it would not conflict with County ordinances related to hillside management and design standards, and no impact would occur.

8. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

The following GHG analysis is primarily based on the Greenhouse Gas Emissions Technical Memorandum prepared by Kimley-Horn (see **Appendix G**).[22] The AVAQMD's CEQA and Federal Conformity Guidelines identifies both annual and daily construction significant thresholds for GHG emissions of 100,000 $MTCO_2e$ and 548,000 pounds CO_2e, respectively.[23] The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the Project, the AVAQMD's numeric thresholds are used as the significance thresholds in addition to a qualitative discussion of the Project's compliance with applicable plans, policies, regulations, and requirements.

Project-related GHG emissions are not confined to a particular air basin; instead, GHG emissions are dispersed worldwide. No single project is large enough to result in a measurable increase in global concentration of GHG emissions. Therefore, impacts identified below are not project-specific impacts to global climate change, but the Project's contribution to this cumulative impact. The Project would result in direct and indirect GHG emissions. Direct GHG emissions include emissions from construction and decommissioning activities, and mobile sources, while indirect sources include emissions from energy consumption and water demand. The California Emissions Estimator Model (CalEEMod), version 2022.1.1.21, was used to estimate direct and indirect Project-related GHG emissions.

Construction

The Project would result in direct emissions of GHGs from construction. The approximate quantity of daily GHG emissions generated by Project construction equipment is depicted in **Table 7: Construction-Related Greenhouse Gas Emissions**.

Table 7: Construction-Related Greenhouse Gas Emissions

Category	**$MTCO_2e$**
Construction	329
Water Usage[1]	2.41
Total Construction	331.41
30-Year Amortized Construction	11
Note:	

[22] Kimley-Horn and Associates, Inc., Greenhouse Gas Emissions Technical Memorandum, October 2024. Appendix G of this IS/MND.
[23] Antelope Valley Air Quality Management District, CEQA and Federal Conformity Guidelines, August 2016, Table 6: Significant Emissions Thresholds, https://www.avaqmd.ca.gov/files/e5b34d385/AV+CEQA+Guides+2016.pdf. Accessed April 10, 2025.

1. Construction water usage emissions are based on an anticipated consumption of 13 (AF) during construction. During construction, water is anticipated to be supplied from an off-site source.

Source: CalEEMod version 2022.1.1.21. Refer to **Appendix G** for model outputs.

As shown in Table 7, the Project would result in the generation of approximately 331.4 metric tons of CO_2e ($MTCO_2e$) over the course of construction. Construction GHG emissions are typically summed and amortized over a 30-year period, then added to the operational emissions. The amortized Project construction emissions would be 11 $MTCO_2e$ per year. Once construction is complete, the generation of these GHG emissions would cease.

Operations

Operational or long-term emissions occur over the life of the Project. Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. Total GHG emissions from both construction and operation associated with the Project are summarized in **Table 8: Project Greenhouse Gas Emissions**.

Table 8: Project Greenhouse Gas Emissions

Emissions Source	**Annual $MTCO_2e$**	**Annual CO_2e (ton)**	**Daily CO_2e (pounds)**
Construction	11	12.2	7,917
Operations			
Area Source	19.8	21.8	242.0
Energy	0.0	0.0	0.0
Mobile	56.8	62.6	481
Waste	0.0	0.0	0.0
Water	0.0	0.0	0.0
Decommissioning	11	12.2	7,917
Total Project Emissions	***98.7***	***108.8***	***16,557***
AVAQMD Threshold	--	*100,000*	*548,000*
Exceeds Threshold?	**--**	**No**	**No**

Source: CalEEMod version 2022.1.1.21 Refer to **Appendix G** for model outputs (Annual $MTCO_2e$ and pounds per day).
1 $MTCO_2e$ = 1.10231 tons.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project Site should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements BMPs. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including the fences and the concrete pads that may support the inverters, transformers, and related equipment. The exterior fencing and gates would be removed, and materials would be recycled to the extent feasible. Project roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. The area would be thoroughly cleaned, and all debris removed. A collection and recycling program would be utilized to promote recycling of Project components and minimized disposal in landfills. Decommissioning is expected to take one year or less, using similar equipment and an equal or lower number of workers on a daily basis. As a worst-scenario analysis, it was assumed that GHG emissions related to decommissioning would be equal to the GHG emissions related to construction. This is a conservative (higher) estimate due to GHG emissions from electricity and vehicles are likely to be much lower 30 years in the future due to the continued implementation of existing regulations, plans, and policies.

Total Project-Related Sources of Greenhouse Gas Emissions

As shown in Table 8, the Project would generate approximately 108.8 tons of CO_2e (98.7 $MTCO_2e$) per year and approximately 16,557 pounds per day of CO_2e from construction, operations, and decommissioning. Therefore, the proposed Project's total GHG emissions would be below the AVAQMD thresholds of 100,000 tons CO_2e per year and 548,000 pounds CO_2e per day. Further, the Project is a solar generation and energy storage facility, which would meet regional and federal ambient air quality standards and offset GHG emissions that would otherwise have resulted from producing an equivalent amount of electricity from fossil fuel-fired electric generators. Thus, Project-related emissions would have a less than significant impact related to generation of GHG emissions.

b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Consistency with the Antelope Valley Area Plan

The AVAP includes goals and policies that all new projects are required to comply with, as applicable. Project consistency with the AVAP goals and policies is discussed in **Table 9: Project Consistency with the Antelope Valley Area Plan**. As depicted in Table 9, the Project would be consistent with the AVAP, and impacts would be less than significant.

Table 9: Project Consistency with the Antelope Valley Area Plan

Antelope Valley Area Plan Policy	Project Consistency
Policy LU 5.1: Ensure that development is consistent with the sustainable Communities Strategy adopted in 2012, an element of the Regional Transportation Plan developed by the Southern California Association of Governments.	**Consistent.** The Project is a solar generation and energy storage facility, which would meet regional and federal ambient air quality standards and offset GHG emissions that would otherwise have resulted from producing an equivalent amount of electricity from fossil fuel-fired electric generators. Therefore, the Project would be consistent with this policy.
Policy COS 9: Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.	**Consistent.** The Project would include BMPs to ensure the collection and recycling of modules upon decommissioning to avoid the potential for modules to be disposed of as municipal waste. Therefore, the Project would be consistent with this policy.
Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed**.**	**Consistent.** The proposed Project is a solar PV and energy storage facility that would utilize non-hazardous materials. Therefore, the Project would be consistent with this policy.
Policy COS 10.5: Encourage the development of emerging energy technologies, such as "solar roads".	**Consistent.** The Project would encourage the development of solar generation and energy storage facilities in Los Angeles County. The proposed Project would promote access to clean energy and displace fossil fuel energy production. Therefore, the Project would be consistent with this policy.
Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.	**Consistent.** At the end of the operation of the proposed Project, the Applicant may determine that the Project Site should be decommissioned and deconstructed. The area would be thoroughly cleaned, and all debris removed. A collection and recycling program would be utilized to promote recycling of Project components and minimized disposal in landfills. Therefore, the Project would be consistent with this policy.
Source: Antelope Valley Area Plan, June 2015.	

Consistency with the County's 2015 Community Climate Action Plan (CCAP)

The 2015 County Community Climate Action Plan (CCAP) describes the County's plan for reducing GHG emissions. Project consistency with the CCAP goals and policies is discussed in **Table 10: Project**

Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP). As depicted in Table 10, the Project would be consistent with the CCAP, and impacts would be less than significant.

Table 10: Project Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP)

Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	Project Consistency
BE-3 Solar Installation: Promote and incentivize solar installation for new and existing homes, commercial buildings, carports, and parking areas, water heaters, and warehouses.	**Consistent.** The Project would provide a solar generation and energy storage facility. The proposed Project would promote access to clean energy and help the region meet its RPS goals. Therefore, the Project would be consistent with this policy.
LUT-9 Idling Reduction Goal: Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications.	**Consistent.** The Project may include occasional light- and heavy-duty truck uses for operations and maintenance activities. Truck use associated with the Project would be required to comply with all CARB regulations, including the LCFS and newer engine standards. The Project would produce little waste during Project construction and operations. Therefore, the proposed Project would be consistent with this policy.
LU 12 Electrify Construction and Landscaping Equipment Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.	**Consistent.** The proposed Project would utilize electric equipment wherever feasible during Project construction, operations, and maintenance. Therefore, the proposed Project would be consistent with this policy.
Source: Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	

Consistency with the 2017 and 2022 CARB Scoping Plan

The 2017 and 2022 Scoping Plan identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. Provided in **Table 11: Consistency with the 2017 and 2022 Scoping Plan**, is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Project would be consistent with or exceed reduction actions/strategies outlined in the 2017 and 2022 Scoping Plan. As shown, the Project would be consistent with the 2017 and 2022 CARB Scoping Plan and potential impacts would be less than significant in this regard.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Table 11: Consistency with the 2017 and 2022 Scoping Plan

Actions and Strategies	Project Consistency Analysis
2017 Scoping Plan	
SB 350	
Achieve a 50 percent Renewables Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030.	**Consistent.** The Project includes the construction and operation of a renewable energy generation and storage facility. Therefore, the Project would help the State achieve the RPS goals. As such, the Project would be consistent with SB 350 (and SB 100).
Low Carbon Fuel Standard (LCFS)	
Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.	**Consistent.** This standard applies to all vehicle fuels sold in California including those that could be used in vehicles associated with the Project. The Project would be consistent with this goal.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	**Consistent.** As a solar renewable energy project, the Project would not emit a large amount of CH_4 (methane) emissions. Furthermore, the Project would comply with all applicable CARB and AVAQMD hydrofluorocarbon regulations. As such, the Project would be consistent with the SLCP reduction strategy.
Post-2020 Cap and Trade Programs	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals.	**Not Applicable.** As shown in **Table 3**, the Project is estimated to generate approximately 98.7 $MTCO_2e$ per year, which is below the 25,000 $MTCO_2e$ per year Cap-and-Trade screening level. Therefore, this goal is not applicable to the Project..
2022 Scoping Plan	
AB 1279	
Assembly Bill (AB) 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon	**Consistent.** As a solar renewable project, the proposed Project would promote renewable energy production and would generate less than significant GHG emissions from Project construction and operations. Community and utility-scale solar project with BESS will help the region and State meet its RPS goals and ultimately carbon neutrality. The Project would be consistent with this goal.

capture, utilization, and storage (CCUS) technologies.	
SB 1020	
SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target of 2045 to 2035.	**Consistent.** As a solar renewable energy project, the Project would promote renewable energy production. The Project brings zero carbon energy to the regional supply grid. The Project would be consistent with this goal.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the Project is consistent with applicable plans, policies, regulations and GHG reduction actions/strategies, such as those outlined in the AVAP, CCAP, and 2017 and 2022 Scoping Plan Update, including State laws listed above. Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Thus, the Project would not make a cumulatively considerable contribution to significant cumulative climate change impacts, and impacts would be less than significant.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐

The following hazards and hazardous materials analysis is primarily based on the Phase I Environmental Site Assessment (ESA) prepared by HEI Corporation (see **Appendix H**).[24] Construction would involve short-term use of hazardous substances such as fuels, lubricants, adhesives, and solvents. The potential risk associated with the accidental discharge during use and storage of such construction-related hazardous materials is considered low because the use, storage, transport, and disposal of hazardous materials used in construction of the facility would be carried out in accordance with federal, state, and County regulations. These regulations include those set forth by the Los Angeles County Department of Environmental Health, Cal/OSHA, the California Accidental Release Prevention (CalARP) Program, the California HSC, and the USEPA Hazardous Waste Control Act. Additionally, the Project would implement BMPs pursuant to the NPDES Construction General Permit. Typical construction BMPs include, but are not limited to, watering soil, soil cover of inactive areas, gravel bags, and fiber rolls. Safety Data Sheets (SDSs) for all applicable materials present on the Project Site would be made readily available to personnel as required by the Los Angeles County Department of Environmental Health. During construction, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets, with waste being disposed of at approved sites.

Underground electrical conductors would be installed in trenches at a depth in compliance with the National Electric Code. The conductors would be buried in either a PVC conduit or equivalent. This may include preparing a Business Emergency Contingency Plan and securing a Certified Unified Program Agency (CUPA) Permit for hazardous materials handling and/or hazardous waste generation, as required by the Los Angeles County Department of Environmental Health.

Operation of the Project would include limited chemical use such as lithium ion in the battery structures. The Project is designed to comply with the Los Angeles County Code of Ordinances and Los Angeles County Department of Environmental Health requirements, and all materials would be used in stable applications and contained in accordance with applicable regulatory requirements, which include the Hazardous Materials Transportation Act, International Fire Code, and CCR Titles 22 and 27. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS will be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Following compliance with the applicable regulations, impacts would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☐	☐	☒	☐

[24] HEI Corporation, Phase I Environmental Site Assessment, July 27, 2022. Appendix H of this IS/MND.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

According to the Phase I ESA, there are no recognized environmental conditions associated with the Project Site. Therefore, it is unlikely that development of the Project Site would result in the release of hazardous materials into the environment. See also the discussion in Question 9.a, above, regarding the control of hazardous substances used during construction and operation. Impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive lands? ☐ ☐ ☒ ☐

Nearby sensitive uses include residences south of the Project Site, with the closest one located adjacent to the Project Site. In addition, there are no existing or proposed schools within one-quarter mile of the Project Site. The nearest school is Lancaster High School approximately 20 miles southeast of the Project Site in the City of Lancaster. As described in Checklist Question 9.a, Project operations would involve minimal chemical use and would be required to comply with regional, State, and federal regulations. Furthermore, as there are no existing structures on-site, the Project Site does not pose any hazards related to lead or asbestos. Therefore, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing proposed school. Impacts would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ☐ ☐ ☐ ☒

According to the Phase I ESA, the Project Site is not located on a known site or in the vicinity of a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would result in no impacts associated with hazardous materials sites.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ☐ ☐ ☐ ☒

There are no public airport or public use airports within two miles of the Project Site. The nearest airport is Lloyd's Landing Airport, a private airport located approximately 15 miles northeast of the Project Site in Kern County. The nearest public or public use airport is the Mountain Valley Airport located approximately 23 miles north of the Project Site in Kern County. Therefore, the Project Site is not located within an airport land use plan or within two miles of a public airport or public use airport, and no impact would occur.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Regional access to the Project Site would be provided via SR 138, which is identified as a Primary Disaster Route (Freeway) in the County.[25] Project-related construction activities could temporarily impact street access and traffic flow due to roadway improvements and potential extension of construction activities into the rights-of-way for utility connections, resulting in temporary lane closures. However, Project construction would not require the complete closure of any public streets during construction. Furthermore, signage and flag crews would direct the flow of traffic with the lane closure. Temporary construction activities would not impede use of the streets for emergencies or access for emergency response vehicles. The Project would not interfere with protocol identified in the Los Angeles County Operational Area Emergency Response Plan.[26] Further, the Project design and Project Site access would be reviewed by the LACFD and the Los Angeles County Sheriff's Department (LACSD) to ensure that emergency access would be maintained. Project operations would require minimal traffic that would not impact use of the streets for emergencies or access for emergency response vehicles. Therefore, the Project would not conflict with the County's adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving fires, because the project is located:				
i) within a high fire hazard area with inadequate access?	☐	☐	☒	☐

According to the State of California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone (FHSZ) Map, the Project Site is located in a Local Responsibility Area (LRA) and is not within a Very High FHSZ.[27,28] Project design and Project Site access would adhere to LACFD regulations. Therefore, the Project would not expose people or structures, either directly or indirectly, to a significance risk of loss, injury, or death involving wildland fires because the Project is located within a fire hazard severity area with inadequate access, and impacts would be less than significant.

ii) within an area with inadequate water and pressure to meet fire flow standards?	☐	☐	☒	☐

As part of the County plan review process, the LACFD has requested that a 10,000-gallon water storage tank be kept on-site during Project operation. As no existing infrastructure adjacent to the Project Site would

[25] Los Angeles County Department of Public Works, Disaster Routes with Road District North Los Angeles County, 2012, https://pw.lacounty.gov/dsg/disasterroutes/map/disaster_rdm-North.pdf. Accessed January 4, 2024.
[26] Los Angeles County, Operational Area Emergency Response Plan, 2012, https://ceo.lacounty.gov/wp-content/uploads/2019/12/OAERP-Approved-Adopted-Version-6-19-2012.pdf. Accessed January 4, 2024.
[27] California Department of Forestry and Fire Protection (CAL FIRE), State Responsibility Area Fire Hazard Severity Zones, 2023, https://osfm.fire.ca.gov/media/1hxhnkbu/fhsz_county_sra_11x17_2022_losangeles_2.pdf. Accessed January 4, 2024.
[28] CAL FIRE, Los Angeles County Draft Fire Hazard Severity Zones in LRA, 2011, https://osfm.fire.ca.gov/media/7280/losangelescounty.pdf. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

require water and pressure fire flow standards, and with inclusion of the 10,000 gallon water storage tank, impacts would be less than significant.

iii) within proximity to land uses that have the potential for dangerous fire hazard?	☐	☐	☐	☒

As described in Checklist Question 9.g.i, the Project Site and surrounding area is not within a Very High FHSZ. No impacts would occur.

h) Does the proposed use constitute a potentially dangerous fire hazard?	☐	☐	☒	☐

The Project would construct a solar PV facility and BESS. Project construction activities would be consistent with other construction activities in the region and would not represent an increased fire risk. All construction vehicles and equipment would comply with applicable regulations to limit the potential for malfunction.

Operation of the proposed BESS could potentially cause a fire hazard. The Project would install redundant safety measures, such as hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. Further, pursuant to Los Angeles County Code of Ordinances Title 32, the Project would be required to comply with the California Fire Code. The Project would also be required to comply with the AVAP Policies PS 1.1 through 1.4 and PS 7.1 through 7.3, which require implementation of fire prevention measures, compliance with the California Fire Code, and provision of adequate emergency services and access. Equipment associated with the Project such as transformers, capacitors, electric transmission lines, vehicles, and gas- or electric-powered small hand tools may be potential sources of ignition during construction and operation and maintenance. To address potential fire risks, the Project would comply with the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code. These regulations implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of utility scale BESS. The Project would also implement fire and safety features including hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. Furthermore, the Project Site would be serviced by an on-site access road, which would be designed in accordance with LACFD requirements and accessed by operation and maintenance staff and emergency responders in the event of an emergency. With compliance to the California Fire Code and the AVAP, the Project would not constitute a potentially dangerous fire hazard, and impacts would be less than significant.

Module Level: The first priority in fire safety is to prevent an event from ever occurring and limit the extent of that fire if it does occur. Pursuant to the National and International Fire Codes, the voltages, currents, and temperatures of battery modules would be required to be monitored and controlled 24 hours 7 days a week to ensure every cell remains within its safe operating parameters. These monitoring and control systems are required to transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected. If a module-level system failure is detected, the system automatically controls and isolates individual modules from the rest of the system preventing the conditions that could lead to an event. Furthermore, battery manufacturers must prove that battery modules, if they catch fire, will not cause a fire to propagate to other modules, racks, or other enclosures. As part of this process, manufacturers must show that their batteries can pass rigorous UL 1973 and UL 9540A testing and certification. This testing includes demonstration of adequate system controls and alarms, separations between

equipment, protections such as fire-retardant barriers and coatings, fire suppression systems, and ventilation systems to limit failure to a single battery module.

Container Level: The National and International Fire Codes contain safety standards for construction of battery enclosures include: mounting, elevation of enclosures from the ground, materials, fire resistant barriers as well as requirements addressing insulation, wiring, switches, transformers, spacing and grounding; safety standards for performance, such as tests for temperature, volatility, impact, overload of switches, and an impact drop test; as well as standards for manufacturing, ratings, markings, and instruction manuals. In addition to the many individual standards referenced, a Failure Mode and Effects Analysis (FMEA) must be performed for each system enclosure and requires a test to ensure safe compatibility of the system's parts. The Project would also be equipped with integrated fire and safety systems, such as air cooling/conditioning systems, deflagration, gas-ventilation, gas, heat and smoke detection and alarms, and fire extinguishing and suppression systems within each container.

Site Plan Level: The Project Site layout is designed for operational safety pursuant to California Fire Code requirements, including fire access routes, setbacks, 10,000-gallon water tank for fire department use only, and fire-resistant perimeter walls.

Operational Level: The Project would obtain an operational permit and would be operated in accordance with the California Fire Code's standards for commissioning, inspection, repair, and decommissioning. This will include the creation and implementation of an Emergency Response Plan as required by applicable law that will govern coordination and response to a fire emergency at the Project Site.

Compliance with the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code, as well as inclusion of the Project's fire and safety features, would reduce the potential for a fire event. Implementation of these safety measures would reduce fire risk, and impacts would be less than significant.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐

The following hydrology and water quality analysis is primarily based on the Onsite and Offsite Drainage Report (Drainage Report) prepared by Kimley-Horn (see **Appendix I**).[29] The Project would be required to obtain a NPDES General Permit for Discharges of Storm Water Associated with Construction and Land Disturbance Activities. Compliance with the General Construction Permit requires the development of a SWPPP by a qualified SWPPP developer, the elimination or reduction of non-stormwater discharge off site into storm drainage systems or other water bodies, and the implementation of BMPs throughout the Project construction period. Stormwater BMPs would be required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during Project construction activities. The SWPPP requires a description of the Project Site; identification of sources of sediment and other pollutants that may affect the quality of stormwater discharges; and a list of BMPs to provide sediment and erosion control, waste handling measures, and non-stormwater management. The specific BMPs that would be implemented with the Project would be identified during development of the SWPPP, which would occur concurrently with final Project design and be completed prior to construction. Typical construction BMPs include, but are not limited to, watering soil, soil cover of inactive areas, gravel bags, and fiber rolls. Compliance with the SWPPP would ensure that construction activities would not degrade the surface water quality of receiving waters to levels that would exceed the standards considered acceptable by the Lahontan Regional Water Quality Control Board (LRWQCB) or other regulatory agencies.

Maintenance of the Project would include cleaning, inspections, drive motor repair, tracker repair, electrical connection repair, and panel replacement. Cleaning of the solar panels is expected to be conducted one to four times per year, and water used would not contain any cleaning agents or other additives. No on-site operations and maintenance buildings are proposed, and all facilities would be unmanned. Therefore, the Project would not violate any water quality standards or waste discharge requirements. Impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the projects may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

The Project would obtain construction and operational water by purchasing it from a local purveyor. The Project Site is located within the Antelope Valley Groundwater Basin, which is managed by the Antelope Valley Regional Water Management Group that includes 11 public agencies such as the Antelope Valley-East Kern Water Agency (AVEKWA), City of Palmdale, City of Lancaster, Littlerock Creek Irrigation District, Palmdale Water District, Quartz Hill Water District, and Rosamond Community Services District. The total

[29] Kimley-Horn and Associates, Inc., Onsite and Offsite Drainage Report, September 2024. Appendix I this IS/MND.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

storage capacity is estimated at 68 million to 70 million AF.[30] Natural recharge is estimated at approximately 29,000 to 58,000 AF per year with an annual extraction of approximately 130,000 AF.[31,32] The primary source of recharge to the groundwater basin is runoff from surrounding mountain ranges.

Water services to the Project Site are provided by AVEKWA. AVEKWA obtains potable water from groundwater and imported water, which are sourced from the Antelope Valley Groundwater Basin and the State Water Project, respectively. The Antelope Valley Groundwater Basin was adjudicated in 2015 per the Judgment and Physical Solution for the Antelope Valley Groundwater Adjudication (Judgment), which governs most groundwater pumping in the AVEKWA service area. The Judgement stipulated production rights to each party, and other methods to access additional groundwater rights, such as from imported water return flows. AVEKWA's customers have 12,084 acre-feet per year (AFY) of production rights and have received roughly 12,000 AFY of return flow rights since 2016.[33]

Construction and operational water would be provided by AVEKWA. Water demand during construction would be trucked in and is estimated at 13 AF. Operational water use would be small, estimated at approximately 0.2 AF per year or less. The small amount of water to be used and the large amount of permeable surface within the Project Site would not deplete groundwater supplies or interfere substantially with groundwater recharge such that a net deficit in aquifer volume or a lowering of the local groundwater table level would result. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii) Substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐

[30] Antelope Valley Regional Water Management Group, Antelope Valley Integrated Regional Water Management Plan, 2019, page 2-28, https://pw.lacounty.gov/wwd/avirwmp/docs/finalplan/2019%20Final%20AV%20IRWMP.pdf. Accessed January 5, 2024.
[31] United States Geological Survey, Water-Level Studies in the Antelope Valley and Fremont Valley Groundwater Basins, https://ca.water.usgs.gov/projects/antelope-valley/antelope-valley-study-area.html, Accessed January 5, 2024.
[32] Antelope Valley Regional Water Management Group. Antelope Valley Integrated Regional Water Management Plan, page 2-29.
[33] Antelope Valley-East Kern Water Agency, 2020 Urban Water Management Plan, 2021, https://www.avek.org/files/f2739f83e/AVEK+2020+UWMP_FINAL.pdf. Accessed March 25, 2025.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

As previously mentioned in Checklist Question 10.a, the Project would not result in substantial erosion or siltation, as BMPs would be implemented during construction in compliance with the SWPPP and the General Construction Permit issued for the Project, which would ensure that erosion and siltation do not result in any off-site water quality impacts. Los Angeles County Code of Ordinances Chapter 12.84 requires that the Project implement site design measures, source control, and/or permanent post-construction pollutant and hydro-modification control BMPs to reduce sediment from erosion or siltation to the maximum extent practicable from entering stormwater runoff during operations. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with surface runoff. Furthermore, as described in Checklist Question 10.c.iv, pursuant to the County's LID and hydromodification requirements, the Project would be required to construct retention basins to attenuate assumed increases to peak flow and volume. Additionally, spoils from excavation of the basin would be distributed on-site in a manner that would not substantially alter pre-development drainage patterns. As such, the Project would not substantially alter the existing drainage pattern of the Project Site or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site. Impacts would be less than significant.

iv) Impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk or loss or damage involving flooding?	☐	☐	☒	☐

According to Figure 12.2b of the Los Angeles County General Plan, the Project is not within or in proximity to a County Capital Flood floodplain. According to the Federal Emergency Management Agency (FEMA) Flood Map Service Center and Figure 12.2a of the County General Plan, the Project Site is entirely within Zone X (unshaded). The Project Site is also adjacent to portions of land designated Zone A to the northwest and southeast. Zone X (unshaded) is defined as minimal risk areas outside the 0.2-percent-annual-chance floodplain. Zone A is defined as special flood hazard areas (SFHAs) subject to inundation by the one percent annual chance of flooding with no base flood elevations determined.[34] As the Project is adjacent to areas designated as Zone A, the Drainage Report included analysis of the Project's potential impacts to on-site and off-site runoff flows and discharge volumes. According to the Drainage Report, post-development peak flow rates for a 50-year storm event would exceed those of pre-development conditions by 41,690 cubic feet. Pursuant to the County's LID and hydromodification requirements, the Project would be required to construct retention basins capable of retaining 42,336 cubic feet of flow to attenuate assumed increases to peak flow and volume.

As the volume of the proposed retention basin is greater than the proposed change in peak flow rates, installation of the retention basin would attenuate peak runoff flows. Therefore, no increase in runoff flow rates or discharge volumes would be anticipated from pre-development to post-development conditions up to the 50-year storm event. Furthermore, Project equipment would be designed such that it is at least 12 inches above the base flood elevation (BFE) and therefore would be designed in a manner so as not to add or decrease baseline stormwater on- or off-site. Additionally, the Project would include a 10-foot landscape buffer along the perimeter of the Project Site to reduce potential Project impacts on flood flows. With

[34] Federal Emergency Management Agency (FEMA), FEMA Flood Map Service Center, https://msc.fema.gov/portal/home. Accessed January 5, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

implementation of these measures, the Project would not significantly impede or redirect flood flows, and impacts would be less than significant.

d) Otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements?	☐	☐	☒	☐

As discussed in Checklist Question 10.c.iv, the Project Site is not located within or near a County capital Flood floodplain area but is located adjacent to Federal 100- year flood hazard areas. The Project would be required to construct an on-site retention basin that would contain peak runoff flows for the 50-year storm event. Construction of the proposed retention basin would result in no increase in runoff or flow rates or discharge volumes for the 50-year storm event. Additionally, Project equipment would be designed such that it is at least 12 inches above the BFE, and a 10-foot landscape buffer would be located along the perimeter of the Project Site. Implementation of these measures would sufficiently reduce the risk of damage due to flooding. No additional flood proofing or flood insurance would be required for the proposed Project, and impacts would be less than significant.

e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 22, Ch. 12,84)?	☐	☐	☒	☐

The Project would be required to comply with the Los Angeles County LID Ordinance, which is intended to promote sustainability and improve the County's watersheds by preserving drainage paths and natural water supplies to "…retain, detain, store, change the timing of, or filter stormwater or runoff." As described in Checklist Question 10.c, implementation of the Project would not substantially change drainage patterns, the amount of runoff, and the square footage of impervious surfaces compared to those under existing conditions. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with surface runoff. As such, the Project would not conflict with the Los Angeles County LID Ordinance. Impacts would be less than significant.

f) Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?	☐	☐	☐	☒

As mentioned above, the Project would be unmanned during operations, with no habitable structures or restroom facilities. Temporary sanitary facilities would be placed on-site during construction and removed upon operation. Any operational water that may be required for routine maintenance would be trucked in from off site. The Project would therefore not construct on-site wastewater treatment systems, and no impact would occur.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

The Project Site is located approximately 55 miles from the Pacific Ocean and is therefore not at risk of tsunami. As described in Checklist Question 10.c.iv, the entire Project Site is within Zone X (unshaded) but is adjacent to areas designated Zone A by FEMA. Furthermore, according to the California Division of Safety of Dams Dam Breach Inundation Map Web Publisher, the Project Site is not within an area of dam breach inundation.[35] Therefore, the Project would not release pollutants due to Project inundation, and no impact would occur.

h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

As mentioned above, the Project would be unmanned during operations, with no habitable structures or restroom facilities. Any operational water that may be required for routine maintenance would be trucked in from off site. The majority of the Project would be vegetated and remain pervious to allow infiltration of precipitation. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with groundwater recharge. As a result, the Project would not conflict with or obstruct implementation of the Antelope Valley Integrated Regional Water Management Plan or a future water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.

[35] California Department of Water Resources Division of Safety of Dams, Dam Breach Inundation Web Publisher, https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2. Accessed January 4, 2024.

11. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

Existing development in the area includes rural access roads and sparce rural residences. The Project Site is located in an unincorporated part of the County, and the Project Site is primarily bordered by undeveloped vacant land. Therefore, the Project would not divide an established community. No impact would occur.

b) Cause a significant environmental impact due to a conflict with any County land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

The Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The current land use designation for the Project Site is RL10 and is zoned A-2-2. Per the Area Plan Rural Preservation Strategy Map, the Project Site is located within the "Rural Preserve Area," which are generally defined as areas of the unincorporated Antelope Valley that are largely undeveloped and generally not served by existing infrastructure and public facilities. According to the General Plan, renewable energy production facilities, like the Project, are "allowed in Rural Land designations without a Plan Amendment." As mentioned in Checklist Question 2.b, the Project is also within an Agricultural Resource Area designated by the AVAP. The Project is considered as a "utility scale solar facility," which requires a CUP in the A-2 Zone pursuant to Los Angeles County Code of Ordinances Section 22.16.030.[36] As described in other sections, the Project would be consistent and would not conflict with relevant policies of the County's General Plan; AVAP (including the Land Use Element, Mobility Element, Conservation and Open Space Element, Public Safety, Services, and Facilities Element, and Economic Development Element of the AVAP); and the Los Angeles County Code of Ordinances, including the development standards of the Los Angeles County Renewable Energy Ordinance (Section 22.140.510) for fencing, height, lighting, setbacks, and landscaped buffers requirements.

The AVAP represents a comprehensive vision for growth within the Area Plan area, which encompasses the Antelope Valley region of Los Angeles County. As a component of the Los Angeles County General Plan, the AVAP refines the countywide goals and policies in the General Plan by addressing specific issues relevant to the region. The vision for the AVAP includes creating a pattern of development that reinforces the region's small-town and rural feel. The Project Site would allow for the proposed solar PV and BESS uses, and the Project would not seek to rezone the Project Site. Upon decommissioning of the Project, the Project Site could fully restore the property as defined in the Project's Decommissioning Plan. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project's Decommissioning Plan. Furthermore, the Project Site is not located within an SEA, Economic Opportunity Area, or Community Standards District outlined by the AVAP. Therefore, the Project would

[36] Los Angeles County Code of Ordinances, Title 22 – Planning and Zoning, Division 7 – Standards for Specific Uses, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO_DIV7STSPUS. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

not conflict with the County's General Plan, the AVAP, or the Los Angeles County Code of Ordinances, and impacts would be less than significant.

c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas?	☐	☐	☐	☒

Hillside Management Areas (HMAs) are defined as areas with 25 percent or greater natural slopes. The Project Site is not located within a Hillside Management Area. The Project Site is also not within a SEA. Therefore, no impact would occur.

12. MINERAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

According to Map 4.4 of the AVAP, the Project Site is not located within a Mineral Resource Zone (MRZ).[37] According to the California Department of Conservation Mines Online map, the closest active mine is the La Liebra mine (ID 91-15-0045), an open pit sand and gravel mine that is located approximately 9.5 miles northwest of the Project Site.[38] Furthermore, according to the California Department of Conservation Well Finder, there are no active oil or gas wells on or around the Project Site.[39] The closest well to the Project Site is a plugged dry hole approximately 1.8 miles north of the Project Site. Due to the relative distance from any active mining sites, the Project would not result in the loss of availability of mineral resources that would be of value to the region and the residents of the State. No impact would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

As mentioned above in Checklist Question 12.a, the Project Site is not located in a MRZ. Additionally, the Project does not involve extensive grading or excavation that would preclude the extraction of any potential mineral resources in the future. No impact would occur.

[37] Los Angeles County, AVAP, Map 4.4.
[38] California Department of Conservation Division of Mine Reclamation, Mines Online, 2016, https://maps.conservation.ca.gov/mol/index.html. Accessed January 5, 2024.
[39] California Department of Conservation Geologic Energy Management Division, Well Finder, https://maps.conservation.ca.gov/doggr/wellfinder/. Accessed January 5, 2024.

13. NOISE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project result in:				
a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☐	☐	☒	☐

The following noise analysis is primarily based on the Noise Technical Memorandum prepared by Kimley-Horn (see **Appendix J**).[40]

Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation). Noise would be generated by construction equipment, including earth movers, and material handlers. During construction, exterior noise levels could affect the nearest sensitive receptors in the vicinity of the construction site. The nearest sensitive receptor is a residential use located approximately 110 feet to the south of the Project Site. However, construction activities would occur throughout the Project Site and would not be concentrated at the point closest to the sensitive receptor.

Project construction is anticipated to be completed over a period of approximately seven months. The Project involves construction activities associated with demolition, site preparation, grading, construction/installation, PV panel vendor trips, and paving (road access installation). **Table 12: Typical Construction Noise Levels** reflects maximum sound levels (L_{max}) that could be expected from the equipment-types listed at a reference distance of 50 feet from the noise source, which are the highest individual sound occurring at an individual time period. Operating cycles for the listed types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other sources of construction noise could include random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Table 12: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source (L_{max})
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88

[40] Kimley-Horn and Associates, Inc., Noise Technical Memorandum, April 2025. Appendix J of this IS/MND.

Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Mounted Impact Hammer (hoe ram)	90
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scraper	85
Shovel	82
Truck	84
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018; Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.	

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to calculate the worst-case construction noise levels at the nearest sensitive receptor in the vicinity of the Project Site during construction. The modeled receptor location represents the closest existing receiving land use to Project construction activities. Noise levels at other sensitive receptors surrounding the Project Site would be located further away and would experience lower construction noise levels than the closest receptors modeled.

The Los Angeles County Code of Ordinances establishes quantitative construction noise standards. Construction activities should not exceed those listed in Los Angeles County Code of Ordinances Section 12.08.440 Construction Noise. The Ordinance sets forth a threshold of s. Under the Ordinance, construction activities also shall be limited to the daytime hours of 7 a.m. to 8 p.m. Monday through Saturday. Construction is prohibited on Sundays and on Holidays. Since construction equipment would move throughout the Project Site during each of the construction phases, the mobile equipment threshold of 75 dBA was used for this analysis.

The noise levels calculated in **Table 13: Project Construction Noise Levels** show estimated noise levels for the worst-case construction noise scenario without accounting for attenuation from intervening barriers, structures, or topography. The nearest noise sensitive receptor (residential use) is located approximately 110 feet to the south of the Project Site. Following the Federal Transit Administration (FTA) methodology, when calculating construction noise, all equipment is assumed to operate at the center of the Project Site because equipment would operate throughout the Project Site and not at a fixed location for extended periods of time. Therefore, the distance used in the RCNM model for the Project Site was 718 feet for the nearest sensitive receptor (i.e., residential use) to the center of the Project Site.

Other receptors in the Project vicinity would be located further away and would experience lower construction noise levels than the closest receptor modeled. All construction equipment was assumed to operate simultaneously to represent a worst-case noise scenario as construction activities would routinely be spread throughout the construction site and would operate at different intervals.

Table 13: Project Construction Noise Levels

Construction Phase	Land Use	Receptor Location			Noise Threshold[2] (dBA L_{eq})	Exceeded?
		Direction	Distance (feet)[1]	Worst Case Modeled Exterior Noise Level (dBA L_{eq})		
Demolition	Residential	South	718	63.3	75	**No**
Site Preparation	Residential	South	718	58.9	75	**No**
Grading	Residential	South	718	59.2	75	**No**
Construction/Installation	Residential	South	718	71.8	75	**No**
PV Vendor Trips	Residential	South	718	56.9	75	**No**
Paving	Residential	South	718	49.9	75	**No**

1. Per the methodology described in the FTA *Transit Noise and Vibration Impact Assessment Manual* (September 2018), distances are measured from the nearby sensitive receptor property line to the center of the Project construction site.
2. The Los Angeles County Code of Ordinances Section 12.08.440 Construction Noise establishes a threshold of 75 dBA for residential uses.

Source: Federal Highway Administration, Roadway Construction Noise Model, 2006. Refer to **Appendix J** for noise modeling results.

As depicted in Table 13, the closest sensitive receptor could be exposed to temporary and intermittent noise levels up to 72 dBA during the overlap of Construction/Installation, which would not exceed the County's residential construction noise standard of 75 dBA L_{eq}. As previously noted, noise levels presented in Table 14 are conservative, as these noise levels assume the simultaneous operation of all construction equipment at the same precise location. More likely, construction equipment would be used throughout the Project Site and would not be concentrated at the point closest to the nearest sensitive receptor. Therefore, impacts would be less than significant.

Construction Traffic: Construction activities would also cause increased noise along access routes to and from the Project Site due to movement of equipment and workers, as well as hauling trips. Grading at the Project Site would be balanced on-site and no import or export of soil is anticipated. It is anticipated that construction worker trips would be a maximum of 41 total daily trips, water truck trips from off-site wells would be a maximum of 11 daily trips, and vendor trips would be a maximum of 2 daily trips (PV panel vendor trips). As a result, mobile source noise would increase along access routes to and from the Project Site during

construction. However, mobile traffic noise from construction trips would be temporary and would cease upon completion of Project construction. Further, construction activities would be limited to the daytime hours of 7 a.m.to 8:00 p.m. Monday through Saturday and prohibited on Sundays and on Holidays. Therefore, upon compliance with the County's allowable construction hours, short-term noise impacts from construction traffic would be less than significant.

Operations

Operation and maintenance of the Project would include permanent and temporary noise sources associated with the solar PV systems, electrical collection lines, gen-tie power lines, BESS, and maintenance activities. For purposes of this analysis, noise regulations included in the Los Angeles Code of Ordinances have been utilized.

Solar PV Systems: The solar PV arrays would include operation of single-axis tracking systems. Single-axis tracking systems employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise.

Noise from the tracker motor is approximately 40 dBA at 10 feet from the source. During daylight hours, the tracking system motors would operate for a short period of time (normally two seconds) and pause for a longer period of time (about five minutes) before operating again. After sunset and before sunrise the next day, the array must reset to face easterly; this reset motion occurs once daily and takes approximately three minutes. The nearest sensitive noise receptor to any tracker would be the residential use located approximately 110 feet to the south of the Project Site. At this distance, noise levels associated with solar PV array tracker would be inaudible. Impacts would be less than significant.

Inverters and Transformers: Additional permanent noise sources from the Project Site would include small-scale inverters, AC combiner boxes, medium voltage transformers, and/or medium voltage switchgear. Small-scale inverters typically generate 65 dBA at 1 meter (3.28 feet) and medium voltage transformers typically generate 63 dBA at 1 meter (3.28 feet). The inverter, transformer, and switchpad would be located within the center portion of the Project Site. As the nearest sensitive receptor could be located as close as 110 feet south from the Project's fence line, small-scale inverter and medium voltage transformer noise levels would be inaudible at the nearest sensitive receptor.

Electrical Collection Lines: The Project includes installation of collection lines. Therefore, noise levels associated with electrical collection lines would be inaudible at the nearest sensitive receptor, which is located approximately 110 feet to the south of proposed collection lines. Impacts would be less than significant.

Battery Energy Storage System (BESS): The primary noise source associated with BESS operations would be the use of heating, ventilation, and air conditioning units (the BESS does not generate noise itself). The Project includes a BESS, which would require multiple heating, ventilation, and air conditioning units to operate simultaneously. Standard HVAC units for similar energy storage projects produce 52.3 dBA at a distance of 50 feet during full operation. The BESS would be located in the southwest area of the Project Site. Therefore, a distance of 130 feet, measured from the nearest BESS unit at the southwest corner of the Project Site to the nearest sensitive receptor was used for the calculated BESS HVAC noise levels. At this distance, noise levels

from the BESS HVAC units are estimated at approximately 44.0 dBA. Therefore, the Project would not exceed County daytime or nighttime noise standards of 50 dBA and 45 dBA, respectively. Impacts would be less than significant.

Maintenance Activities: The Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities and would not increase personnel daily trips external to the site when compared to existing conditions. Project maintenance activities would include 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips). These activities are not expected to occur on a daily basis and would not generate a significant amount of traffic or create a substantial increase of vehicular noise in the area. Any increase in traffic would be minimal and sporadic; therefore, impacts from vehicular noise would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities would result in a temporary increase in ambient noise levels in the Project vicinity. Given the fact that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable to assume that noise generated from decommissioning activities would be similar in nature to construction activities. Similar to the construction noise analysis above, Project decommissioning would potentially result in increased noise levels compared to existing conditions. However, the Los Angeles County Code of Ordinances, states that construction activities shall be limited to the daytime hours of 7 a.m. to 8 p.m. Monday through Saturday and construction is prohibited on Sundays and on Holidays. Noise associated with decommission also would be expected to fall below the County's construction noise threshold of 75 dBA, as discussed above. Therefore, upon compliance with the County's allowable construction hours; short-term noise impacts from decommissioning activities would be less than significant.

b) Generate of excessive ground borne vibration or groundborne noise levels? ☐ ☐ ☒ ☐

Project construction would include demolition, site preparation, grading, construction/installation, PV vendor trips, and paving (access road installation) but would not require blasting. While these construction activities would result in groundborne vibration, such groundborne vibration would attenuate rapidly from the source and would not generally be perceptible beyond the boundaries of the Project Site.

The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 inches per second [in/sec]) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. Caltrans and the FTA have identified various vibration damage criteria for different building classes. As the closest receptor is a residential use, this evaluation uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 in/sec peak particle velocity (PPV) and the human annoyance criterion of 0.04 in/sec PPV. The vibration produced by

construction equipment is illustrated in **Table 14: Typical Vibration Levels for Common Construction Equipment**.

Table 14: Typical Vibration Levels for Common Construction Equipment.

Equipment	Reference PPV at 25 feet (in/sec)	Approximate PPV at 110 feet (in/sec)[1]
Vibratory Compactor/Roller	0.210	0.023
Large bulldozer	0.089	0.010
Loaded trucks	0.076	0.008
Small bulldozer	0.003	<0.001

Notes:
1. Calculated using the following formula:
   PPV equip = PPV_{ref} x $(25/D)^{1.5}$
   where: PPV (equip) = the peak particle velocity in inch-per-second of the equipment adjusted for the distance
   PPV (ref) = the reference vibration level in inch-per-second from Table 7-4 of the FTA Transit Noise and Vibration Impact Assessment Manual
   D = the distance from the equipment to the receiver

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Groundborne noise and vibration decreases rapidly with distance. As indicated in Table 14, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from <0.001 to 0.023 in/sec PPV at 110 feet from the source of activity. The nearest noise-sensitive receptor to the Project Site is a residence located approximately 110 (measured from the edge of construction activity to the nearest structure) feet to the south of the Project Site boundary line. At these distances, vibration velocities would be imperceptible (i.e., up to 0.023 in/sec PPV for a vibratory roller at the Project Site). Therefore, the 0.2 in/sec PPV architectural damage significance threshold and the 0.04 in/sec PPV human annoyance criteria would not be exceeded as a result of Project construction activities. Thus, no sources of groundborne vibration or groundborne noise would be expected to affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

Operations

The Project would have operation and maintenance components, such as HVAC systems for the BESS, maintenance vehicles, small-scale inverters, and medium voltage transformers, that would not generate noticeable groundborne vibration levels. Project operations would not involve any sources capable of generating perceptible levels of vibration in the surrounding area. There would be no permanent source or potential to change vibration levels, except during unscheduled maintenance or repair activities, which would be similar to construction activities. Regular maintenance trucks could generate 0.076 in/sec PPV a distance of 25 feet (refer Table 14). Pursuant to the FTA, Transit Noise and Vibration Impact Assessment Manual, groundborne vibration should not exceed 0.2 in/sec PPV at the nearest property line within a residential, commercial, and industrial land use zoning district. Land use zoning districts surrounding the Project Site include Heavy Agriculture Zoning (A-2-2), which allow residential uses. Although residential land use zoning

districts surround the Project Site, regular maintenance trucks would not generate groundborne vibration levels exceeding the FTA's 0.2 in/sec PPV vibration threshold at the Project Site boundary. As the nearest vibration-sensitive receptor is located approximately 110 feet from the Project Site (measured from the edge of construction activity to the nearest structure) and structures in the Project area are not located nearer than 25 feet to roadways, operational vibration levels at the nearest off-site receptors would be imperceptible. Thus, the FTA's 0.2 in/sec PPV vibration threshold would not be exceeded, and impacts would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities could result in temporary vibration impacts at close distances. Given that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, vibration generated from decommissioning activities would be similar in nature to construction activities. As with the construction activities described above, decommissioning activities would not be expected to generate groundborne noise that would affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

As discussed in Checklist Question 9.e, there are no public airport or public use airports within two miles of the Project Site. No impacts would occur.

14. POPULATION AND HOUSING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

The Project would develop a solar energy facility with BESS and does not include residential uses. The Project would not induce substantial population growth in the area because the Project does not propose extension of new major infrastructure or uses that would induce substantial unplanned population growth.

Project construction would temporarily increase the number of persons present at the Project Site, with the on-site construction workforce expected to peak at approximately 50 people. However, these workers would only be present at the Project Site during construction of the Project Site. Once operational, the Project Site would not require the same amount of staff needed during construction. The Project Site would be unmanned and would only require minimum staff for inspection and maintenance and would not introduce a significant amount of employment that would require additional permanent housing within the area. Impacts would be less than significant.

b) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The Project would not displace housing as the Project Site consists of undeveloped vacant land. The nearest residence is located approximately 110 feet south of the Project Site. This residence would not be impacted by the Project as construction and operation of the Project would be contained entirely within the boundaries of the Project Site. The Project would not displace off-site housing, and no impact would occur.

15. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐

Fire protection and prevention services are provided by the LACFD. The closest LACFD station to the Project Site is LACFD Station 112 located at 8812 W Avenue E 8, approximately 14 miles east of the Project Site. The entire LACFD is staffed with a total of 228 engine companies, 34 truck companies, 112 paramedic units, and numerous other specialized apparatuses.[41]

Construction

The Project would construct a solar PV facility and BESS on fallow land and would not involve the construction or physical alteration of a fire station. Construction activities associated with the Project may temporarily increase the demand for fire protection and emergency medical services, and may cause the occasional exposure of combustible materials, such as plastics, sawdust, covering and coatings, to heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings. However, in compliance with Cal/OSHA, all construction managers and personnel would be trained in fire prevention and emergency response. Furthermore, fire suppression equipment specific to construction would be maintained on the Project Site. Further, pursuant to Los Angeles County Code of Ordinances Title 32, the Project would be required to comply with the California Fire Code. As applicable, construction activities would be required to comply with AVAP Policies PS 1.1 through 1.4 and PS 7.1 through 7.3, which require implementation of fire prevention measures; as well as the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code, which implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of BESS. The Project would also be required to comply with Energy Storage Standard UL 9540 and UL 9540a, and applicable NFPA standards.

Project-related construction activities could temporarily impact street access and traffic flow due to roadway improvements, and potential extension of construction activities into the rights-of-way along 230th Street W for utility connections and construction of the proposed access roads, resulting in the temporary closure of the lane closest to the Project Site. However, Project construction would not require the complete closure of any public streets during construction. Furthermore, signage and flag crews would direct the flow of traffic with the lane closure. Temporary construction activities would not impede use of the streets for emergencies or access for emergency vehicles. Further, the Project design and Project Site access would be reviewed by LACFD to ensure that emergency access would be maintained. During temporary partial street closure, emergency access and traffic detours would be established in coordination with the County.

[41] Los Angeles County Fire Department, Los Angeles County Fire Department 2022 Strategic Fire Plan, 2022, https://osfm.fire.ca.gov/media/ugwfw535/2022-los-angeles-county-unit-fire-plan.pdf. Accessed January 6, 2024.

	Less Than Significant		
Potentially Significant Impact	*Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Due to the limited duration of construction activities, maintenance of emergency access, and compliance with applicable codes, Project-related construction would not be expected to adversely impact firefighting and emergency services so as to necessitate a new or expanded fire station in order to maintain acceptable service ratios, response times, or other performance objectives of the LACFD. Therefore, construction impacts on fire protection and emergency medical services would be less than significant and no mitigation measures are required.

Operation

The Project would be a solar PV and BESS facility that would not induce significant or unplanned population growth such that there would be a need for new or physically altered fire protections or emergency services. Further, as mentioned in Checklist Question 9.h, the BESS will be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code; Energy Storage Standard UL 9540 and UL 9540a; National Fire Protection Association (NFPA) standards; AVAP Policies PS 1.1 through 1.4 and PS 7.1 through 7.3, which require implementation of fire prevention measures; as well as the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code, which implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of BESS. Compliance with applicable international, federal, State, and local regulations, as well as inclusion of the Project's fire and safety features, would reduce the potential for a fire event. Therefore, the Project would maintain acceptable service ratios, response times, and other performance objectives for fire protection services. Impacts to fire protection would be less than significant.

Sheriff protection? ☐ ☐ ☒ ☐

The Project Site is served by the LACSD. The nearest LACSD station is in the City of Lancaster at 501 W Lancaster Boulevard, approximately 23 miles southeast of the Project Site.

Construction

Since the daytime population generated at the Project Site during construction (i.e., construction workers) would be temporary in nature, construction of the Project would not generate a permanent population on the Project Site that would substantially increase the demand for police services. However, construction sites can be sources of nuisances and hazards and invite theft and vandalism. When not properly secured, construction sites can contribute to a temporary increased demand for police protection services. As such, during Project construction, the Project Site would be fenced or screened along the perimeter to minimize trespassing, vandalism, short-cut attractions and attractive nuisances.

Project-related construction activities could temporarily impact street access and traffic flow due to roadway improvements, and potential extension of construction activities into the rights-of-way along 230th Street W for utility connections and construction of the proposed access roads, resulting in the temporary closure of the lane closest to the Project Site. However, Project construction would not require the complete closure of any public streets during construction. Furthermore, signage and flag crews would direct the flow of traffic with the lane closure. Temporary construction activities would not impede use of the streets for emergencies or access for police vehicles. Further, the Project design and Project Site access would be reviewed by the LACSD to ensure that emergency access would be maintained. During temporary partial street closure, emergency access and traffic detours would be established in coordination with the County.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Given the visibility of the Project Site from adjacent roadways and surrounding properties, existing police presence in the County, maintained emergency access, and construction fencing, the Project's construction activities are not expected to increase demand on existing police services to an extent that a new police facility would be required. Therefore, construction of the Project would have a less than significant temporary impact on police protection.

Operation

During Project operations, the Project would be unmanned, remotely monitored, and fenced for security. As previously stated, the Project would not introduce additional permanent residences to the Project Site that would require increased demand for public services including police protection. Furthermore, the Project Site would be serviced by an on-site access road, which would be accessed by operation and maintenance staff and emergency responders in the event of an emergency. Therefore, the Project would not substantially impact service ratios, response times, or other performance objectives related to police protection. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services. Impacts would be less than significant.

Schools? ☐ ☐ ☐ ☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be sourced from the County or surrounding counties and/or be active for only a few months. During operations, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Employees would be traveling from an existing area to the Project, and would not require expansion of public services, including expanding school services to the area to service new residences. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools. As such, the Project would not result in an increase in population in the area that would necessitate additional schooling services. No impacts would result from the Project.

Parks? ☐ ☐ ☐ ☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be active only for the duration of the construction phase. During operations, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Staff would be traveling from an existing area to the Project. As such, the Project would not result an increase in population into the area that would necessitate additional park services. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks. There would be no impact in this regard.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Libraries?	☐	☐	☐	☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be active only for the duration of the construction phase. During operations, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Staff would be traveling from an existing area to the Project. As such, the Project would not result an increase in population into the area that would necessitate additional library services. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for libraries. There would be no impact in this regard.

Other public facilities?	☐	☐	☐	☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area. As such, the Project would not cause an increase in population in the area that would necessitate addition of other public facilities such as hospitals, and most employees would likely visit hospitals near their homes. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities such as hospitals or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities such as hospitals. There would be no impact in this regard.

16. RECREATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

The Project involves construction of a solar PV facility in a rural area of unincorporated Los Angeles County. No public parks or recreational facilities are in the vicinity of the Project Site. The Project does not propose any residential uses that may increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. The Project would include additional employment during construction. However, the employees would only be present during the construction phase. As discussed in Checklist Question 15 above regarding Parks, the Project would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Employees would be traveling from an existing area to the Project and therefore, would not require expansion of any parks or recreational facilities. Therefore, the construction or expansion of recreational facilities would not have an adverse physical effect on the environment. No impacts would occur.

c) Would the project interfere with regional trail connectivity?	☐	☐	☐	☒

The Project Site is in an agricultural area with limited tall or dense development in the vicinity. As stated in Checklist Question 1.b, according to the Los Angeles County General Plan, there are no regional trails near the Project Site. The closest trail is the Pacific Crest Trail approximately 5.7 miles west of the Project Site at the trail's closest point. Given distance between the Project Site and the Pacific Coast Trail, the Project Site would not interfere with the trail. There would be no impacts on this trail or other regional multi-use trails.

17. TRANSPORTATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycles, and pedestrian facilities?	☐	☐	☒	☐

Construction

Automobile and truck traffic volumes associated with Project-related construction activities would vary throughout the construction phases, as different activities occur. It is anticipated that construction worker trips would be a maximum of 41 total daily trips, water truck trips would be a maximum of 11 daily trips, and vendor trips would be a maximum of 2 daily trips (PV panel vendor trips). All construction activities would be staged within the Project Site, apart from the construction of an access road via 230th Street W into the Project Site that would encroach onto the existing right-of-way. At times in which the access road is constructed, the lane closest to the Project Site may have to be temporarily closed. However, during temporary partial street closure, emergency access and traffic detours would be established in coordination with the County. Additionally, Project-related construction traffic would be temporary and cease upon construction completion. Construction traffic associated with the Project would have a less than significant impact.

The Los Angeles County General Plan's Mobility Element discusses the County's goals to create a balanced transportation system that serves bicyclists and pedestrians as well as motor vehicles. Additionally, the AVAP's Mobility Element discusses goals and policies to create a balanced, multi-modal transportation system across Antelope Valley. Regional access to the Project Site is provided via SR 138 to the south of the Project Site. 230th Street W is a two-lane roadway adjacent to and west of the Project Site. There are no existing pedestrian sidewalks or bicycle facilities along 230th Street W. The Project's trips during construction would not impact the generally free-flowing traffic that characterizes the SR 138 segments south and east of the Project Site, respectively. The Project does not propose any modifications to any pedestrian or bicycle facilities and would not interfere with any future plans as none are located in the Project vicinity.

Public transit service is provided by the Antelope Valley Transit Authority (AVTA).[42] The AVTA 9 Route goes through the urbanized areas of the Antelope Valley region but does not travel near the Project Site. No public transit stations are located in close proximity to the Project Site. The nearest public bus transit stops are provided at the station on 60th Street, approximately 17 miles southeast of the Project Site. Project construction would be temporary in nature and would not result in any road closures and therefore would not affect public transit service operation. Therefore, construction of the Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

Operation

Project maintenance activities would include facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and

[42] Antelope Valley Transit Authority, Local Transit Service, https://www.avta.com/userfiles/files/System-Map-2021.pdf. Accessed January 6, 2024.

periodic panel and inverter washing. It is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips). These activities are not expected to occur on a daily basis and therefore would not generate a significant amount of traffic in the area.

Similar to Project construction, the Project's trips during operation would not impact the generally free-flowing traffic that characterizes the SR 138 segments south of the Project Site. The Project does not propose any modifications to any pedestrian or bicycle facilities, and would not interfere with any future plans as none are located in the Project vicinity. Additionally, as discussed above, no public transit stations are located in close proximity to the Project Site, Therefore, Project operation would not affect public transit service operation. Therefore, the proposed Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

Decommissioning

At the end of the life of the Project (approximately 35 years), the Project would be decommissioned and removed from the Project Site. The Project Site would then be converted to other uses in accordance with applicable land use regulations in effect at that time. All decommissioning and restoration activities would adhere to the requirements of the appropriate governing authorities and would be in accordance with all applicable federal, State, and County regulations. Impacts would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)? ☐ ☐ ☒ ☐

The County's Transportation Impact Analysis Guidelines includes thresholds for determining CEQA impacts for VMT pursuant to SB 743. The County's Transportation Impact Analysis Guidelines for Vehicle Miles Traveled identify that projects that generate fewer than 110 daily vehicle trips are presumed to have a less than significant impact absent substantial evidence to the contrary. As stated in Checklist Question 17.a, the Project would generate approximately 20 one-way trips per year. Therefore, as the Project would meet the screening criteria, it is presumed that the Project would have a less than significant VMT impact, and no further VMT analysis is required. Impacts would be less than significant.

The small project screening threshold addresses VMT from long-term operations; Project construction activities would be temporary and would not result in long-term or permanent change in VMT. Further, VMT primarily is a metric for assessing project-related GHG emissions impacts. The analysis related to GHG emissions associated with Project-related construction traffic is analyzed elsewhere in this IS/MND; see Greenhouse Gas Emissions, above. Overall, as the Project would provide a source of clean renewable energy to the grid and would reduce new GHG emissions that would have otherwise resulted from producing energy from a non-renewable source, the Project will have a beneficial impact on GHG emissions. Therefore, because the increase in VMT related to construction is temporary and localized, Project construction is not anticipated to result in long-term, permanent changes to the surrounding vehicle transportation system. Impacts from construction would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
c) Substantially increase hazards due to a road design feature (e.g., sharp curves) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

The Project would not substantially increase driving hazards, as the on-site access road would be used only by operations and maintenance staff and emergency responders in the event of an emergency. Alterations to the immediate access roads are not proposed such that a geometric design feature or incompatible use would increase hazards. Project Site access would be provided via a new driveway constructed at 230th Street W at the western portion of the Project Site and new on-site roads. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The proposed perimeter road would encircle the whole solar field and bisect the Project Site in a west-east orientation from 230th Street W to 227th Street W. The road would be wide enough to accommodate emergency vehicles and designed in compliance with County building and fire department standards. A minimum of 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS. Thus, the on-site access road would accommodate large trucks and vehicles, including fire trucks, per County regulations and would provide a clear line of sight for merging into the adjacent roads. Therefore, the Project would not significantly increase hazards due to design features or incompatible uses, and impacts would be less than significant.

D) Result in inadequate emergency access?	☐	☐	☒	☐

As mentioned in Checklist Question 9.f, regional access to the Project Site would be provided via SR 138, which is identified as a Primary Disaster Route (Freeway) in the County of Los Angeles. The proposed construction would be staged on-site and would have a temporary impact on circulation. At times, the Project may require the closure of one lane on 230th Street W closest to the Project Site for the construction of the proposed access road. However, the Project would not result in the complete closure of existing roadways that might have an effect on emergency response or evacuation plans in the vicinity of the Project Site. Accordingly, construction of the Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

The Project would not generate traffic volumes that would impede emergency access to the Project Site and would not result in a significant and permanent delay for emergency vehicles accessing 230th Street W. The Project would comply with emergency access requirements, per the California Fire Code, including turning radius and maneuverability of large emergency vehicles such as fire trucks and ambulances, provision of water tanks, and construction of internal access roads. Therefore, the Project would not result in inadequate emergency access, and impacts would be less than significant.

18. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or	☐	☐	☐	☒

As concluded in response to Checklist Question 5.a, the Project Site contains fallow land with no historical resources. There are no national, State, or locally-designated historic resources on the Project Site or in the immediate vicinity of the neighborhood setting. The examination of numerous historic maps was also negative for older historic cultural resources. Therefore, the Project would have no significant impact on causing a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Code 5020.1(k).

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Chapter 532 Statutes of 2014 (AB 52) requires that lead agencies evaluate a project's potential impact on "tribal cultural resources," which include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the CRHR or included in a local register of historical resources." AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a "tribal cultural resource." In compliance with PRC Section 21080.3.1(b), the City provided formal notification to California Native American tribal representatives identified by the California NAHC. Native American groups may have knowledge about the area's cultural resources and may have concerns about a development's adverse effects on tribal cultural resources, as defined in PRC Section 21074. The County has contacted the tribal representatives of the Tribes noted below. Correspondence to and from tribal representatives is included as **Appendix K**.

AB 52 Native American Groups Contacted:

- Fernañdeno Tataviam Band of Mission Indians (FTBMI), Sarah Brunzell
- The Gabrieleno Tongva Indians of California, Christina Conley
- Yuhaaviatam of San Manuel Nation (YSMN, also known as the San Manuel Band of Mission Indians), Lee Clauss

According to the CRIR, the NAHC response to the SLF search request stated that the results of the SLF search were negative. A list was provided by NAHC of Native American Tribes who may have knowledge of cultural resources in the area. Pursuant to AB 52, the County contacted the Tribes listed above on January 22, 2024. The County received a response from the FTBMI and the YSMN; both Tribes indicated that they had an interest in the Project at the time. To date, no other responses from the Native American community have been received as part of the AB 52 tribal consultation effort. The FTBMI and YSMN both requested preferred tribal mitigation measures be made part of the Project and be implemented during construction of the Project. These mitigation measures are discussed below and in Section 5: Cultural Resources.

Mitigation Measures

MM TCR-1 Tribal Monitor. Prior to the commencement of any ground disturbance activities, the Permittee shall retain a Tribal monitor(s) (Tribal Monitor) who is approved by the Fernandeno Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians) (the "Consulting Tribes") to provide tribal monitoring/consulting services alongside the Project Archaeologist in accordance with MM CUL-3. The Permittee shall submit a letter to the County of Los Angeles (County) to confirm the name and contact information of the Tribal Monitor(s) who is retained for the Project.

MM TCR-2 Tribal Cultural Resources Monitoring Plan. Prior to the commencement of any ground disturbance activities, the Project Archaeologist, in consultation with the Consulting Tribes shall prepare and submit a Tribal Cultural Resources Monitoring and Treatment Plan (Monitoring and Treatment Plan) to the County for review. The Monitoring and Treatment Plan shall be approved by the Consulting Tribes before those activities commence and the approved plan shall be submitted to the County. The Monitoring and Treatment Plan shall include methods for monitoring ground disturbance activities; procedures to follow when resources are discovered; protocol for identifying and evaluating tribal cultural resources; and shall incorporate measures to mitigate potential impacts to tribal cultural resources as provided in MM TCR-5, below.

MM TCR-3 Worker Environmental Awareness Program (WEAP) Training. Prior to the commencement of any ground disturbance activities, all project construction managers and workers shall attend a tribal cultural resources awareness training. The Project Archaeologist and the Tribal Monitor shall administer the training to inform construction managers and workers about the types of resources that could be encountered; the procedures to follow if tribal cultural resources are discovered; and the potential penalties for failing to adhere to applicable laws and regulations. The

procedures include work curtailment or redirection and immediate contact of the on-call archaeologist and, if appropriate, the FTBMI and SMBMI representative. Construction managers shall maintain a log to document all construction personnel who have completed the training. The log shall be provided to the County upon request within five business days. The training requirement should be stated on all construction plans. The Tribal representatives from the Consulting Tribes shall be allowed to attend and participate in the training. The WEAP required under this measure may be combined with the WEAP described in MM CUL-1.

MM TCR-4 Tribal Monitoring. Tribal monitor(s) shall be present onsite to monitor ground disturbing activities based on a schedule coordinated and agreed by the Consulting Tribes or established by the County. Tribal monitor(s) shall monitor ground disturbing activities when the Project Archaeologist is onsite in accordance with MM CUL-3.

If the Project's scheduled activities require the Tribal Monitor to leave the Project Site for a period of time and return, confirmation shall be submitted to the Tribes by the Permittee, in writing, upon completion of each set of scheduled activities and five (5) days' notice (if possible) shall be submitted to the Tribes by the Permittee, in writing, prior to the start of each set of scheduled activities. The Project Archaeologist and Tribal Monitor shall complete a log documenting all ground disturbance activities monitored, the locations where those activities occurred, the types of soils involved, and any tribal cultural resources encountered. Monitoring shall end when ground disturbance activities are completed, or earlier if a Tribal Monitor has determined that the site has a low potential for impacting tribal cultural resources. Within 30 days after monitoring has ended, the Project Archaeologist and Tribal Monitor shall submit the logs to the County and the Permittee shall submit in writing to the Consulting Tribes that all scheduled activities are complete

MM TCR-5 Discovery of Tribal Cultural Resources. If tribal cultural resources are encountered during construction, all ground disturbance activities within 100 feet of the find shall stop until the Tribal Monitor and the Project Archaeologist can evaluate the significance of the find and an area barrier shall be constructed. Construction activities may continue in other areas of the project site. The Project Archaeologist shall develop a research design including a plan to evaluate the resource for significance under CEQA criteria pursuant to Public Resources Code Section 21074. The archaeologist and the Consulting Tribes shall confer regarding the research design, evaluation efforts, and the resource's archaeological significance. If the discovery proves significant as determined by the Project Archaeologist and Consulting Tribes shall recommend appropriate measures subject to County's approval, to mitigate potential impacts to tribal cultural resources. Such measures may include but are not limited to resource avoidance, reburial, and preservation for educational purposes.

Should it occur that avoidance, preservation in place, or on-site reburial are not an option for treatment, the Consulting Tribes and Project Archaeologist shall develop a curation agreement to be approved by the County and agreed between landowner and

museum. The agreement may include legal and physical transfer of the collections and associated recordation, fees, and maintenance of the collection.

The Consulting Tribes shall coordinate with the Permittee to ensure that all measures approved by the County are implemented. Within 90 days after monitoring has ended, the Project Archaeologist shall prepare and submit a final monitoring report documenting all encountered tribal cultural resources, the significance of the resources, and the treatment of the resources to the tribes for review and comment. An approved final report shall be submitted to the California Native American Heritage Commission, local CHRIS Information Center, the County, and Consulting Tribes.

19. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Regarding stormwater, see Checklist Question 10.c.iii. Regarding electric power and natural gas, see Checklist Questions 6.a and 6.b.

Water

Water services on the Project Site are currently provided by one irrigation well and an irrigation pipeline system on the southeastern portion of the subject property. Water services to the Project Site are provided by the AVEKWA. According to the 2020 AVEKWA Urban Water Management Plan (UWMP), the region's water is provided from groundwater and imported water.[43] The Project would utilize water during construction for dust suppression and during operation for routine panel washing. Water would be trucked to the Project Site from an off-site source. Project construction and operation would not utilize new or expanded water facilities, and no construction or relocation of water facilities would cause a significant environmental effect. Impacts would be less than significant.

Wastewater

Temporary sanitary facilities would be placed on-site during construction. As the Project would be unmanned during operation, no wastewater facilities would be required. Therefore, the Project is not anticipated to generate additional wastewater. Project construction and operation would not utilize wastewater facilities, and no construction or relocation of wastewater facilities would cause a significant environmental effect. Impacts would be less than significant.

Telecommunications

Telecommunication equipment, including fiber optics, microwave, and meteorological data collection systems or supervisory control and data acquisition would be installed on the Project Site to connect the Project to remote monitoring locations and ultimately to the SCE substation. Project construction would be coordinated with any telecommunications service providers prior to installation. Therefore, installation of telecommunications infrastructure would not cause significant environmental effects. Impacts would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

As described in Checklist Question 10.b, the Project would obtain construction and operational water by purchasing it from a local purveyor. The Project Site is located within the Antelope Valley Groundwater Basin,

[43] Antelope Valley-East Kern Water Agency, 2020 Urban Water Management Plan.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

which is managed by the Antelope Valley Regional Water Management Group. The total storage capacity is estimated at 68 million to 70 million AF. Natural recharge is estimated at approximately 29,000 to 58,000 AF per year with an annual extraction of approximately 130,000 AF. The primary source of recharge to the groundwater basin is runoff from surrounding mountain ranges. Water demand during construction would be trucked in and is estimated at 13 AF. Water consumption for washing solar panels during Project operations and maintenance is anticipated to be approximately 0.2 AF of water per year. The water to be utilized during Project construction and O&M is minor compared to the water currently used on the Project Site for agricultural uses and would be sourced from the existing supplies of a local purveyor. Therefore, the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development, and impacts would be less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

As described in Checklist Question 19.a, the Project would not require wastewater facilities and would not generate additional wastewater. As such, the Project would not interfere with any wastewater treatment provider's service capacity. Impacts would be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

Project construction would result in the generation of various waste materials including soil, vegetation, and sanitation waste from portable toilets. Soil excavated for the Project Site would be balanced on-site. Sanitation waste (i.e., human-generated waste) would be disposed of according to sanitation waste management practices. The Project would be unmanned during Project operations, and minimal solid waste would be generated and sent to a publicly owned permitted landfill/disposal site. As the Project would generate minimal construction and operational waste, the Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

As previously mentioned in Checklist Question 19.d, Project construction would result in the generation of waste materials such as soil, vegetation, and sanitation waste. The Project would also be required to comply with AB 341 which requires a 75 percent diversion of construction materials. During operations, the Project would be unmanned and would generate minimal solid waste. Therefore, the Project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Impacts would be less than significant.

20. WILDFIRE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐
e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

As described in Checklist Question 9.g, the Project Site is located in an LRA and is not within a Very High FHSZ. Therefore, the Project Site is not located within an area prone to wildfire. Nevertheless, as described in Checklist Question 9.h, Project construction activities would be consistent with other such activities in the region and would not represent an increased fire risk. All construction vehicles and equipment would comply with applicable regulations to limit the potential for malfunction. Additionally, the proposed BESS would include redundant fire safety measures and would be designed and constructed according to applicable international, federal, State, and local standards. Furthermore, as described in Checklist Question 9.f, the Project would provide adequate emergency access during construction and operational activities and would not impede the use of the streets for emergencies or access for emergency response vehicles. Moreover, the Project Site is relatively flat with ruderal vegetation; therefore, the Project is not expected to expose people or structures to significant risks. As such, for the reasons substantiated above, impacts related to wildfires would be less than significant.

21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

As discussed throughout this Initial Study, the Project does not have the potential to degrade the environment's quality or result in significant environmental impacts that cannot be reduced to less than significant following compliance with the established regulatory framework (i.e., local, State, and federal regulations) and the recommended mitigation measures.

As concluded in Section 2: Air Quality, following compliance with **MM AQ-1**, which addresses a Valley Fever Management Plan, the Project would not expose sensitive receptors to substantial pollutant concentrations.

As concluded in Section 4: Biological Resources, following compliance with **MM BIO-1**, which addresses potential impacts to nesting birds; **MM BIO-2**, which addresses potential impacts to Swainson's Hawk; **MM BIO-3**, which addresses implementation of a WEAT; **MM BIO-4**, which requires proper containment of trash and waste items; **MM BIO-5**, which requires common and special-status wildlife awareness through visual checking and inspection; **MM BIO-6,** which addresses potential impacts to burrowing owls; **MM BIO-7**, which addresses potential impacts to desert kit fox; **MM BIO-8**, which addresses potential impacts to American badger; **MM BIO-9**, which addresses potential impacts to Crotch's bumble bee; **MM BIO-10**, which requires vegetation and revegetation measures; and **MM BIO-10**, which requires panel positioning to a close to vertical position, the Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

As concluded in Section 5: Cultural Resources, following compliance with **MM CUL-1, MM CUL-2** and **MM CUL-3**, which address potential impacts to archaeological resources, the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. Following compliance with **MM CUL-4**, which addresses potential impacts to paleontological resources, the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Following compliance with **MM CUL-5,** which addresses the inadvertent discovery of human remains, the Project would not directly or indirectly disturb any human remains.

As concluded in Section 18: Tribal Cultural Resources, following compliance with **MM TCR-1** through **MM TCR-5**, which address potential impacts to tribal cultural resources, the Project could not cause an adverse change in the significance of a tribal cultural resource.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)?	☐	☐	☒	☐

CEQA Guidelines Section 15065(a)(3) defines "cumulatively considerable as times when "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." The proposed Project would result in less than significant impacts with mitigation incorporated for the following environmental issues: air quality (Valley Fever only), biological resources, cultural resources, and tribal cultural resources. The impacts associated with these resource areas are localized and, as explained in detail above, project level impacts would be less than significant with mitigation incorporated. The Project site primarily is surrounded by fallow agricultural land, vacant land, and open space. Given the limited development in the area, there is no evidence of any cumulative impacts to these resource areas. Thus, cumulative impacts would be less than significant, and the Project's incremental contribution would not be cumulatively considerable.

All other Project impacts were determined either to have no impact or to be less than significant following compliance with the established regulatory framework, without the need for mitigation. Cumulatively, the proposed Project would not result in any significant impacts that would substantially combine with impacts of other current or probable future impacts. Therefore, the proposed Project would not result in any cumulatively considerable significant impacts.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

A significant impact may occur if the Project has the potential to result in significant environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly. All potential impacts of the Project have been identified in the respective sections of this Initial Study, and mitigation measures have been prescribed, where applicable, to reduce all potential impacts to less than significant levels. As such, upon implementation of mitigation measures identified and compliance with existing regulations, the Project would not have significant environmental effects, and the Project would not have substantial adverse effects on human beings, directly or indirectly. Therefore, impacts would be less than significant.

Initial Study – Mitigated Negative Declaration

230th Street Solar Project

Appendix A	Solar Glare and Glint Analysis Report
Appendix B	Air Quality Technical Memorandum
Appendix C-1	Biological Resources Assessment
Appendix C-2	Biological Resources Supplemental Memorandum
Appendix D	Cultural Resources Assessment
Appendix E	Energy Documentation
Appendix F	Geotechnical Engineering Investigation
Appendix G	GHG Emissions Tech Memorandum
Appendix H	Phase I Environmental Site Assessment
Appendix I	Drainage Report
Appendix J	Noise Technical Memo
Appendix K	Tribal Cultural Resources Documentation
Appendix L	Responses to Comments

Appendix A

Solar Glare and Glint Analysis Report

Kimley»Horn

Introduction

The RCPA 230th Street Project (Project) consists of approximately 31 acres in Los Angeles County, California. The site is situated between 230th Street West, and West Avenue D. The use of the data is up to the client, including the determination if any glare is allowed for this development and if further steps should mitigation be required for any glare identified. See Figure 1 for vicinity map with receptors and Project location.

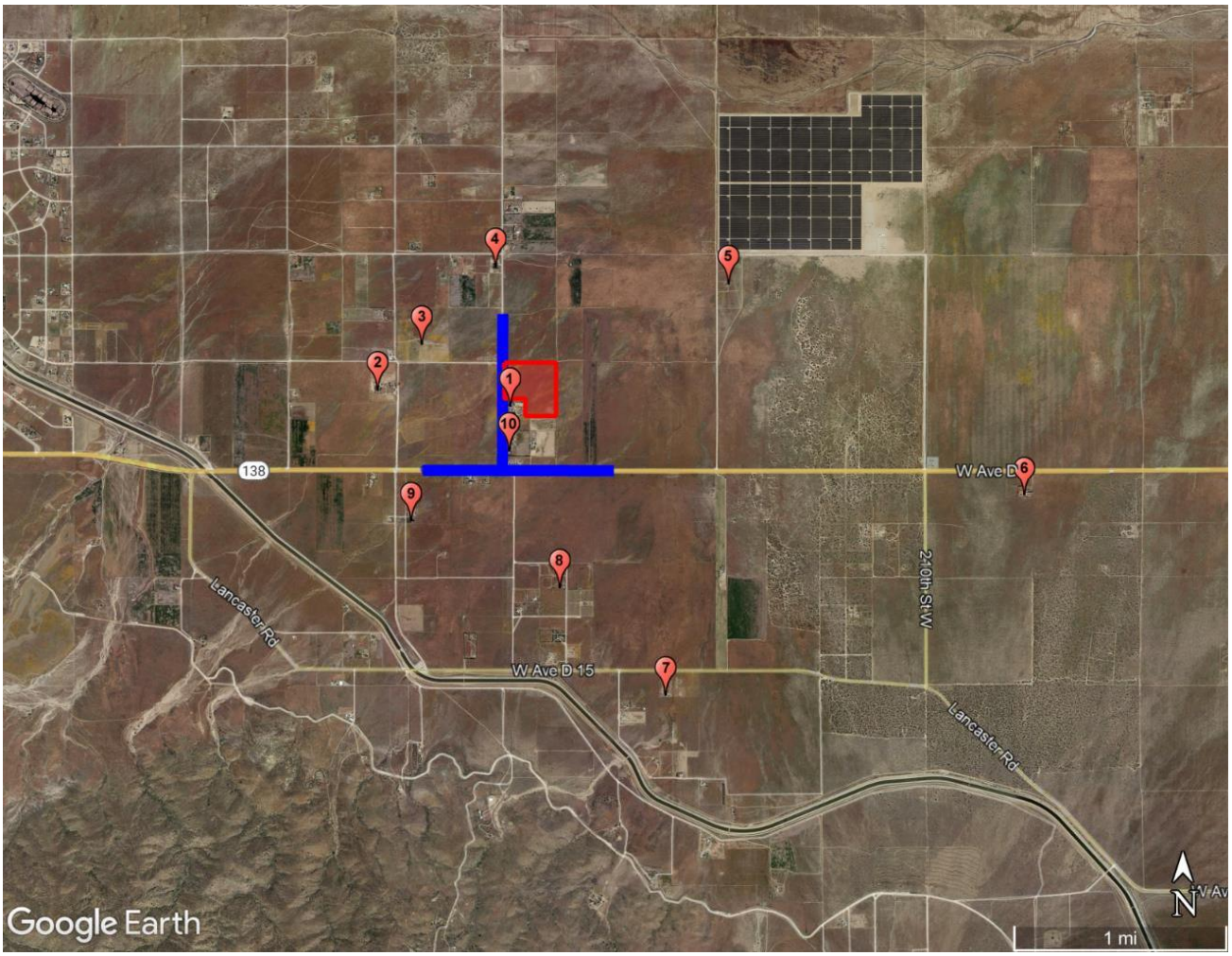


Figure 1: Project Location

Kimley Horn completed a glare analysis using the Solar Glare Hazard Analysis Tool (SGHAT) software, developed by Sandia Laboratories, now hosted by ForgeSolar. The SGHAT software is considered an industry-best practice and conservative model that effectively models the potential for glare at defined receptors from defined solar energy generating facilities.

Receptors & Methodology

Kimley Horn included as part of the analysis the 10 observation points near the Project, and 2 roadways along the project. The analysis is based on preliminary design geographic data from June 2023. The points used for observation points were modeled without restricting the field of view, to

ensure the results were conservative in nature. The receptors for roadways were limited to a 50 degree field of view to the left and right simulating the extent of periferal vision. The PV array was modeled with single axis tracking, anti reflective coating, and backtracking. The panel specifications, observation points, and roadway parameters can be found in Appendix A. All receptors analyzed are listed below including route receptors, and observation points, shown in Table 1.

Receptors	Location	Description
230th Street West	Roadway west of Project	Analyzed north to south along the Project
West Avenue D	Roadway south of Project	Analyzed west to east along the Project
10 Observation Points	Single family homes identified all around site	Analyzed near the Project

Table 1: Receptor Descriptions

Kimley Horn utilized the ForgeSolar Glare Gauge software tool to perform the glare analysis. If any receptor showed signs of glare, the tool calculated the retinal irradiance (brightness) and subtended angle (size divided by distance) of the glare source. By considering retinal irradiance and subtended angle, the analysis could predict ocular hazards ranging from low potential for temporary after-image to retinal burn. Based on the predicted retinal irradiance (intensity) and the subtended angle (size/distance) of the glare source to the receptor, the software categories glare into three levels shown by colors. The three glare levels are: "green" grade indicating a low potential for temporary after-image, "yellow" grade indicating the potential for temporary after-image, and "red" grade indicating the potential for retinal damage. For comparison, viewing the unfiltered sun is in the upper region of yellow glare near the red border, while solar panel glare tends to be on the border of green and yellow, approximately three orders of magnitude less than direct viewing of the sun. The three levels of glare were determined in (Ho, 2010). The different levels are displayed in Figure 2, with viewing unfiltered sun shown as a reference point.

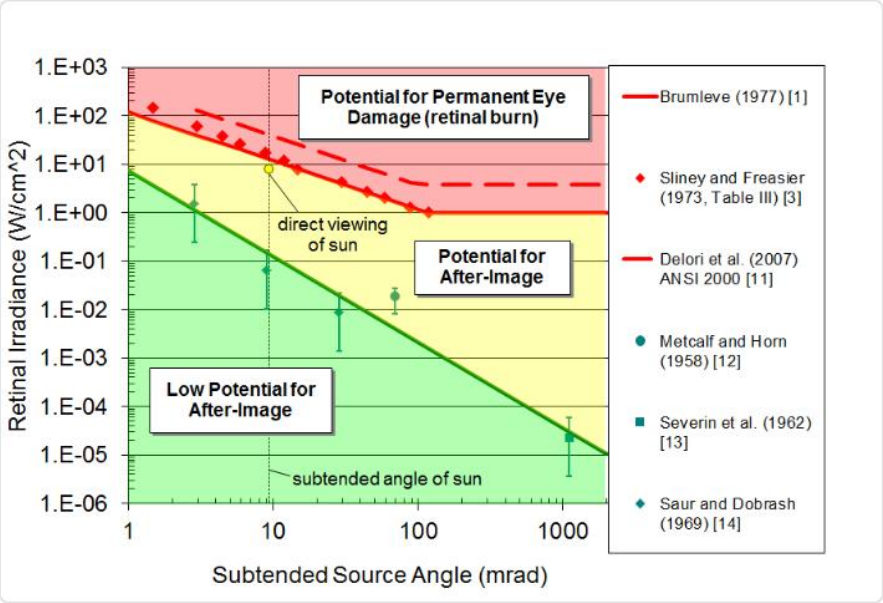


Figure 2: Glare Level Determined from "Ho, 2010"

Green and yellow glare is common from bodies of water, glass facades, and solar panel arrays. Red glare is extremely rare for PV arrays because solar panels do not concentrate glare. For scenarios involving mirrored collector systems which are common sources for red glare, different modeling and software is required. The difference between a curved surface that concentrates glare into a single point versus a flat collector (solar panel) is shown in Figure 3. The left image simulates light reflecting off a flat solar panel with no concentrating glare and the image on the right is of a curved mirrored panel reflecting towards a collector tower with all light concentrating together.

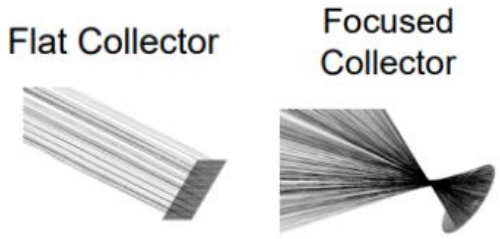


Figure 3: Flat Solar Panel and Curved Solar Panel reflection from "Ho, 2010"

It is worth noting that according to the Federal Aviation Administration's (FAA) 2021 Final Policy, in previous years, pilots have reported glare from bodies of water and glass façades, resembling the glare produced by solar panels. The software analyzes pilot's similarly to motorists; therefore, results are similar to those found when analyzing pilots near bodies of water or existing building facades. Mitigating glare remains the focus, but it is not as significant an issue as initially thought in 2013 when the initial policy was formulated (Federal Aviation Administration, 2021). The amount of light reflected by a surface or solar panel, increases as the sunlight's angle of incidence from the surface increases as illustrated in Figure 4. The red angle of incidence yields 50% light reflected while the blue angle of incidence yields only 2% of light reflected. Yellow glare is typically found shown by the red arrow with more reflection than the blue arrow, respresenting typical green glare.

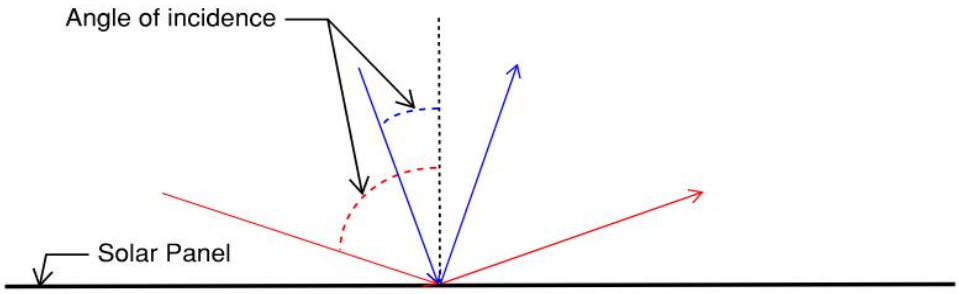


Figure 4: Reflected Light and Angle of Incidence (illustration only) on a panel

Modern solar PV modules reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles (Day & Mow, 2018). Additionally, glare from flat plate PV systems is comparable to that of smooth water and not expected to be hazardous (Riley & Olson, 2011).

Analysis Results

The model included the listed receptors in Table 1, and four existing tree lines identified near observation points around the site. The Project is anticipated to produce green glare for only four observation points (1, 2, 3, and 5). The tables below summarize the results for the observation points and roadways. Glare is reflected in hours per year with time of day in standard time assuming clear skies, no existing topography, or manmade objects to block line of sight. No proposed tree lines or manmade objects were modeled in to maintain a conservative model.

Observation Points

The observation points were modeled at a height of 6' to simulate an individual in a single-story building near the Project. The analysis looked at the glare impacts from the entire Project modeled as one array. The site has no proposed obstructions modeled adjacent to the Project. Four observation points identified any glare from the Project, see Table 2.

Observation Point 1 observed 2.5 hours of green glare from January to February and May to July and November to December for up to 3 minutes per day between 5-7:30AM from PV array 1.

Observation Point 2 observed 1.1 hours of green glare from March to April for up to 4 minutes per day between 5:15-6:15AM from PV array 1.

Observation Point 3 observed 2.7 hours of green glare from November to Janaury for up to 5 minutes per day between 6:30-7:30AM from PV array 1.

Observation Point 5 observed 0.5 hours of green glare from October to November for up to 4 minutes per day between 5-7:30AM from PV array 1.

Receptor	Hazard Level	Hours (per year)
OP 1	Green	2.5
	Yellow	0
	Red	0
OP 2	Green	2.2
	Yellow	0
	Red	0
OP 3	Green	2.7
	Yellow	0
	Red	0
OP 5	Green	0.5
	Yellow	0
	Red	0
OP 4, 6-10	Green	0
	Yellow	0
	Red	0

Table 2: Total Yearly Glare Hazard per Observation Point Receptors

Roadways

The roadways modeled had a driver height of 4', and a field of view of 50 degrees to the left and right. The analysis looked at the glare impacts from the entire Project which was modeled as one PV array. The results showed that no glare is expected to impact motorists throughout the entire year. No roadways identified any glare from the Project, see Table 3.

Receptor	Hazard Level	Hours (per year)
Roadway Receptors	Green	0
	Yellow	0
	Red	0

Table 3: Total Yearly Glare Hazard for Roadways

Conclusion

In Summary, there was green glare identified for four observation points the entire project site. The highest amount of glare during any singular occurrence is five minutes for observation point 3. This analysis does not consider buildings, or terrain between the observation points, roads, or the PV array. If there is not a direct line of site from the Project to the locations identified due to terrain or man-made objects, the glare might not actually impact motorists, or residences. The panel specifications should resemble those shown in Appendix A to aim for the same results shown in this report.

References

Day, M., & Mow, B. (2018). *Research and Analysis Demonstrate the Lack of Impacts of Glare from Photovoltaic Modules*. Nrel.gov. https://www.nrel.gov/state-local-tribal/blog/posts/research-and-analysis-demonstrate-the-lack-of-impacts-of-glare-from-photovoltaic-modules.html

Federal Aviation Administration. (2021, May 11). *Federal Register: Request Access*. Unblock.federalregister.gov. https://www.federalregister.gov/documents/2021/05/11/2021-09862/federal-aviation-administration-policy-review-of-solar-energy-system-projects-on-federally-obligated

Ho, C. K., Ghanbari, C. M., & Diver, R. B. (2010). Methodology to Assess Potential Glint and Glare Hazards From Concentrating Solar Power Plants: Analytical Models and Experimental Validation. *Journal of Solar Energy Engineering*. https://www.forgesolar.com/static/docs/ES2010-90053_glare_v2.pdf

Riley, E., & Olson, S. (2011). A Study of the Hazardous Glare Potential to Aviators from Utility-Scale Flat-Plate Photovoltaic Systems. *ISRN Renewable Energy*, *2011*, 1–6. https://www.hindawi.com/journals/isrn/2011/651857/

APPENDIX A

ForgeSolar Glare Analysis Report

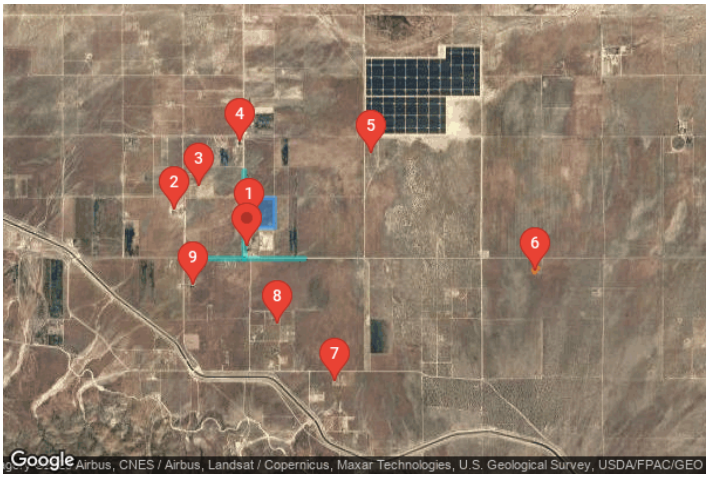
FORGESOLAR GLARE ANALYSIS

Project: **230th Street**
Proposed solar site located in rural Lancaster, California

Site configuration: **Existing Conditions**

Created 17 Oct, 2023
Updated 17 Oct, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 1 MW to 5 MW
Site ID 103250.17980

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2



Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	415	6.9	0	0.0	-

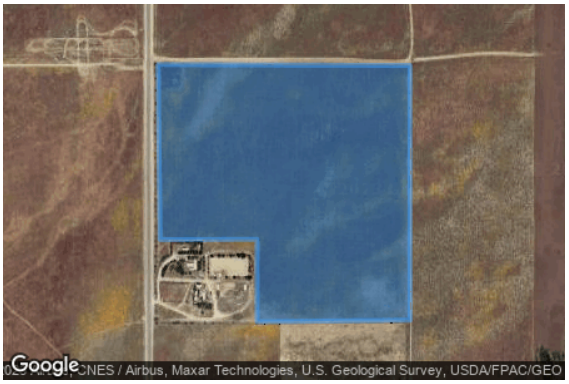
Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
230th St West	0	0.0	0	0.0
W Avenue D	0	0.0	0	0.0
OP 1	152	2.5	0	0.0
OP 2	67	1.1	0	0.0
OP 3	164	2.7	0	0.0
OP 4	0	0.0	0	0.0
OP 5	32	0.5	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.35
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.779418	-118.536723	2827.26	8.00	2835.26
2	34.781878	-118.536759	2820.66	8.00	2828.66
3	34.781865	-118.532430	2809.55	8.00	2817.55
4	34.778283	-118.532429	2820.89	8.00	2828.89
5	34.778261	-118.535057	2828.73	8.00	2836.73
6	34.779420	-118.535057	2822.46	8.00	2830.46

Route Receptors

Name: 230th St West
Path type: Two-way
Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.785093	-118.536897	2811.63	4.00	2815.63
2	34.774574	-118.536906	2848.13	4.00	2852.13

Name: W Avenue D
Path type: Two-way
Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.774599	-118.543241	2866.23	4.00	2870.23
2	34.774564	-118.534604	2841.56	4.00	2845.56
3	34.774577	-118.528108	2823.56	4.00	2827.56

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	34.779051	-118.536208	2829.69	6.00
OP 2	2	34.780442	-118.547050	2866.20	6.00
OP 3	3	34.783203	-118.543568	2839.30	6.00
OP 4	4	34.788586	-118.537477	2808.65	6.00
OP 5	5	34.787201	-118.518359	2770.29	6.00
OP 6	6	34.773066	-118.494190	2819.08	6.00
OP 7	7	34.759806	-118.523561	2895.23	6.00
OP 8	8	34.766711	-118.531927	2890.21	6.00
OP 9	9	34.771336	-118.544341	2896.08	6.00
OP 10	10	34.776060	-118.536404	2845.86	6.00

Obstruction Components

Name: OP 1 East Trees
Top height: 10.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.779108	-118.536038	2828.23
2	34.778998	-118.536036	2828.90

Name: OP 1 North Trees
Top height: 10.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.779220	-118.536379	2827.55
2	34.779216	-118.536007	2828.74

Name: OP 1 North Trees Closer
Top height: 10.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.779354	-118.536510	2827.92
2	34.779358	-118.535995	2828.38
3	34.779264	-118.535995	2828.92

Name: OP 6 Trees
Top height: 6.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.773005	-118.494366	2819.62
2	34.773133	-118.494371	2820.19
3	34.773201	-118.494457	2820.62
4	34.773276	-118.494457	2820.71
5	34.773437	-118.494331	2820.07
6	34.773426	-118.493985	2819.20

Glare Analysis Results

Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	415	6.9	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
230th St West	0	0.0	0	0.0
W Avenue D	0	0.0	0	0.0
OP 1	152	2.5	0	0.0
OP 2	67	1.1	0	0.0
OP 3	164	2.7	0	0.0
OP 4	0	0.0	0	0.0
OP 5	32	0.5	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0

PV: PV array 1 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
230th St West	0	0.0	0	0.0
W Avenue D	0	0.0	0	0.0
OP 1	152	2.5	0	0.0
OP 2	67	1.1	0	0.0
OP 3	164	2.7	0	0.0
OP 5	32	0.5	0	0.0
OP 4	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0

PV array 1 and Route: 230th St West

No glare found

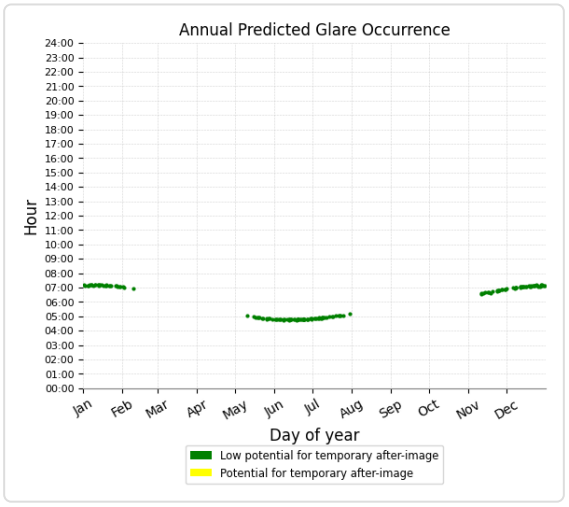
PV array 1 and Route: W Avenue D

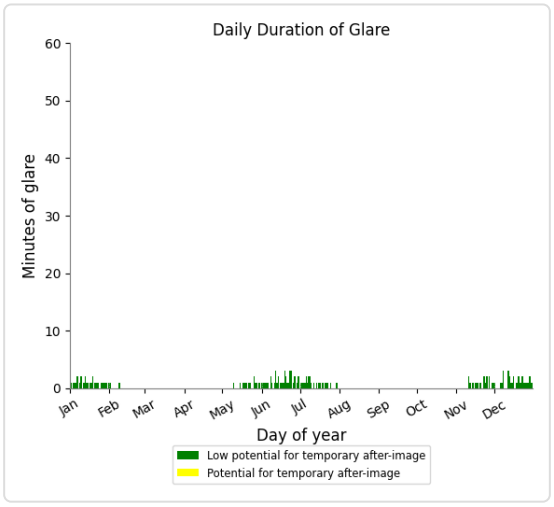
No glare found

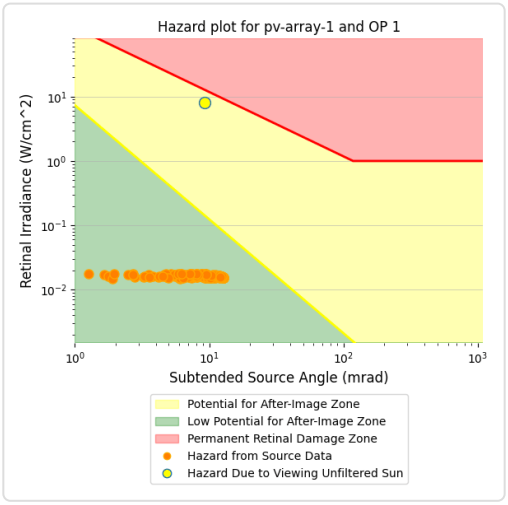
PV array 1 and OP 1

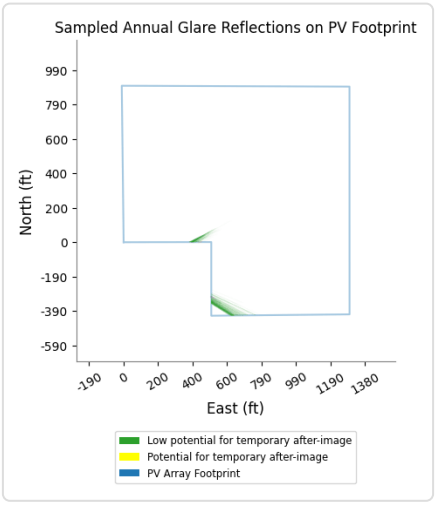
Yellow glare: none

Green glare: 152 min.





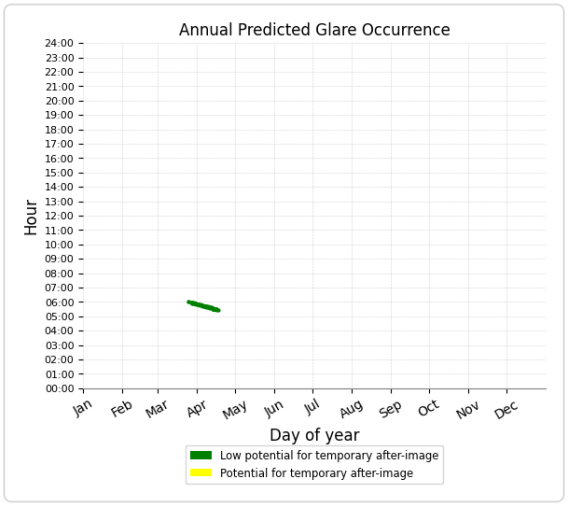


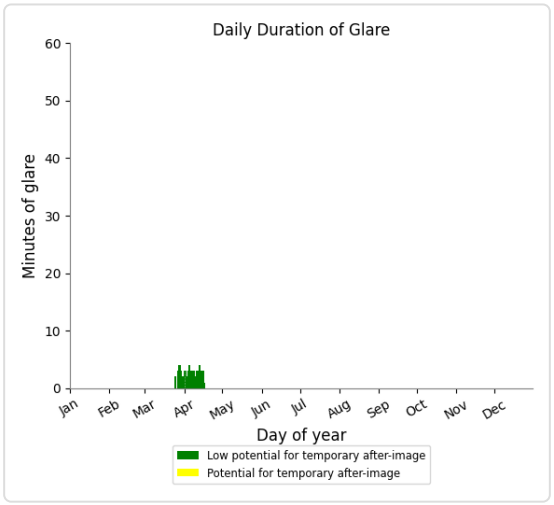


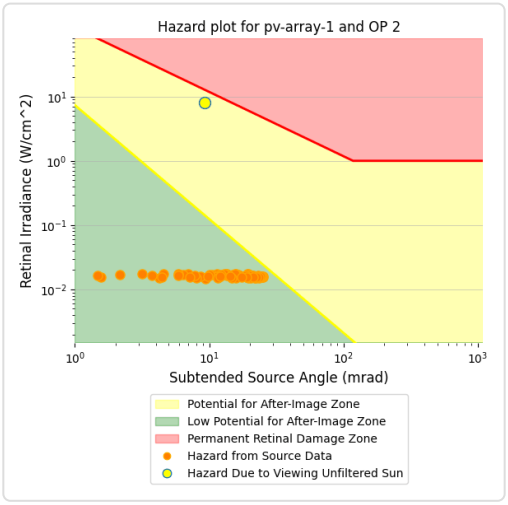
PV array 1 and OP 2

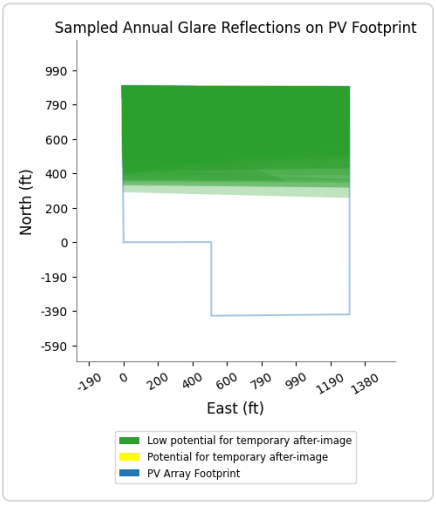
Yellow glare: none

Green glare: 67 min.





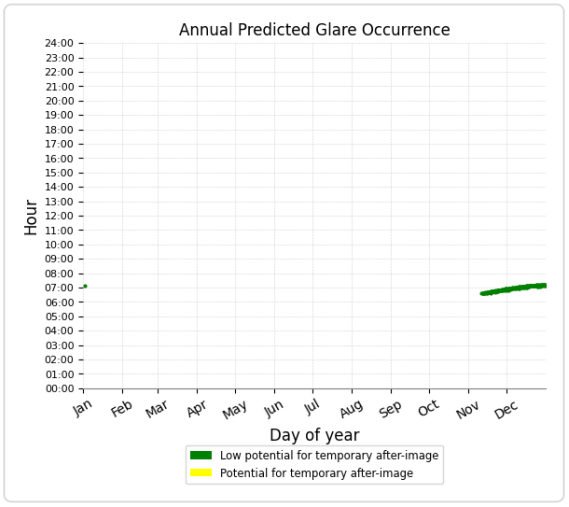


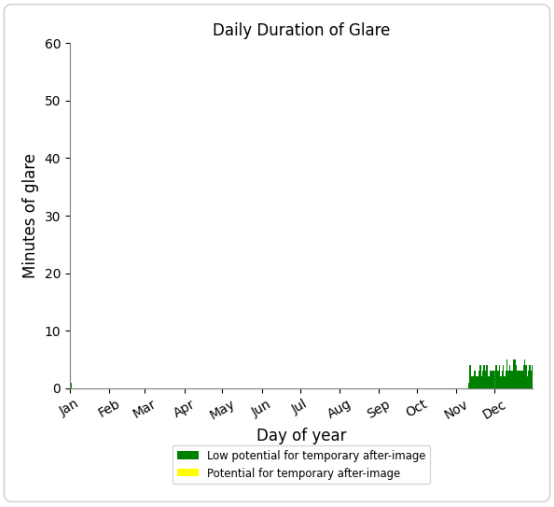


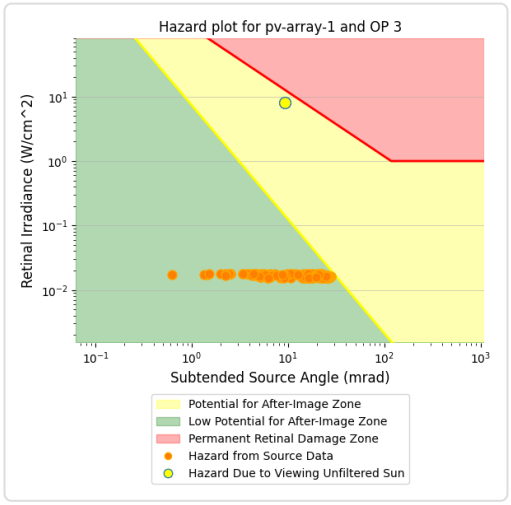
PV array 1 and OP 3

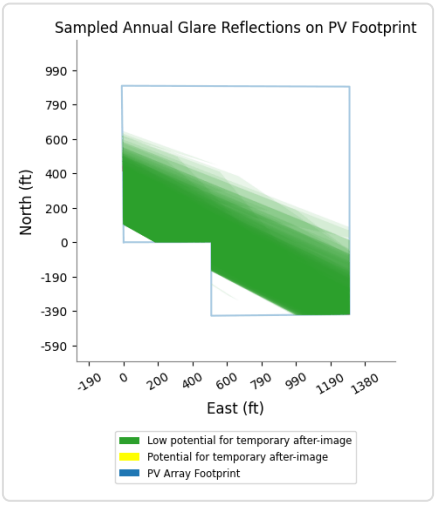
Yellow glare: none

Green glare: 164 min.



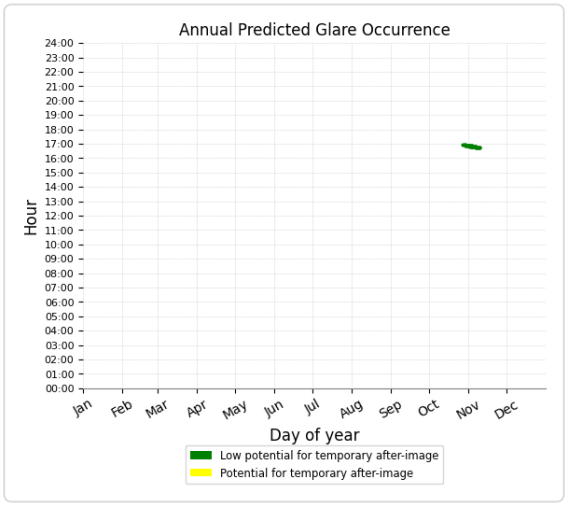


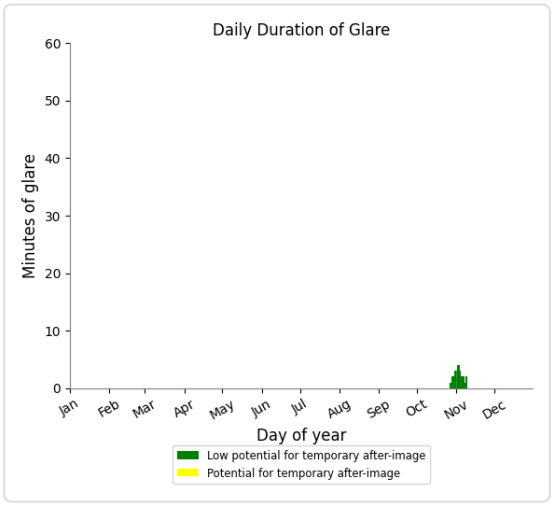


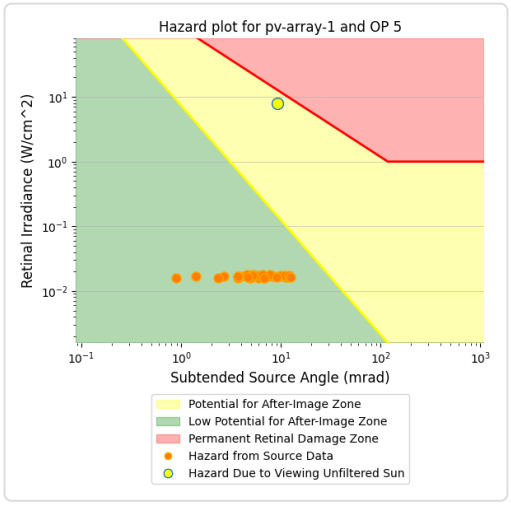


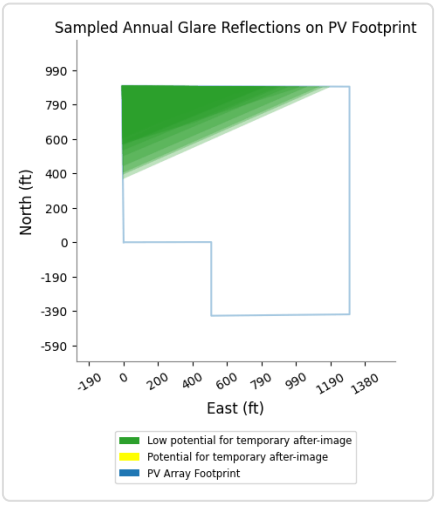
PV array 1 and OP 5

Yellow glare: none
Green glare: 32 min.









PV array 1 and OP 4

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

© Sims Industries d/b/a ForgeSolar, All Rights Reserved.

Appendix B

Air Quality Analysis Technical Memorandum

Kimley»Horn

TECHNICAL MEMORANDUM

To:	RPCA Solar 12, LLC
From:	Olivia Chan and Mayra Garcia, Kimley-Horn and Associates, Inc.
Date:	April 11, 2025
Subject:	230th Street Solar Project – Air Quality Analysis

PURPOSE

The purpose of this memorandum is to assess potential impacts due to air pollutant emissions associated with construction and operation of the 230th Street Solar Project (Project) proposed to be located in unincorporated Los Angeles County, California.

PROJECT LOCATION

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W in Lancaster (see **Figure 1: Regional Vicinity Map**). The Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west (see **Figure 2: Local Vicinity Map**). Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25 miles to the south. Local access to the Project Site would be accessed via West A C 8 and 230th Street W.

PROJECT DESCRIPTION

RPCA Solar 12, LLC (Applicant) proposes to construct and operate a single-axis tracker ground-mounted photovoltaic (PV) community solar and battery energy storage system (BESS) with up to approximately 4.99 megawatts of alternating current (MWac) in capacity. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance.

The BESS would store electrical energy produced by the Project during the day and flexibly dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of four battery banks with energy storage capacity located in the southwest corner of the PV array. Each battery bank would be approximately the size of a typical shipping container. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection, and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

Site access would be provided via a new driveway constructed from 230th Street W. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The access roads would encircle the whole array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site Boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. As little as 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.

The Project proposes a 10-foot landscape buffer between the fence and the access road on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8. The Project would be enclosed in a six foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24-hour access for emergency responders.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as January 2026.[1] Project construction activities generally fall into six main categories: (1) demolition; (2) site preparation (vegetation clearing); (3) grading; (4) paving; (5) system installation; and (6) testing, commissioning, and cleanup.[2] Construction personnel will be divided between civil and electrical services. During Project construction, non-potable water would be required for common construction-related purposes, including but not limited dust

[1] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.

[2] Note that the modeling does not account for testing, commissioning, and cleanup as heavy-duty construction equipment would not be utilized.

suppression, soil compaction, and grading. No new water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction.

Operations

The Project would operate year-round. The Project Site would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

During Project O&M, it is anticipated that minimal water would be required for solar panel washing. Water consumption for washing panels is expected to be approximately 0.2 acre-feet (AF) of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge (inundation of water), and no chemicals or other materials are used. It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department standards. The water tank shall have a Los Angeles County Fire Department supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning complies with all applicable local, State, and federal requirements and best management practices (BMPs). The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

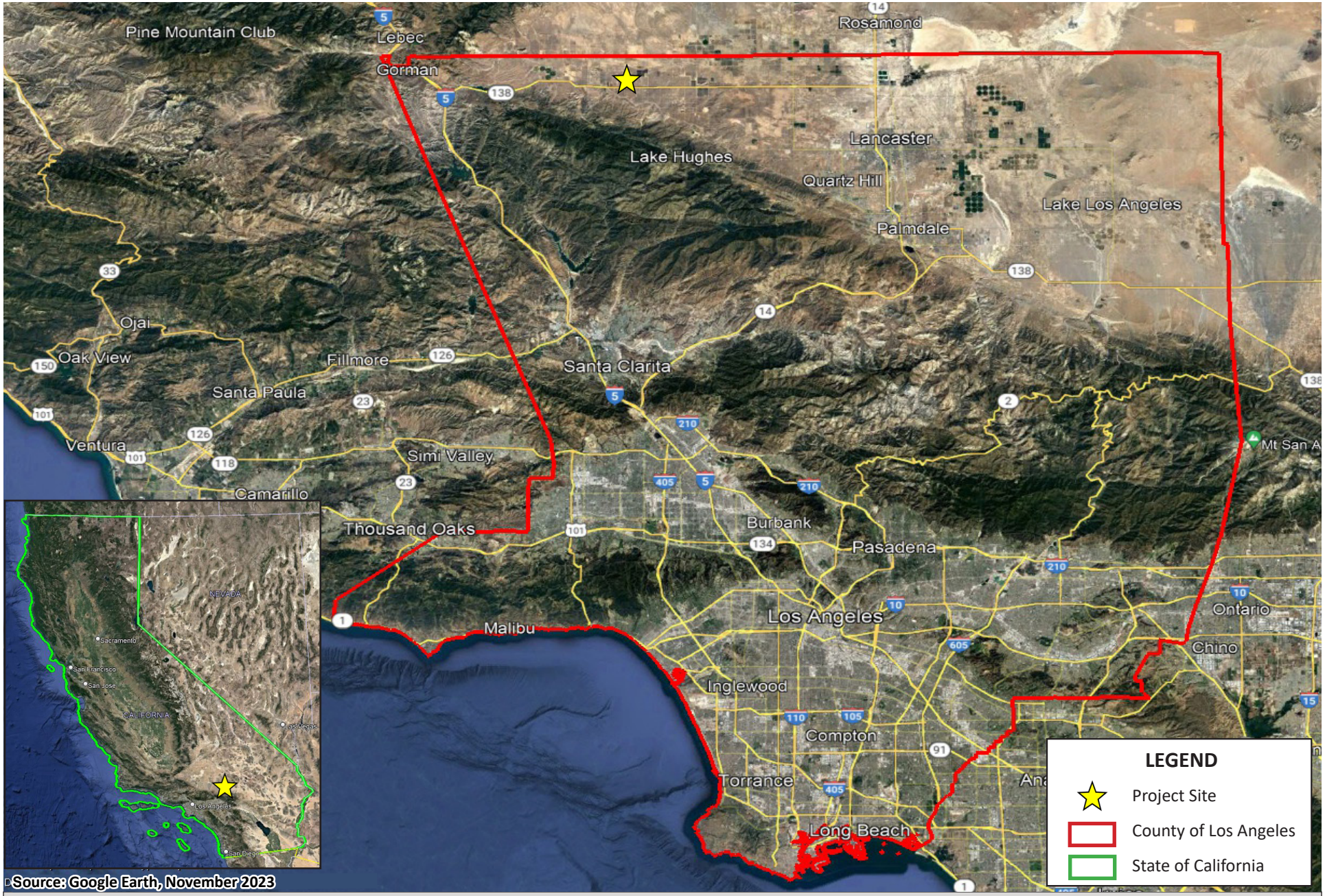


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

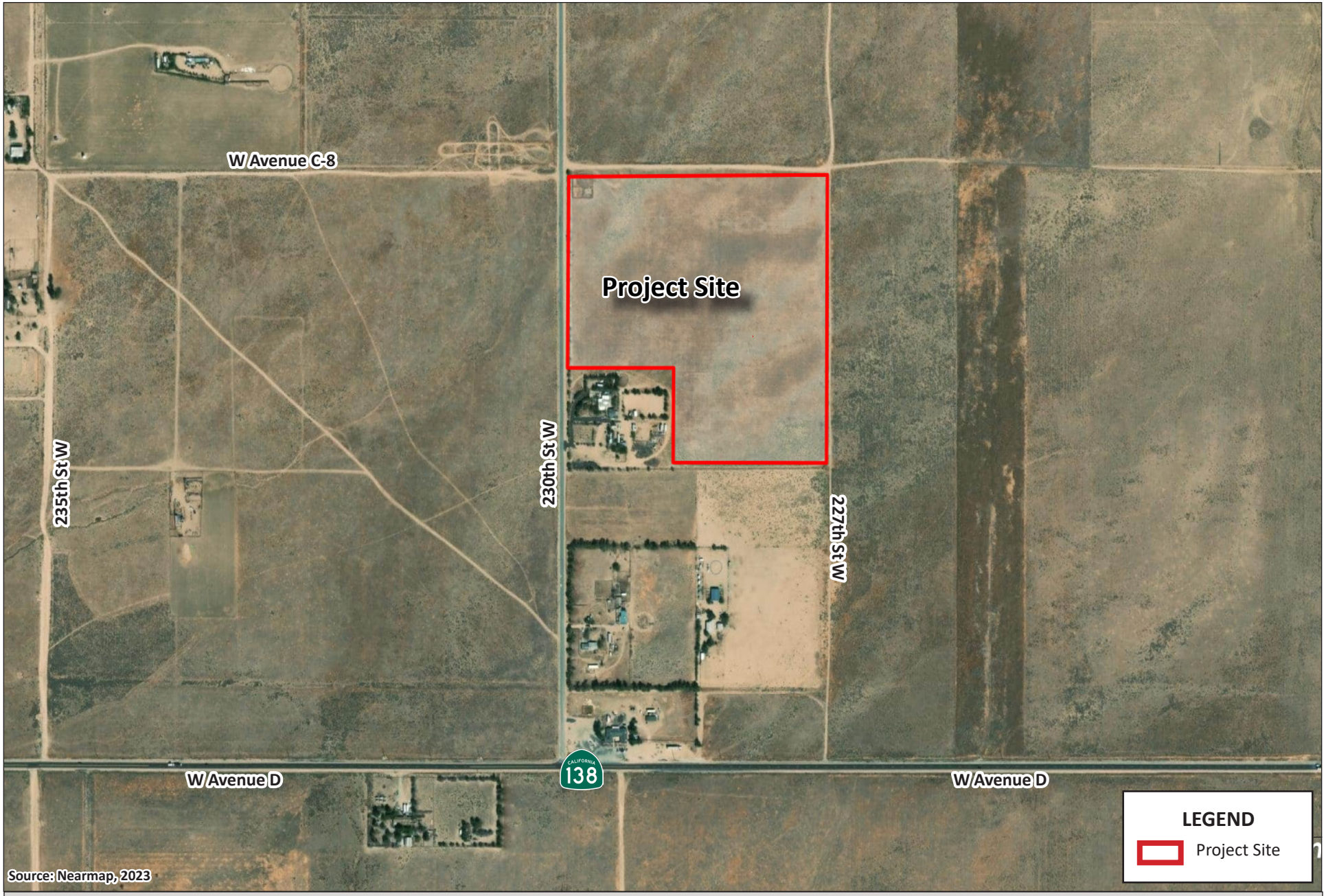


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

ENVIRONMENTAL SETTING

Regional Topography

The State of California is divided geographically into 15 air basins, generally along geographic or topographic boundaries. The Project Site is located in the Mojave Desert Air Basin (Basin). The Basin includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The Antelope Valley AQMD (AVAQMD) has jurisdiction over stationary sources of air pollution located within the northern desert portion of Los Angeles County, which includes the Project Site.

The Basin is bound in the northwest by the Tehachapi Mountains, in the southwest by the San Gabriel Mountains, and in the south by the San Bernardino Mountains. To the north, the Basin is defined by the San Bernardino-Inyo County boundary, to the northeast the California-Nevada state line, and to the east by the Colorado River. The San Gabriel and San Bernardino Mountains are high and rugged, with the highest peaks being 10,066 feet above sea level (Mt. San Antonio) and 11,503 feet (Mt. San Gorgonio), respectively. The Basin generally lies at 3,000 to 6,000 feet elevation.

The Antelope Valley is situated in a transitional zone between the Great Basin Desert to the north and the Sonoran Desert to the south (mainly between 34°N and 38°N latitudes). The area is primarily a rain-shadow desert, meaning it experiences little rainfall because it is sheltered from prevailing rain-bearing winds (i.e., off the Pacific Ocean) by a range of mountains.

Meteorology and Climate

Factors such as wind, sunlight, temperature, humidity, and rainfall, affect the accumulation and/or dispersion of air pollutants throughout the Basin. Local meteorological conditions are greatly affected by the topography of the region.

Prevailing winds in the Basin are out of the west and southwest. These prevailing winds are due to the proximity of the Basin to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north. Air masses pushed onshore in Southern California by differential heating are channeled through the mountain passes. Although a portion of the prevailing winds come from the Los Angeles Basin via the canyons, the vast majority of the winds are a result of the orographic effect and the desert heat low-pressure systems. The “orographic effect” is the phenomenon whereby the air is forced over the mountain range and loses moisture as it rises. When it descends, it also compresses and heats up. The speed of the wind is aided by the “desert heat low”, which routinely form over the eastern Mojave Desert area. During the summer a Pacific Subtropical High Cell, that sits off the coast generally influences the Basin, inhibiting cloud formation and encouraging daytime solar heating. The Basin is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The Basin averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation). The Basin is classified as a dry-hot desert

climate, with portions classified as dry-very hot desert, to indicate at least three months have maximum average temperature over 100.4° F.[3]

Criteria Air Pollutants

Carbon Monoxide (CO). Carbon monoxide is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhaust accounts for most CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. Concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions. The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Ozone (O_3). Ozone is a colorless gas that is formed in the atmosphere when volatile organic compounds (VOCs), sometimes referred to as reactive organic gases (ROGs), and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. Ozone is not a primary pollutant; it is a secondary pollutant formed by complex interactions of the two precursor pollutants directly emitted into the atmosphere. Automobile exhaust and industrial sources are the primary sources of VOCs and NO_X. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. Ozone can damage the tissues of the respiratory tract, causing inflammation and irritation, and result in symptoms such as coughing, chest tightness, and worsening of asthma symptoms.

Nitrogen Dioxide (NO_2). Most NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to ozone formation. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million (ppm) by volume.

Particulate Matter (PM2.5 and PM10). Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM2.5 and PM10 represent fractions of particulate matter. Fine particulate matter, or

[3] Mojave Desert Air Quality Management District, *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, February 2020.

PM2.5, is roughly 1/28 the diameter of a human hair. PM2.5 results from fuel combustion (e.g., motor vehicles, power generation, and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_X), NO_X, and VOC. Inhalable or coarse particulate matter, or PM10, is about 1/7 the thickness of a human hair. Major sources of PM10 include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

PM2.5 and PM10 pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM2.5 and PM10 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates, can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases, such as chlorides or ammonium, into the lungs, also causing injury. Whereas PM10 tends to collect in the upper portion of the respiratory system, PM2.5 is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Sulfur Dioxide (SO_2). Sulfur dioxide is a colorless, pungent gas formed primarily by the combustion of sulfur containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, sulfur dioxide concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and corrode iron and steel.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) are often used interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC are often used interchangeably.

Local Ambient Air Quality

Ambient air quality for the Project Site can be determined from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends in the region are documented by measurements made by the AVAQMD, the air pollution regulatory agency in the Basin that maintains air quality monitoring stations which process ambient air quality measurements. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentration. The U.S. Environmental Protection Agency (USEPA) requires monitoring sites be capable of informing air pollution control officers about peak air pollution levels, typical levels in populated areas, air pollution transported into and out of a city or region, and air pollution levels near specific sources. Monitors must be designated with an appropriate site type so that the data collected can be used to support a specific federal monitoring objective.[4]

Air Quality Impacts

Antelope Valley Air Quality Management District Thresholds

AVAQMD is the regulatory agency responsible for improving air quality for large areas for the northern desert portion of Los Angeles County. The Project Site is located within the Mojave Desert Air Basin, which is a distinct geographic subarea within the AVAQMD's jurisdiction.

The AVAQMD monitors air quality at one monitoring station throughout the Basin.[5] Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentration. The closest air monitoring station to the Project Site that monitors CO, NO_2, O_3, PM2.5, and PM10 is the Lancaster Monitoring Station, located approximately 32 miles northwest of the Project Site at 43301 Division Street.[6] This data is designated as representative at the neighborhood scale (0.5 to 4.0 kilometers). The unincorporated Los Angeles County land surrounding the Project Site is developed at a far lower intensity than land uses within Lancaster, meaning that the data from the Lancaster Monitoring Stations are likely substantially over predicting ambient levels at the Project Site. Nonetheless, it is the most applicable data available for all pollutants.

Local Air Quality

The air quality data from 2020 to 2022 monitored at the Lancaster 43301 Division Street. –Monitoring Stations is presented in **Table 1: Summary of Air Quality Data**. This table lists the monitored maximum concentrations and number of exceedances of State/Federal air quality standards for each year.

---

4 California Air Resources Board, *Annual Network Plan, Covering Monitoring Operations in 25 California Air Districts*, https://avaqmd.ca.gov/files/d71e27d0f/2021+Annual+Network+Plan.pdf, accessed December 19, 2023.

5 Antelope Valley Air Quality Management District (AVAQMD), Ambient Air Monitoring, https://avaqmd.ca.gov/ambient-air-monitoring, accessed December 19, 2023.

6 Antelope Valley Air Quality Desert (AVAQMD), Sites Operated by the Antelope Valley AQMD https://ww3.arb.ca.gov/qaweb/districtselect.php?a_airs_code=071, accessed December 19, 2023.

The attainment status for various pollutants in the Basin are listed in **Table 2: Federal and State Ambient Air Quality Attainment Status**. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Areas for which there is insufficient data available are designated unclassified. As shown in **Table 2**, the Project Site is a Federal nonattainment area for O_3 and a state nonattainment area for O_3 and PM10. The Project Site is classified as attainment or unclassified for lead, visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Table 1: Summary of Air Quality Data

Pollutant	California Standard	Federal Primary Standard	Year	Maximum Concentration[1]	Days (Samples) State/Federal Std. Exceeded
Ozone (O_3) (8-hour)[2]	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2020 2021 2022	0.083 ppm 0.079ppm 0.082ppm	8/8 3 / 4 36/ 33
Ozone (O_3) (1-hour)[2]	0.09 ppm for 1 hour	NA[6]	2020 2021 2022	0.099 ppm 0.086ppm 0.098ppm	4/0 0 / 0 3/ 0
Carbon Monoxide (CO) (1-hour)[2]	20 ppm for 1 hour	35 ppm for 1 hour	2020 2021 2022	1.617ppm 1.416 ppm 1.380 ppm	0 / 0 0 / 0 0 / 0
Nitrogen Dioxide (NO_2)[2]	0.180 ppm for 1 hour	0.100 ppm for 1 hour	2020 2021 2022	0.052 ppm 0.046ppm 0.044 ppm	0 / 0 0 / 0 0 / 0
Fine Particulate Matter (PM2.5)[2]	No Separate Standard	35 µg/m^3 for 24 hours	2020 2021 2022	74.7mg/m^3 35.7mg/m^3 15.1 mg/m^3	9/9 1/1 0/0
Particulate Matter (PM10)[2]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours[7]	2020 2021 2022	192.3 mg/m^3 411.3mg/m^3 76.3 mg/m^3	40/1 20/1 9/0

ppm = parts per million; PM10 = particulate matter 10 microns in diameter or less; mg/m^3 = micrograms per cubic meter; PM2.5 = particulate matter 2.5 microns in diameter or less

Notes:
1. Maximum concentration is measured over the same period as the California Standards.
2. Data collected from the Lancaster Monitoring Station located at 43301 Division Street.
3. The Federal standard for 1-hour ozone was revoked in June 2005.
4. The Federal standard for average PM10 was revoked in December 2006.

Sources:
For CO and NO_2 see California Air Resources Board, *AQMIS2: Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed December 19, 2023.
For all other pollutants, see California Air Resources Board, *ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed December 19, 2023.

Table 2: Federal and State Ambient Air Quality Attainment Status		
Pollutant	**Federal**	**State**
Ozone (O_3)	Non-attainment[1]	Non-attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment
Coarse Particulate Matter (PM10)	Unclassified/Attainment	Nonattainment
Fine Particulate Matter (PM2.5)	Unclassified/Attainment	Unclassified
Source: Antelope Valley Air Quality Management District, *Attainment Status,* https://avaqmd.ca.gov/files/e0986ab83/AVAQMD+2017+Attainment+Status+Table.pdf, accessed December 19, 2023.		

REGULATORY FRAMEWORK

Federal

Clean Air Act

The federal Clean Air Act (CAA), which was initially established by the U.S. Congress in 1970 and substantially revised in 1977 and 1990, can be found in Title 42, Chapter 85 of the United States Code. An important aspect of the CAA is its requirement for the USEPA to establish National Ambient Air Quality Standards (NAAQS). There are NAAQS in place for seven "criteria" pollutants: CO, lead, NO_2, O_3, particle matter (PM10 and PM2.5), and SO_2. Standards are classified as primary and secondary. Primary standards are designed to protect public health, including sensitive individuals, such as children and the elderly, whereas secondary standards are designed to protect public welfare, such as visibility and crop or material damage. The USEPA sets the NAAQS based on a process that involves science policy workshops, a risk/exposure assessment (REA) that draws on the information and conclusions of the science policy workshops to development quantitative characterizations of exposures and associated risks to human health or the environment, and a policy assessment by USEPA staff that bridges the gap between agency scientific assessments and the judgments required of the USEPA administrator, who then takes the proposed standards through the federal rulemaking process.[7] The NAAQS are set to be protective of human health.

The CAA requires the USEPA to routinely review and update the NAAQS in accordance with the latest available scientific evidence. For example, the USEPA revoked the annual PM10 standard in 2006 due to a lack of evidence linking health problems to long-term exposure to PM10 emissions. The 1-hour standard for O_3 was revoked in 2005 in favor of a new 8-hour standard that is intended to better protect public health.

[7] United States Environmental Protection Agency (EPA), *Process of Reviewing the National Ambient Air Quality Standards*, https://www.epa.gov/criteria-air-pollutants/process-reviewing-national-ambient-air-quality-standards, accessed December 19, 2023.

CAA Section 182(e)(5) allows the USEPA administrator to approve provisions of an attainment strategy in an extreme area that anticipates development of new control techniques or improvement of existing control technologies if the state has submitted enforceable commitments to develop and adopt contingency measures to be implemented if the anticipated technologies do not achieve planned reductions.

Nonattainment areas are required to develop their air quality management plans to include specific emission reduction strategies to meet interim milestones in implementing emission controls and improving air quality. The USEPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the act. If a state fails to correct these planning deficiencies within two years of federal notification, the USEPA is required to develop a Federal Implementation Plan for the identified nonattainment area or areas.

State

California Clean Air Act

The California Clean Air Act requires all air pollution control districts in the state to aim to achieve and maintain state ambient air quality standards for O_3, CO, and NO_2 by the earliest practical date and to develop plans and regulations specifying how the districts will meet this goal. There are no planning requirements for the state PM_{10} standard.

CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting state requirements of the CAA, administrating the California Clean Air Act, and establishing the California Ambient Air Quality Standards (CAAQS). The California Clean Air Act, amended in 1992, requires all air districts in the state to endeavor to achieve and maintain the CAAQS. California law does not require that CAAQS be met by specified dates as is the case with NAAQS. Rather, it requires incremental progress toward attainment.[8] California law continues to mandate CAAQS, although attainment of the NAAQS has precedence over attainment of the CAAQS due to federal penalties for failure to meet federal attainment deadlines.

The CAAQS are generally stricter than national standards for the same pollutants, but there is no penalty for nonattainment. Similar to the federal process, the standards for the CAAQS are adopted after review by CARB staff of the scientific literature produced by agencies such as the Office of Environmental Health Hazard Assessment (OEHHA), the Air Quality Advisory Committee, which is comprised of experts in health sciences, exposure assessment, monitoring methods, and atmospheric sciences appointed by the Office of the President of the University of California, and public review and comment. [9] The CAAQS are set at levels determined to be protective of human health.

---

8 California Air Resources Board, *California Ambient Air Quality Standards*, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards, accessed December 19, 2023.

9 California Air Resources Board, *California Ambient Air Quality Standards*, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards, accessed December 19, 2023.

State Implementation Plans

An important component of the AVAQMD's air quality planning strategy is contained in the State Implementation Plan (SIP) for the State of California. The CAA requires all states to submit a SIP to the USEPA. This statewide SIP is often referred to as an "infrastructure" SIP. Infrastructure SIPs are administrative in nature and describe the authorities, resources, and programs a state has in place to implement, maintain, and enforce the federal standards. It does not contain any proposals for emission control measures.

In addition to infrastructure SIPs, the Clean Air Act requires submissions of SIPs for areas that are out of compliance with the NAAQS. These area attainment SIPs are comprehensive plans that describe how an out-of-compliance area will attain and maintain the particular NAAQS standard(s) it does not conform to. Once an out-of-compliance area has attained the standard in question, a maintenance SIP is required for a period of time to ensure the area will continue to meet the standard.

SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, State regulations, and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to SIPs. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards those revisions to the USEPA for approval and publication in the Federal Register.

Local

Antelope Valley Air Quality Management District (AVAQMD)

AVAQMD Federal 8-hour Ozone Attainment Plan (Western Mojave Desert Non-Attainment Area)

On April 20, 2004, the USEPA designated the Southern Desert nonattainment area as nonattainment O_3 NAAQS pursuant to the provisions of the Federal CAA. The Southern Desert Ozone Nonattainment Area includes the Antelope Valley portion of Los Angeles County.

Final Mojave Desert Planning Area Federal Particulate Matter 10 (PM10) Attainment Plan

On January 20, 1994, the USEPA re-designated a significant portion of the Mojave Desert as a nonattainment area with respect to the PM10 NAAQS. This nonattainment area covers a vast geographical region, including the urban areas of Victor Valley and Barstow, the Morongo Basin, along with the rural desert environs reaching to the Nevada and Arizona state lines. The PM10 Attainment Plan was prepared in July 1995 to provide a complete description and submittal to USEPA of the PM10 attainment planning elements which the AVAQMD will implement to bring the nonattainment area into compliance with federal law. Most importantly, the PM10 Attainment Plan serves as a planning tool for reducing PM10 pollution. The PM10 Attainment Plan sets forth an air quality improvement program for the region which will be implemented by both the public and private sector of the community.

AVAQMD Rules

The AVAQMD has adopted rules to limit air emissions. Many of these rules were put in place as required by measures specified in various SIPs and air quality management plans. The AVAQMD rules that are applicable to the Project include, but are not limited to, those listed below:

- Rule 201 – Written Authorization. This rule prohibits the building, erection, installation, alteration, or replacement of any equipment that may affect the issuance of air contaminates without first obtaining written authorization for such construction from the Air Pollution Control Officer.
- Rule 203 – Permit to Operate. This rule prohibits the operation of equipment that may affect the issuance of air contaminates without first obtaining a written permit from the Air Pollution Control Officer.
- Rule 206 – Posting of Permit to Operate. Permits and written authorizations granted under Rule 201 and/or 203 must be posted to be completely visible on the equipment Rule 401 – Visible Emissions. This rule prohibits discharges of air contaminants or other material, which are as dark or darker in shade as that designated No. 1 on the Ringelmann Chart.
- Rule 402 – Nuisance. This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.
- Rule 403 – Fugitive Dust. The purpose of this rule is to control the amount of PM entrained in the atmosphere from manmade sources of fugitive dust. The rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area to be visible beyond the emission source's property line.
- Rule 404 – Particulate Matter Concentration. Prohibits discharge from any source of particulate matter in excess of the concentration at standard conditions, shown in Table 404(a) of Appendix B.
- Rule 409 – Combustion Contaminants. Prohibits the burning of fuel that results in the discharge of contaminants exceeding 0.23 grams per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO2) at standard conditions averaged over a minimum of 15 consecutive minutes.
- Rule 431 – Sulfur Content in Fuels. Limits the sulfur content in fuels during combustion in stationary equipment.
- Rule 474 – Fuel Burning Equipment. Limits the emissions of oxides of nitrogen (NOx) from non-Mobile, Fuel Burning Equipment.

<u>Antelope Valley Area Plan</u>

The Antelope Valley Area Plan (AVAP) was adopted on June 16, 2015. The Plan contains goals and policies that guide future development in the Antelope Valley. Goals and policies outlined in Conservation and Open Space Element describe how to improve air quality that are relevant to this Project.

Conservation and Open Space Element

Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.

> Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed.
>
> Policy COS 10.5: Encourage the development of emerging energy technologies, such as "solar roads."

Goal COS 12: Individual energy systems for onsite use that reduce consumption of non-renewable resources and dependence on utility-scale energy production facilities.

> Policy COS 12.1: Promote the use of individual renewable energy systems throughout the County to complement and reduce dependence upon utility-scale renewable energy facilities.
>
> Policy COS 12.2: Require appropriate development standards for individual renewable energy systems to minimize potential impacts to surrounding properties. Simplify the permitting process for individual renewable energy systems that meet these development standards.

Goal COS 13: Utility-scale energy production facilities for offsite use that reduce consumption of nonrenewable resources while minimizing potential impacts on natural resources and existing communities.

> Policy COS 13.1: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.
>
> Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.

<u>Los Angeles County General Plan 2035</u>

The Los Angeles County General Plan 2035 establishes the long-range vision, goals, policies, and programs for the unincorporated areas of Los Angeles County. The goals and policies outlined in the Air Quality Element are relevant to the proposed Project:

Air Quality Element

Goal AQ 1: Protection from exposure to harmful air pollutants

> Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.

Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.

Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.

Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use transportation and air quality planning.

Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses.

Goal AQ 3: Implementation of plans and programs to address the impacts of climate change.

Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.

Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015. Policy AQ 3.5: Encourage energy conservation in new development and municipal operations.

Policy AQ 3.6: Support rooftop solar facilities on new and existing buildings.

Los Angeles County Code of Ordinances

The Los Angeles County Code of Ordinances Chapter 12.32 *Control of Hazardous Dust Conditions* indicates that it is unlawful to disturb the surface or subsurface of land consisting 2.5 acres or more, excluding approved construction activities by excavating, smooth tillage, removing natural vegetation, or any other action which raises substantial dust into the atmosphere or which would create, contribute to, or aggravate conditions conducive to the raising of substantial dust into the atmosphere, without first having obtained a permit issued by the agriculture commissioner of the County of Los Angeles and having complied with the terms and conditions of the permit.

Los Angeles County Code of Ordinances Section 22.140.510 *Renewable Energy* establishes standards, conditions, and procedures that support and facilitate the development of small-scale solar energy systems, utility-scale solar energy facilities, temporary meteorological towers, and small-scale wind energy systems in a manner that protects public health, safety, and welfare and minimizes significant impacts to the environment. Section 22.140.510 requires that all utility-scale solar energy facilities include a conceptual dust control plan that must be reviewed and approved by applicable agencies prior to any earthwork practices. Fugitive dust control measures must be implemented during construction, including site watering, using clean gravel not to exceed a depth of six inches where appliable, application of non-toxic soil stabilizers, limiting public access on unpaved areas, posting private roadways with reduced speeds, and/or re-vegetation.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Project would have a significant impact in regard to air quality if one or more of the following would occur:

Threshold a): Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact AQ-1);

Threshold b): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard (refer to Impact AQ-2);

Threshold c): Expose sensitive receptors to substantial pollutant concentrations (refer to Impact AQ-3); or

Threshold d): Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact AQ-4).

AVAQMD Air Quality Thresholds

Under CEQA, the AVAQMD is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction. Under the CAA, the AVAQMD has adopted federal attainment plans for O_3 and PM10. The AVAQMD has dedicated assets to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

According to the AVAQMD's *CEQA and Federal Conformity Guideline*, a project is significant if it triggers or exceeds the most appropriate evaluation criteria:

1. Generates total emissions (direct and indirect) in the excess of the thresholds given in **Table 3; AVAQMD Significant Emissions Thresholds**.

2. Generates a violation of any ambient air quality standard when added to the local background;

3. Does not conform with the applicable attainment or maintenance plan(s)[10];

[10] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

4. Exposes sensitive receptors to substantial pollution concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/ or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

Table 3: AVAQMD Significant Emissions Thresholds		
Criteria Pollutant	**Annual Threshold (tons)**	**Daily Threshold (pounds)**
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_X)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM10)	15	82
Fine Particulate Matter (PM2.5)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3
Source: Antelope Valley Air Quality Management District, *CEQA and Federal Conformity Guidelines*, page 7, August 2016.		

IMPACT ANALYSIS

Impact AQ-1: Would the Project conflict with or obstruct implementation of the appliable air quality plan?

The Project Site is located within the Mojave Desert Air Basin and is regulated by the AVAQMD. The AVAQMD PM10 Attainment Plan and Ozone Attainment Plan established under the Western Mojave Desert Air Quality Management Plans (AQMPs) set forth a comprehensive set of programs that will lead the Basin into compliance with Federal and State air quality standards. The control measures and related emission reduction estimates within the AVAQMD PM10 Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans is determined by:

- Demonstrating Project consistency with local land use plans and/or population projections (**Criterion 1**);
- Demonstrating Project compliance with applicable AVAQMD Rules and Regulations (**Criterion 2**); and
- Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards (**Criterion 3**).

Criterion 1: Consistency with local land use plans and/or population projections.

Growth projections included in the AQMPs form the basis for the projections of air pollutant emissions and are based on general plan land use designations and the Southern California Association of Governments (SCAG) *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016-

2040 RTP/SCS) demographics forecasts. While SCAG has recently adopted the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS), the AVAQMD has not released an updated AQMP that utilizes information from the 2020-2045 RTP/SCS. As such, this consistency analysis is based off the 2016-2040 RTP/SCS. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the County. The AVAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the AQMPs.

The AVAP is the local land use plan, which is a component of the County General Plan, that guides future development through various goals and policies.[11] The Project Site has a Land Use designation of Rural Land 10 (RL10) and is zoned A-2-2 (Heavy Agricultural Zone). Pursuant to the Los Angeles County Code of Ordinances Table 22.16.030, the use of utility-scale solar energy facilities is a permitted use with an approved CUP.

SCAG growth forecasts in the 2016-2040 RTP/SCS estimate unincorporated Los Angeles County's population to reach 1,273,700 persons by 2040, representing a total increase of 233,000 persons between 2012 and 2040.[12] Additionally, SCAG growth forecasts in the 2016-2040 RTP/SCS estimate the County's employment to reach 288,400 jobs by 2040, representing a total increase of 65,500 jobs between 2012 and 2040.[13]

The Project does not include a residential component and would not increase local population growth. The Project does not include a commercial component and would not substantially increase employment. Construction of the Project would not result in residential, commercial, or growth-inducing development that would result in a substantial increase in growth-related emissions. In addition, because of the presence of locally available construction workers, and because of the relatively short duration of construction (approximately seven months), workers are not expected to relocate to the area with their families.

The Project would operate year-round. Typical O&M activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. Therefore, limited operational staff would be required. As such, there would be no employee or population growth as a result of the Project, and the Project would not cause the SCAG growth forecast to be exceeded. As the AVAQMD has incorporated these forecasts on population, housing, and employment into the AQMPs, the Project would be consistent with the AQMPs. Impacts would be less than significant.

Criterion 2: Compliance with applicable AVAQMD Rules and Regulations.

---

11 Antelope Valley Area Plan, https://planning.lacounty.gov/wp-content/uploads/2022/10/Antelope-Valley-Area-Plan.pdf, accessed on December 19, 2023.

12 Southern California Association of Governments, *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy Demographics & Growth Forecast Appendix*, April 2016, accessed on December 19, 2023.

13 Ibid.

The Project would be required to comply with all applicable AVAQMD Rules and Regulations. This would include AVAQMD Rules 401, 402, and 403. AVAQMD Rule 403 requires periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust (PM10) emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions. The Project would comply with applicable AVAQMD rules, enforced through Project Conditions of Approval, and not conflict with applicable AVAQMD Rules and Regulations. Therefore, impacts would be less than significant.

Criterion 3: Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards.

Analysis of the Project's potential to result in more frequent or severe violations of the CAAQS and NAAQS can be satisfied by comparing Project emissions to AVAQMD thresholds. As discussed under Impact AQ-2 below, unmitigated short-term construction emissions would not exceed AVAQMD significance thresholds. Additionally, unmitigated long-term operational emissions of all criteria pollutants studied (NO_X, ROG, CO, NO_X, PM10, and PM2.5) would be less than the applicable AVAQMD significance thresholds. Therefore, the Project would not delay the Basin's attainment goals for O_3[14], PM10, and PM2.5, and would not result in an increase in the frequency or severity of existing air quality violations. As such, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, impacts would be less than significant.

Conclusion

As discussed above, the Project would comply with AVAQMD Rules and Regulations and would not induce population growth. Further, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, the Project would not result in or cause NAAQS or CAAQS violations. As such, the Project would be consistent with the AVAQMD AQMP and impacts would be less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

Impact AQ-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard?

Construction

Project construction involving the use of heavy-duty construction equipment is anticipated to be completed over a period of approximately seven months. The Project involves construction activities

[14] Ground level O_3 is created during a photochemical reaction from NO_X and ROG emissions.

associated with demolition, site preparation, grading, paving, construction/installation, and PV vendor trips.

Exhaust Emissions

Exhaust emissions (e.g., ROG, NO_x, and CO) from Project construction activities would include emissions associated with the transport of machinery and supplies/materials to and from the Project Site, emissions produced on-site as the equipment is used, and emissions from construction workers' personal vehicles traveling to/from the site. Mobile source criteria pollutant emissions are based on the actual number of worker trips and delivery truck trips associated with construction of the proposed Project.

Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2022.1.1.21 (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site.

The analysis includes emissions from delivering the construction materials and PV modules (panels) from the nearest port (a roundtrip distance of approximately 106 miles). Additionally, construction worker trip emissions are based on the maximum construction workforce (70 individuals) and the distance to the nearest populated areas (Lancaster and Palmdale; an average roundtrip distance of 47 miles). Further, as water is anticipated to be supplied by from an off-site source, a construction water truck trip length of 47 miles was accounted for in CalEEMod.

Fugitive Dust Emissions

Fugitive dust from site preparation and facilities construction activities is expected to be short-term and would cease upon completion of Project construction. The Project would implement all applicable AVAQMD dust control techniques, limitations on construction hours, and adhere to AVAQMD Rule 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM10 and PM2.5 concentrations. Additionally, the Project would comply with the Los Angeles County Code of Ordinances Chapter 12.32 *Control of Hazardous Dust Conditions* and Section 22.140.510 *Renewable Energy* regarding air pollution impacts in the form of fugitive dust.

Total Construction Emissions

The analysis of daily construction emissions has been prepared using CalEEMod. Refer to **Appendix A: Air Quality Emissions Data**, for the CalEEMod outputs and results. **Table 4: Construction-Related Emissions (Pounds per Day)** and **Table 5: Construction-Related Emissions (Tons per Year)** present the anticipated short-term construction emissions. As indicated in **Table 4** and **Table 5**, criteria pollutant emissions during Project construction would not exceed the AVAQMD significance thresholds. Therefore, total Project construction-related air emissions would be less than significant.

Table 4: Construction-Related Emissions (Pounds per Day)						
Construction Year	**Maximum Pounds Per Day[1]**					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025) [2]	2.79	25.3	30.7	0.06	5.01	2.26
AVAQMD Thresholds	***137***	***137***	***548***	***137***	***82***	***65***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Notes: 1. The highest values between summer and winter results were used as a worst-case scenario. 2. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.						
Source: CalEEMod version 2022.1.1.21 Refer to **Appendix A** for model outputs.						

Table 5: Construction-Related Emissions (Tons per Year)						
Construction Year	**Maximum Tons per Year[1]**					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025)	0.12	0.98	1.26	<0.005	0.19	0.09
AVQMD Thresholds	***25***	***25***	***100***	***25***	***15***	***12***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Notes: 1. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.						
Source: CalEEMod version 2022.1.1.21 Refer to **Appendix A** for model outputs.						

Operations

Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. **Table 6: Operational Emissions (Pounds per Day)** and **Table 7: Operational Emissions (Tons per Year)**, present the Project's anticipated mobile source (i.e., motor vehicle use), energy source, and area source emissions. Each of these sources are described below.

Table 6: Operational Emissions (Pounds per Day)						
	Maximum Pounds Per Day[1]					
Source	**ROG**	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	40.7	0.49	58.7	<0.005	0.10	0.08
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.01	0.40	0.06	<0.005	0.13	0.04
Total Emissions	*40.7*	*0.90*	*58.8*	*0.01*	*0.24*	0.12
AVAQMD Thresholds	***137***	***137***	***548***	***137***	***82***	***65***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding. 1. The highest values between summer and winter results were used as a worst-case scenario.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix A** for model outputs.						

Table 7: Operational Emissions (Tons per Year)						
	Maximum Tons per Year					
Source	**ROG**	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	6.53	0.04	5.28	< 0.005	0.01	0.01
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	<0.005	0.06	0.02	<0.005	0.02	0.01
Total Emissions	*6.53*	*0.010*	*5.29*	*<0.005*	*0.03*	0.01
AVAQMD Thresholds	***25***	***25***	***100***	***25***	***15***	***12***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix A** for model outputs.						

Area Source Emissions. Area source emissions would be generated due to potential BESS architectural coatings. Other typical area sources (e.g., consumer products, landscaping equipment, etc.) would not be utilized by the Project.

Energy Source Emissions. Energy source emissions would be generated due to electricity usage associated with the Project. The Project's operational activities would not consume natural gas. The Project would consume negligible amounts of electricity for auxiliary equipment, such as BESS HVAC units, communications equipment, and lighting.

Mobile Source Emissions. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM10, and PM2.5 are all

pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM10, and PM2.5); however, CO tends to be a localized pollutant, dispersing rapidly at the source. During operations, it is estimated that the Project would require 6 maintenance-related round trips and up to 4 solar panel and inverter washing roundtrips per year, resulting in approximately 10 total roundtrips per year (20 one-way trips); refer to **Appendix A** for assumptions and calculations.

Total Operational Emissions

As shown in **Table 6** and **Table 7**, estimated total Project operational emissions would not exceed established AVAQMD thresholds. Therefore, impacts associated with Project operational emissions would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors VOCs and NO_x affect air quality on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating criteria pollutants generated by an individual project to specific health effects or additional days of nonattainment would produce meaningless results. The NAAQS and CAAQS are set to be protective of human health, however, which means that the Project's less than significant increases in regional air pollution from criteria air pollutants would have less than significant impacts on human health.

The AVAQMD does not have clear thresholds or methodology to quantify health impacts of criteria pollutants from individual projects. Other air districts, including the South Coast Air Quality Management District (SCAQMD), have stated that it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants from individual projects for various reasons including modeling limitations as well as the fact that certain emissions are the result of chemical interactions and it is impossible to determine exactly where in the atmosphere precursor air pollutants will interact.[15]

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD has written that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at the site with the highest ozone levels by only nine parts per billion. As such, the SCAQMD concludes that it is not

[15] South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with less than a regional scope) due to photochemistry and regional model limitations.

Because the Project would not exceed AVAQMD's thresholds for construction and operational air emissions, the Project would have a less than significant impact for air quality health impacts as well and no modeling of health impacts was performed.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills. As shown in **Table 4** and **Table 5**, emissions would not exceed AVAQMD thresholds and impacts would be less than significant.

Cumulative Impacts

Cumulative Short-Term Construction Impacts

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMPs pursuant to CAA mandates. As such, the Project would comply with AVDAQMD Rule 403 greatest requirements and implement all applicable AVAQMD rules to reduce construction air emissions to the extent feasible. AVAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track out onto public roads, and the minimization of non-essential grading during high wind conditions. In addition, the Project would comply with adopted AQMPs emissions control measures. Implementation of AVAQMD Rule 403 and the AQMPs emissions control measures would help the Project further reduce emissions from construction activities. Pursuant to AVAQMD rules and mandates, these same requirements (i.e., Rule 403 compliance and compliance

with adopted AQMPs emissions control measures) would also be imposed on construction projects throughout the Basin, which would include cumulative projects.

As discussed in **Table 4** and **Table 5** above, the Project's estimated short-term construction emissions would be below the AVAQMD thresholds and would result in less than significant air quality impacts. Thus, the Project's construction emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the Basin. A less than significant impact would occur in this regard.

Cumulative Long-Term Operational Impacts

As discussed in **Table 6** and **Table 7**, the Project would not result in long-term operational air quality impacts. Additionally, adherence to AVAQMD rules and regulations alleviate cumulatively considerable contributions to potential significant impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed to address existing significant cumulative impacts. As a result, the Project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, no cumulative operational impacts associated with implementation of the Project would result.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

Impact AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, parks, daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a residential use located approximately 110 feet south. No schools, hospitals, or parks are located within two miles of the Project Site.

Construction

Project construction is anticipated to be completed over a period of approximately seven months. Project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit Diesel Particulate Matter (DPM). In 1998, the CARB identified diesel exhaust as a Toxic Air Contaminant (TAC). Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. Project construction would comply with the California Code of Regulations (CCR), Title 13, Section 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to nor more than five minutes. Implementation of these regulations would reduce the amount of DPM emissions from Project construction. The closest sensitive receptor is

located 110 feet (measured from the Project property line to the property line of the nearest sensitive receptor) south of the Project. Due to the distance between the Project Site and the closest sensitive receptors, potential health impacts on sensitive receptors associated with exposure to DPM from Project construction would be less than significant.

Furthermore, construction activities are expected to occur well below the 30-year exposure period used in health risk assessments. Emissions would be short-term and intermittent in nature, and therefore would not generate TAC emissions at high enough exposure concentrations to represent a health hazard. Therefore, construction of the Project would not result in a significant increase in elevated cancer risk to nearby sensitive receptors and impacts would be less than significant.

Operations

As stated in the Project Description, typical O&M activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. None of these activities would result in the generation of excessive TAC emissions, or associated health risks. Therefore, operation of the Project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors and potential impacts would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.). CO is primarily a product of incomplete combustion of gaseous or liquid fuels, meaning tailpipe emissions are worse in stop-and-go congested traffic as compared to free flowing conditions. The Project does not include any stationary sources of combustion, and results in a net increase of approximately 10 maintenance and solar panel washing roundtrips per year (20 one-way trips). The Project is not located near existing CO hotspots and the trips associated with the Project are insufficient to create a CO hotspot.

With such low existing ambient levels of CO, low levels of CO emissions from the Project, and lack of congested roadways around the Project, the Project would not cause CO hotspots in excess of applicable NAAQS or CAAQS standards at any intersections within the County. Impacts would be less than significant in this regard.

Naturally Occurring Asbestos.

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities.

According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks do not occur within the vicinity of the Project Site. Thus, there would be no impact in this regard.

Valley Fever

Coccidioidomycosis (CM), often referred to as San Joaquin Valley Fever or Valley Fever, commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top 2-12 inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust are also more likely to contract Valley Fever.

The fugus is known to live in the soil in the southwestern United States and parts of Mexico and Central and South America. People and animals can get sick when they breathe in dust that contains the Valley fever fungus. This fungus infects the lungs and can cause respiratory symptoms including cough, fever, chest pain, and tiredness. In California, the number of reported Valley fever cases has greatly increased in recent years. The number of Valley Fever cases in the United States has been steadily increasing over the past few years. There were over 20,000 reported cases in 2019, and the CDC estimates that an additional 150,000 cases go undiagnosed each year. About 32 percent of all cases occur in California.[16]

When a susceptible human who is not immune inhales these airborne spores, they enter the lungs and may cause respiratory infections, such as pneumonia. Roughly 60 percent of individuals infected with CI have no symptoms. For the remaining 40 percent, a wide spectrum of clinical symptoms can occur. The most common presentation of CM is a mild, influenza-like illness while the more severe includes pneumonia-like symptoms requiring rest and medication (fungus-killing medicines). The symptoms of the disease typically begin about two weeks after inhaling the spores. These symptoms typically include flu-like symptoms such as fever, aching, chills, sweats, fatigue, cough, and headache. In uncomplicated CM, symptoms usually subside in a few weeks or months.

[16] Center for Disease Control and Prevention, *Valley Fever (Coccidioidomycosis)* Statistics, https://www.cdc.gov/fungal/diseases/coccidioidomycosis/statistics.html, accessed December 19, 2023.

In approximately one percent of infected persons, disseminated disease develops, in which CM is spread from the lungs to other areas of the body such as the skin, bones, brain, or other organs. This spreading of CM infection beyond the lungs can be fatal. Meningitis, the most lethal complication of disseminated CM, may cause a stiff neck, severe and persistent headache, nausea, vomiting, and various other central nervous system symptoms such as disorientation, loss of balance or equilibrium, inability to think clearly and loss of consciousness. People with diabetes and women who contract CM while they are pregnant are particularly prone to dissemination of the disease.

Currently, no vaccine is available to prevent this infection. Further, there is no effective way to detect and monitor CI growth patterns in the soil. Thus, controlling the growth of the fungus in the environment to reduce the risk to individuals is currently not a viable option. A skin test can be conducted to identify individuals who have been infected in the past and would have developed immunity to the fungus, although recurrence as a result of immuno-suppression is possible. Even if the fungus is present in soil, earthmoving activities may not result in increased incidence of valley fever. Propagation of Coccidioides is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells.

To reduce exposure to CI, development projects implement measures to prevent wind dispersion of arthrospores, such as applying dust control palliatives, water, or vegetation to fungus-bearing soils. To facilitate early identification of infection and subsequent treatment. The Los Angeles County Code of Ordinances Section 22.140.510 requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403 and AVAQMD CEQA Guideline Fugitive Dust Control Measures. The California Department of Public Health recommends stopping outside activity during conditions where the dust cannot be controlled well. Appropriate use of respiratory protect may be also needed in some circumstances.

During ground disturbing activities associated Project construction, the potential exists that such activities could disturb dust particles and, if present, CI spores, which could then be released into the air and potentially be inhaled by on-site workers and nearby sensitive receptors; exposure to these spores can cause Valley Fever. Impacts during Project construction related to CI spores would be potentially significant.

AVAQMD Rule 403 requires that fugitive dust be controlled with the best available control measure in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of the best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track onto public roads and the minimization of non-essential grading during high wind conditions. Due to the distance of the nearest sensitive receptor, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. Although CEQA does not require the analysis of a Project's impacts on its construction workers, such analysis is included for informational purposes. The best approaches to reducing construction workers' risk of contracting Valley Fever are awareness and dust reduction because dust can be an indicator that increased efforts are needed to control other airborne particulates (including CI spores, if any). Compliance with AVAQMD rules reduce dust. For example, Rule 401 prohibits a person from discharging

into the atmosphere any air emission contaminant for a period or periods aggregating more than three minutes in any single hour emissions that is: (a) as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines; or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than 20 percent opacity. Rule 402 prohibits the discharge of air contaminants in quantities that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public. Additionally, the Project would be required to provide training and awareness of Valley Fever via **Mitigation Measure MM AQ-1**. **Mitigation Measure MM AQ-1** would further ensure worker safety through education and ensuring implementation of required California Division of Occupational Safety and Health (Cal/OSHA) safety measures.

With the implementation of **Mitigation Measure MM AQ-1**, the potential for the release of CI spores, if present, and the associated potential for workers or nearby residents to contract Valley Fever from Project construction activities would be minimized. Accordingly, the Project would not add significantly to the existing exposure level of construction workers or nearby residents to the CI fugus. Therefore, potential impacts would be less than significant with mitigation incorporated.

Impact Determination: Potentially Significant Impact.

Mitigation Measure:

MM AQ-1: Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction:

- An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever.
- Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction.
- Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.

- Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators.
- Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.

With implementation of **Mitigation Measure MM AQ-1**, potentially significant impacts related to sensitive receptor pollutant exposure related to Valley Fever would be reduced to less than significant levels.

Impact AQ-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

According to the CARB's *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project includes construction of a solar PV and energy storage facility and does not include any uses identified by the CARB as being associated with odors.

Project construction activities may generate detectable odors from heavy-duty equipment exhaust. However, construction-related odors would be short-term in nature and cease upon completion of Project construction. Further, the nearest potential residence is too far from the Project Site to detect construction odors. In addition, the Project would be required to comply with the CCR, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors, if any, from heavy-duty equipment exhaust. Therefore, potential impacts would be short-term and are considered less than significant.

As previously noted, land uses associated with odor complaints do not typically include PV electricity generation and energy storage facilities. During operations, the Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities.

It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in 10 total annual roundtrips (20 one-way trips). Project operational vehicle trips would be minimal and not of sufficient number to create concentrations of odorous fumes to form and cause a nuisance. As such, potential impacts would be easily dispersed in the atmosphere and are less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures*:* No mitigation is required.

REFERENCES

Antelope Valley Air Quality Management District (AVAQMD), https://avaqmd.ca.gov/ambient-air-monitoring, accessed December 19, 2023.

Antelope Valley Air Quality Management District, CEQA and Federal Conformity Guidelines, page 7, August 2016.

Antelope Valley Air Quality Management District, *Attainment Status,* https://avaqmd.ca.gov/files/e0986ab83/AVAQMD+2017+Attainment+Status+Table.pdf, accessed December 19, 2023

Antelope Valley Area Plan, https://planning.lacounty.gov/wp-content/uploads/2022/10/Antelope-Valley-Area-Plan.pdf, accessed on December 19, 2023.

California Air Resources Board, *ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed December 19, 2023.

California Air Resources Board, *AQMIS2: Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed December 19, 2023

California Air Resources Board, Quality Assurance Air Monitoring Site Information, *Site Information for Lancaster 4331 Division Street* , Quality Assurance Air Monitoring Site Information (ca.gov), accessed December 19, 2023.

California Air Resources Board, Annual Network Plan, Covering Monitoring Operations in 25 California Air Districts, https://avaqmd.ca.gov/files/d71e27d0f/2021+Annual+Network+Plan.pdf, accessed December 19, 2023.

Center for Disease Control and Prevention, *Valley Fever (Coccidioidomycosis)* Statistics, https://www.cdc.gov/fungal/diseases/coccidioidomycosis/statistics.html, accessed December 19, 2023.

Los Angeles County Department of Regional Planning. June 2015. Antelope Valley Area Plan. https://planning.lacounty.gov/wp-content/uploads/2022/10/Antelope-Valley-Area-Plan.pdf, accessed December 19, 2023.

Los Angeles County Department of Regional Planning, 2022, Los Angeles County Final General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 19, 2023.

Los Angeles County Code of Ordinances, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO, accessed December 19, 2023.

Mojave Desert Air Quality Management District, *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, February 2020.

San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno, 2014.*

South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

Southern California Association of Governments, *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy Demographics & Growth Forecast,* April 2016.

State of California Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2020-2023 with 2023 Benchmark*, May 2023. https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/, accessed December 19, 2023.

United States Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed December 19, 2023.

United States Environmental Protection Agency (EPA), *Process of Reviewing the National Ambient Air Quality Standards*, https://www.epa.gov/criteria-air-pollutants/process-reviewing-national-ambient-air-quality-standards, accessed December 19, 2023.

Appendix A

Air Quality Emissions Data

230th Street Solar Project Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

3.3. Site Preparation (2025) - Unmitigated

3.5. Grading (2025) - Unmitigated

3.7. Construction/Installation (2025) - Unmitigated

3.9. PV Vendor Trip (2025) - Unmitigated

3.11. Paving (2025) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	230th Street Solar Project
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	6.30
Precipitation (days)	22.6
Location	230th St W & W Avenue C 8, California 93536, USA
County	Los Angeles-Mojave Desert
City	Unincorporated
Air District	Antelope Valley AQMD
Air Basin	Mojave Desert
TAZ	6809
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

User Defined Industrial	31.0	User Defined Unit	31.0	1,350,360	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	40.7	0.90	58.8	0.01	0.11	0.13	0.24	0.09	0.03	0.12	0.00	700	700	0.01	0.07	1.04	723
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	31.0	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	0.00	458	458	< 0.005	0.07	0.03	480
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.15	35.8	0.55	29.0	< 0.005	0.06	0.09	0.15	0.04	0.02	0.07	0.00	446	446	0.01	0.05	0.32	463
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	6.53	0.10	5.29	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	0.00	73.9	73.9	< 0.005	0.01	0.05	76.6

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.40	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	1.04	481
Area	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	10.4	40.7	0.90	58.8	0.01	0.11	0.13	0.24	0.09	0.03	0.12	0.00	700	700	0.01	0.07	1.04	723
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	0.03	480
Area	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	31.0	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	0.00	458	458	< 0.005	0.07	0.03	480
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	< 0.005	0.30	0.04	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	327	327	< 0.005	0.05	0.32	343
Area	5.15	35.8	0.24	29.0	< 0.005	0.05	—	0.05	0.04	—	0.04	—	119	119	< 0.005	< 0.005	—	120
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	5.15	35.8	0.55	29.0	< 0.005	0.06	0.09	0.15	0.04	0.02	0.07	0.00	446	446	0.01	0.05	0.32	463

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.2	54.2	< 0.005	0.01	0.05	56.8
Area	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.94	6.53	0.10	5.29	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	0.00	73.9	73.9	< 0.005	0.01	0.05	76.6

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.25	0.25	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.97	0.87	< 0.005	0.04	—	0.04	0.04	—	0.04	—	150	150	0.01	< 0.005	—	151

Demolitio	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.9	24.9	< 0.005	< 0.005	—	24.9
Demolitio n	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.04	2.52	0.43	0.02	0.04	0.74	0.77	0.04	0.21	0.24	—	2,656	2,656	< 0.005	0.42	0.15	2,781
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.9	59.9	< 0.005	< 0.005	0.12	60.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.11	122
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.02	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.3	19.3	< 0.005	< 0.005	0.02	20.2

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27	1.07	10.2	9.42	0.02	0.44	—	0.44	0.41	—	0.41	—	1,668	1,668	0.07	0.01	—	1,674
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.59	0.54	< 0.005	0.03	—	0.03	0.02	—	0.02	—	96.0	96.0	< 0.005	< 0.005	—	96.3
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.9	15.9	< 0.005	< 0.005	—	15.9

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72	1.44	14.8	13.9	0.04	0.63	—	0.63	0.58	—	0.58	—	4,262	4,262	0.17	0.03	—	4,276
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.85	0.80	< 0.005	0.04	—	0.04	0.03	—	0.03	—	245	245	0.01	< 0.005	—	246
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.6	40.6	< 0.005	< 0.005	—	40.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Construction/Installation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.91	2.44	20.2	20.7	0.05	0.84	—	0.84	0.77	—	0.77	—	4,845	4,845	0.20	0.04	—	4,862
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.27	2.27	2.32	0.01	0.09	—	0.09	0.09	—	0.09	—	544	544	0.02	< 0.005	—	546
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	90.1	90.1	< 0.005	< 0.005	—	90.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.03	0.03	1.14	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,473	1,473	< 0.005	0.21	4.42	1,539
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.07	0.80	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	153	153	0.01	0.01	0.29	155
Vendor	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	166	166	< 0.005	0.02	0.21	173
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.4	25.4	< 0.005	< 0.005	0.05	25.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.4	27.4	< 0.005	< 0.005	0.04	28.6

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. PV Vendor Trip (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	0.87	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	137
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.97	8.97	< 0.005	< 0.005	—	9.00
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.48	1.48	< 0.005	< 0.005	—	1.49

Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.01	0.44	0.10	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	601	601	< 0.005	0.08	1.81	628
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.5	39.5	< 0.005	0.01	0.05	41.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.54	6.54	< 0.005	< 0.005	0.01	6.83
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.63	7.63	< 0.005	< 0.005	—	7.66
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.26	1.26	< 0.005	< 0.005	—	1.27
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.2	41.2	< 0.005	< 0.005	0.08	41.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.81	6.81	< 0.005	< 0.005	0.01	6.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	0.01	0.01	0.40	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	1.04	481
Total	0.01	0.01	0.40	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	1.04	481
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.01	0.01	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	0.03	480
Total	0.01	0.01	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	0.03	480
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.2	54.2	< 0.005	0.01	0.05	56.8
Total	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.2	54.2	< 0.005	0.01	0.05	56.8

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	10.4	9.64	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Total	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.94	0.87	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Total	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2025	1/22/2025	5.00	16.0	—
Site Preparation	Site Preparation	1/23/2025	2/20/2025	5.00	21.0	—
Grading	Grading	2/21/2025	3/23/2025	5.00	21.0	—
Construction/Installation	Building Construction	4/8/2025	6/3/2025	5.00	41.0	—
PV Vendor Trip	Building Construction	6/4/2025	7/7/2025	5.00	24.0	—
Paving	Paving	3/24/2025	4/7/2025	5.00	11.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Off-Highway Trucks	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Skid Steer Loaders	Diesel	Average	1.00	8.00	423	0.48
Grading	Rollers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Cranes	Diesel	Average	1.00	8.00	82.0	0.20
Construction/Installation	Other Construction Equipment	Diesel	Average	1.00	8.00	14.0	0.74
Construction/Installation	Bore/Drill Rigs	Diesel	Average	1.00	7.00	367	0.29
Construction/Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	46.0	0.45
Construction/Installation	Excavators	Diesel	Average	1.00	7.00	84.0	0.37
Construction/Installation	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Construction/Installation	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Construction/Installation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Construction/Installation	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
PV Vendor Trip	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	37.0	0.48
Paving	Rollers	Diesel	Average	1.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	41.0	47.0	LDA,LDT1,LDT2
Demolition	Vendor	—	0.00	HHDT,MHDT
Demolition	Hauling	22.0	37.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	41.0	47.0	LDA,LDT1,LDT2
Site Preparation	Vendor	11.0	47.0	HHDT,MHDT
Site Preparation	Hauling	0.00	0.00	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	41.0	47.0	LDA,LDT1,LDT2
Grading	Vendor	11.0	47.0	HHDT,MHDT
Grading	Hauling	0.00	0.00	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	41.0	47.0	LDA,LDT1,LDT2
Paving	Vendor	0.00	0.00	HHDT,MHDT
Paving	Hauling	0.00	0.00	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Construction/Installation	—	—	—	—
Construction/Installation	Worker	41.0	47.0	LDA,LDT1,LDT2
Construction/Installation	Vendor	11.0	47.0	HHDT,MHDT

Construction/Installation	Hauling	0.00	0.00	HHDT
Construction/Installation	Onsite truck	0.00	0.00	HHDT
PV Vendor Trip	—	—	—	—
PV Vendor Trip	Worker	0.00	0.00	LDA,LDT1,LDT2
PV Vendor Trip	Vendor	2.00	106	HHDT,MHDT
PV Vendor Trip	Hauling	0.00	0.00	HHDT
PV Vendor Trip	Onsite truck	0.00	0.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
PV Vendor Trip	0.00	0.00	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,613	—
Site Preparation	—	—	10.5	0.00	—

Grading	—	—	10.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	3.00	0.00	0.00	782	141	0.00	0.00	36,761

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	2,025,540	675,180	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Industrial	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.9	annual days of extreme heat
Extreme Precipitation	3.50	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	11.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	75.4
AQ-PM	2.66
AQ-DPM	5.23
Drinking Water	79.0
Lead Risk Housing	26.3
Pesticides	46.2
Toxic Releases	38.6
Traffic	27.1
Effect Indicators	—
CleanUp Sites	58.2

Groundwater	35.0
Haz Waste Facilities/Generators	74.7
Impaired Water Bodies	33.2
Solid Waste	76.4
Sensitive Population	—
Asthma	50.3
Cardio-vascular	48.9
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.5
Housing	37.5
Linguistic	7.38
Poverty	61.8
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	54.70293853
Employed	9.136404466
Median HI	39.4199923
Education	—
Bachelor's or higher	33.8380598
High school enrollment	100
Preschool enrollment	1.873476197
Transportation	—

Auto Access	98.98626973
Active commuting	19.70999615
Social	—
2-parent households	49.7754395
Voting	0.769921725
Neighborhood	—
Alcohol availability	91.7875016
Park access	21.18567946
Retail density	2.771718209
Supermarket access	5.479276274
Tree canopy	58.5268831
Housing	—
Homeownership	81.40639035
Housing habitability	70.38367766
Low-inc homeowner severe housing cost burden	21.59630438
Low-inc renter severe housing cost burden	89.60605672
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	46.81124086
Arthritis	0.0
Asthma ER Admissions	66.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	3.0
Cognitively Disabled	48.3
Physically Disabled	7.0
Heart Attack ER Admissions	51.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	98.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	26.5
SLR Inundation Area	0.0
Children	98.6
Elderly	16.2
English Speaking	73.9
Foreign-born	8.5
Outdoor Workers	11.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	99.8
Traffic Density	33.4
Traffic Access	23.0
Other Indices	—

Hardship	36.8
Other Decision Support	—
2016 Voting	71.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	38.0
Healthy Places Index Score for Project Location (b)	26.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on Project description
Construction: Construction Phases	Changes according to client construction schedule revised December 5, 2023.
Construction: Off-Road Equipment	changes according to client construction schedule
Construction: Trips and VMT	According to Project assumptions

Construction: Architectural Coatings	No architectural coating
Operations: Vehicle Data	Adjusted based on Project Assumptions Non Res W-O 47 miles 66.67 % Non Res O-O 47 miles 33.33%
Operations: Fleet Mix	Fleet Mix according to Project Description and Project Assumptions

Version 2, December 5, 2023

230th Street

Phase	Start Date	End Date	Work Days
Demolition	1/1/2025	1/22/2025	15
Site Preparation	1/23/2025	2/20/2025	20
Grading	2/21/2025	3/23/2025	22
Paving	3/24/2025	4/7/2025	10
Construction/Installation	4/8/2025	6/3/2025	40
PV Panel vendor Trips	6/4/2025	7/7/2025	23

Equipment List

Demolition	
Dozer	2
Excavator	3
Concrete/industrial straws	1
Site Preparation	
Tractor/loader/backhoe	1
Dozers	1
Grading	
Excavators	1
Rubber Tired Dozers	1
Off-Highway Trucks	1
Skid Steer Loaders	1
Rollers	1
Construction/Installation	
Cranes	1
Pile driver rig	1
Drill rig	1
Tractors/Loaders/Backhoes	1
Excavators	1
Off-Highway Trucks	1
concrete truck	1
Rubber Tired Dozers	1
Trenchers	1
Skid steer	1
PV Vendor Trips	
Tractor/Loader/Backhoe	1
Paving	
Rollers	1

Worker Trips

	Distance from Project Site	Population[1]	%	Peak Workers
Lancaster	28	173,376	104%	36
Palmdale	37	165,917	49%	34
Totals	*65*	*339,293*		*70*
		Trip Length (miles):	**47**	
		Estimated Worker Trips[2]:	**41**	

Notes:
1. California Department of Finance Demographic Research Unit, Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2021-2023, 1/1/2023
2. Based on the Los Angeles County Average Vehicle Occupancy rate for home-work trips within the *Year 2000 Post-Census Regional Travel Survey* , Table 12, prepared by Southern California Association of Governments, dated 2003.

PV Panel Vendor Trips

	Distance from Project Site	Trips/Day[1]	System Installation (# Days)	Total Trips
Port of Long Beach	106	2	47	95

Notes:
1. A similar project in Los Angeles County assumed 5 trips per day (113 days) from the Port of Long Beach for system installation (130 MW). Since the project is 7.5 MW, scaled down the trips/day to 5% of the other project.

Notes:
CalEEMod Worker Trips: Roundtrip
CalEEMod Vendor Trips: Roundtrip

Water Truck Trips (Off-Site Wells)

	Distance Traveled	Trips/Day[1]	System Installation (# Days)	Total Trips[2]
Site Prep	47	11	22	242
Grading	47	11	44	484
Construction/Installation	47	11	41	451
			Total	1,177

Notes:

1. For another solar project, during a 6-month construction, the project will use 13 acre-feet or 4,236,000 gallons
2.Using similar methodology, each water truck would hold an average of 4,697 gallons (4,236,000 gallons/4,697 gallons per truck = 902 trucks total. 902 total trucks / 87 total days site prep grading and construction = 11 trucks per day). Water trucks hold anywhere from 2,000 to as much as 20,000 gallons.
3.Trips assumed as Vendor trips. Distance is 47 miles based on off-site well extraction.

THAT DISTANCE IS HAULING	**37 miles to the Antelope Valley**
DISTANCE FOR	**Landfill**
DEMOLITION	

Operational Trips: The Project is exepcted to generate a total of approximatley 20 operational trips per year.

AQ Trip Rate: 0.0967742

GHG Trip Rate: 0.0015

*2 panel washing, 1 water truck

	Non Res W-O (panel washing)	Non Res O-O (water truck)
Length (miles)	47	47
Purpose and Percentages	66.67	33.33
Fleet Mix	HHD%	100

Appendix C-1

Biological Resources Assessment

Kimley»Horn

230TH STREET SOLAR PROJECT, BIOLOGICAL RESOURCES ASSESSMENT

LOS ANGELES COUNTY, CALIFORNIA

FEBRUARY 2023, UPDATED OCTOBER 2024

ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THIS DOCUMENT AND ONLY FOR THE SPECIFIC PROJECT FOR WHICH THIS REPORT WAS PREPARED.

Prepared for:

Stephanie Loucas
Chief Development Officer
RPCA Solar 12, LLC
Renewable Properties, LLC
44 Montgomery Street, Suite 3150San Francisco, CA 94104

230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

Prepared by:

Lisa Achter
Senior Wildlife Biologist

Reviewed by:

Susan Dewar
Senior Ecologist, Project Manager

KLEINFELDER
2882 Prospect Park Drive, Suite 200
Rancho Cordova, CA 95670

February 2023, Updated October 2024
Kleinfelder Project No. 20234230.001A

TABLE OF CONTENTS

Section **Page**

SUMMARY **1**

1 INTRODUCTION **2**
1.1 Background and Project Description 2
1.2 Objectives 2
1.3 Project Location 2

2 REGULATORY SETTING **3**
2.1 Federal 3
2.2 State 4
2.3 Local 6

3 METHODS **7**
3.1 Desktop Review 7
3.2 Definition of Special-Status Species 8
3.2.1 Special-Status Wildlife Species 8
3.2.2 Special-Status Plant Species 8
3.3 Field Survey 9

4 RESULTS **9**
4.1 Biological Setting 9
4.2 Existing Habitats 9
4.2.1 Soils 9
4.2.2 Vegetation Communities 10
4.3 Special-Status Wildlife Species with Potential To Occur in the Project Area 11
4.3.1 Special-Status Wildlife Species 12
4.3.2 Special-Status Plant Species 13
4.4 Critical Habitat 13
4.5 Potentially Jurisdictional Aquatic Resources 13
4.6 Wildlife Corridors and Habitat Linkages 14
4.7 Common Wildlife Species 14

5 RECOMMENDATIONS **14**

6 REFERENCES CITED **17**

FIGURES
1 Regional/Vicinity
2 Project Area
3 Vegetation Communities
4 Photographs

APPENDICES
A Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California
B Special-Status Plant Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

230TH STREET SOLAR PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

SUMMARY

The proposed 230th Street Solar Project (Project) is located in a generally undeveloped area of Los Angeles County, approximately two miles east of the agricultural settlement of Neenach, California (Figure 1). In January of 2023, Kleinfelder biologist Bryan Nelson performed a desktop review of the Project vicinity and Kleinfelder biologist Ryan Hilgris conducted a field verification survey of the Project Area (Figure 2). The intent of the field verification survey was to identify and characterize existing on-site biological resources, to the extent possible, and determine the potential for special-status species and/or sensitive habitats (as defined by state and federal resource agencies) to occur on the site.

The field survey focused on the approximately 31-acre Project Area and a 50-foot buffer. Based on the results of the desktop review and field verification survey, four special-status wildlife species have a moderate potential to occur in the Project Area; however, no special-status plant species are expected to occur. No potentially jurisdictional waters of the U.S. or state were observed within or adjacent to the Project Area during the field survey.

This report serves to document the methods and results of the January 2023 biological field survey, provides updates and clarification based on LA County comments on the report, describes potential biological resource constraints associated with construction of a solar facility at the site, and provides recommendations to address these constraints.

1 INTRODUCTION

1.1 BACKGROUND AND PROJECT DESCRIPTION

The 230th Street Solar Project is a small-scale, ground-mounted utility-scale solar energy plus battery energy storage facility located on approximately 31 acres of an approximately 39-acre parcel (APN 3278-025-001). The parcel is located east of the community of Neenach in unincorporated Los Angeles County and is primarily undeveloped open space, apart from a residence in the southwestern corner of the parcel. RPCA Solar 12, LLC has entered into a long-term lease agreement with the property owners, Amilcar Ruben Badano and Debbie Badano, to facilitate the development and long-term operation of the Project.

The Project will generate a total of up to 4.99 megawatts (MW) alternating current (AC) (7.5 MW direct current [DC]) of clean, reliable solar energy when complete. The Project will interconnect to Southern California Edison's (SCE) pre-existing electrical distribution system located adjacent to the site. The power generated from this facility will be sold to SCE through a long-term Power Purchase Agreement (PPA). Additionally, the Project will be equipped with energy storage technology that will allow onsite renewable energy generation to be stored and dispatched onto the grid when needed.

The Project will utilize approximately 13,851 solar modules and 40 string inverters to convert the sun's energy into usable, AC power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers 8-12 feet below the ground surface. The overall height of the array will be no more than 15-feet tall. The Project is designed to comply with the development standards of the Los Angeles County Renewable Energy Ordinance, discussed in Section 2.3 below.

1.2 OBJECTIVES

The purpose of this analysis is to evaluate the Project Area to assess the potential for special-status plant and wildlife species and sensitive natural communities to occur, and the potential effects to these biological resources due to construction and operation of the Project. This assessment provides the methods and results of the field survey, including vegetation communities and land cover types present within the Project Area, special-status plant and wildlife species detected or with potential to occur within the Project Area, the presence of wildlife movement corridors or federally designated Critical Habitat within or adjacent to the Project Area, and any additional focused surveys necessary to further evaluate potential effects to biological resources that could occur within the Project Area. Recommendations to avoid and minimize impacts to these resources are provided in Section 5 of this document.

1.3 PROJECT LOCATION

The approximately 31-acre Project Area is located 0.25 mile north of California State Route 138, and on the east side of 230th Street West (Figure 2). The Project Area is situated at an elevation of approximately 2,820 feet above mean sea level and adjacent land uses in the vicinity of the Project Area are primarily undeveloped, although some rural residences occur sporadically in the Project vicinity, and there are several small to large-scale solar installations north and east of the Project Area.

The Project Area is situated within Township 20 North, Range 16 West, Section 13 of the Neenach School 7.5-minute U.S. Geological Survey (USGS) quadrangles. The corresponding latitude and longitude at the approximate center of the site is 34°46'48.87" north latitude and 118°32'04.69" west longitude.

2 REGULATORY SETTING

2.1 FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) prohibits the taking, possession, sale, or transport of endangered species. Pursuant to the requirements of FESA, a federal agency reviewing a proposed action within its jurisdiction must determine whether any federally listed threatened or endangered species could be present and determine the extent of effects to such species due to the proposed action. In addition, federal agencies are required to determine whether a proposed action is likely to jeopardize the continued existence of any species listed or proposed to be listed under FESA, or result in the destruction or adverse modification of critical habitat designated for such species (16 U.S. Code [USC] 1536[3], [4]). Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain authorization from the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

Federal Clean Water Act

Section 404

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (ACOE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The ACOE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

Section 401

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the authority to either grant certification or waive the

requirement for permits is delegated by the SWRCB to the nine regional boards. The Regional Water Quality Control Board (RWQCB) has authority for Section 401 compliance in the Project Area. A request for certification is submitted to the regional board at the same time that an application is filed with the ACOE.

2.2 STATE

California Endangered Species Act (CESA)

Under the CESA, the California Fish and Wildlife Commission (CFWC) has the responsibility of maintaining a list of threatened species and endangered species. The California Department of Fish and Wildlife (CDFW) also maintains lists of species of special concern. A Species of Special Concern (SSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally listed, but not State-listed, as threatened or endangered;
- meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

CESA prohibits the take of state-listed animals and plants in most cases, but CDFW may issue incidental take permits under special conditions. Pursuant to the requirements of CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present on the property and determine whether the project would have a potentially significant impact on such species.

California Fish and Game Code Sections 3503, 3511, 3513, 4150

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3511 states fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act. All nongame mammals, including bats, are protected by California Fish and Game Code 4150.

California Fish and Game Code Sections 1600-1616

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "… bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit ..." (Section 1601). In practice, the CDFW usually

marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

CDFW Wetlands Protection Regulations

CDFW derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the California Fish and Game Code (CFGC; lake and streambed alteration agreements), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on ACOE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and each RWQCB as the principal state agencies responsible for the protection of water quality in California. As noted above, the RWQCB has regulatory authority over the Project Area. The Porter-Cologne Water Quality Control Act provides that, "All discharges of waste into the waters of the State are privileges, not rights." Waters of the State are defined in Section 13050(e) of the Porter-Cologne Water Quality Control Act as "…any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. As noted above, the RWQCB is the appointed authority for Section 401 compliance in the Project Area.

California Environmental Quality Act

Although threatened and endangered species are protected by specific federal and state statutes, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals and allows a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species." Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

2.3 LOCAL

Los Angeles County General Plan

Chapter 9 of the Los Angeles County General Plan (Plan) discusses the Conservation and Natural Resource Element of the Plan with the goal of guiding the long-term conservation of natural resources and preservation of available open space areas. Section 3 discusses Biological Resources, which include regional habitat linkages, forests, coastal zones, riparian habitats, streambeds and wetlands, woodlands, chaparral, desert shrubland, alpine habitats, Significant Ecological Areas (SEAs), and Coastal Resource Areas (CRAs). The General Plan works to protect and enhance these resources and ensure that the legacy of the unique biotic diversity is passed on to future generations (LACGP 2022).

Los Angeles County Code Title 22 Planning and Zoning – Renewable Energy Ordinance

Section 22.140.510 of the Los Angeles County Code establishes standards, conditions, and procedures that facilitate renewable energy systems, including utility-scale solar energy facilities such as the Project, in a manner that is intended to protect public health, safety, and welfare, and minimizes significant impacts to the environment. Subsection Section 22.140.510(E)(3) establishes development standards for utility-scale solar energy facilities, including requirements for fencing, height, setbacks, standards for facilities on significant ridgelines, and landscaped buffers. To approve a Conditional Use Permit for a ground-mounted utility-scale solar energy facility, the County must make findings relating to biological resources (in addition to other specified findings), including:

- The project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers;
- The project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork;
- The proposed vegetation sufficiently provides ground cover to the satisfaction of a County biologist; and
- The proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.

(Section 20.140.510(E)(5)). The ordinance also requires compliance with specific conditions of approval that are relevant to protection of biological resources, including measures that address landscaping, soil erosion, hydrology, grading, vegetation removal, and water quality protection. (Section 20.140.510(E)(6)).

Antelope Valley Area Plan

The Antelope Valley Area Plan (Area Plan) is a component of the Los Angeles County General Plan. The purpose of the Area Plan is to achieve the community's shared vision of the future through the development of

specific goals, policies, land use and zoning maps, and other planning instruments. As a component of the Los Angeles County General Plan, the Antelope Valley Area Plan refines the countywide goals and policies in the General Plan by addressing specific issues relevant to the Antelope Valley, such as community maintenance and appearance, and provides more specific guidance on elements already found in the General Plan. The General Plan provides guidance on all issues not covered in the Area Plan. Through the planning and visioning process, the County identified issues of Valley wide significance that, it determined, were best addressed in a comprehensive and coordinated manner. In anticipation of future growth, the planning effort focused on ways to manage this growth and addressed the need for balance on the following issues:

1. Preservation and enhancement of each unique town's rural character, allowing for continued growth and development without compromising the rural lifestyle;

2. Preservation of open space around existing towns, in order to preserve hillside areas and significant ridgelines, conserve biological resources, provide opportunities for recreation, and make more efficient use of existing infrastructure in the core areas;

3. Planning for integrated circulation systems, including bikeways, walkways, and multi-purpose trails;

4. Conservation of significant resources, including agricultural lands, mineral resources, water supply, and scenic areas;

5. Preservation of public health, safety, and welfare, through identification of natural and environmental hazards, including noise, seismic, fire, and airborne emissions, and designation of land uses in an appropriate manner to mitigate these impacts; and

6. Coordination on enhancing public and community services such as law enforcement, fire protection, and parks

The Conservation and Open Space Element provides Goals and Policies to protect the Antelope Valley's environmentally significant undisturbed natural spaces, make use of natural resources, and provide open space areas for recreation and enjoyment. This Element identifies the resources and open spaces which may be developed, and gives guidance as to how sustainable development can be conducted in the future. In addition, this Element identifies areas which ought to be preserved from development, or are unsuitable for development due to hazards.

3 METHODS

3.1 DESKTOP REVIEW

Special-status plant and wildlife species present or potentially present within or adjacent to the Project Area were initially identified through a desktop literature review using the following sources: USFWS Information for Planning and Consultation (IPaC) Trust Resource Report (USFWS 2024a); CDFW California Natural Diversity Database (CNDDB) (CDFW 2024a); the Los Angeles County Sensitive Bird Species List (Part I; Los Angeles Audubon 2009) and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants (CNPS 2024). Additionally, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil

Survey (WSS) was queried to determine soil types that exist within the boundary of the Project Area (USDA 2023), along with the California Essential Habitat Connectivity Project (CDFW 2023b), and the USFWS National Wetland Inventory (USFWS 2023b) Wetland Mapper tool. The CNDDB and CNPS database searches included the 7.5-minute USGS Neenach School quadrangle and eight surrounding quadrangles. The IPaC search included the Project Area and a two-mile buffer surrounding the Project Area. Following a review of these resources, Kleinfelder also reviewed relevant life history information on those species documented as occurring in the region, including habitat type, soils, and elevation preferences.

The Los Angeles County Sensitive Bird Species List (SBSL) has not been updated since 2009; therefore, the current status and distribution of these species is unknown. However, species listed in Part I of the SBSL that may occur in the habitats present in the Project Area were evaluated and included in the analysis by request of the LA County Planning Department. These species are not listed under the federal or state Endangered Species Acts nor are they listed as California species of special concern or fully protected species, rather they are considered species that are locally important in LA County and are protected under the federal MBTA and Section 3503.5 of the CFGC.

3.2 DEFINITION OF SPECIAL-STATUS SPECIES

Special-status plant and wildlife species with state and/or federal protections as described under FESA or CESA in Section 2 above are specifically defined below.

3.2.1 SPECIAL-STATUS WILDLIFE SPECIES

Special-status wildlife species include taxa designated as follows:

- Threatened, endangered, or candidate for listing under the FESA;
- Threatened, endangered, or rare under the CESA;
- CDFW species of special concern or fully protected species;
- Additionally, desert kit fox (*Vulpes macrotis arsipus*) may not be taken at any time under Title 14, Section 460 of the California Code of Regulations.

3.2.2 SPECIAL-STATUS PLANT SPECIES

Special-status plant species include taxa designated as follows:

- Threatened, endangered, or candidate for listing under the FESA;
- Threatened, endangered, or rare under the CESA;
- Species with California Rare Plant Ranks (CRPRs) as described below (CNPS 2024):
  - 1A – Plants presumed extinct in California
  - 1B – Plants considered rare, threatened, or endangered in California and elsewhere
  - 2 – Plants considered rare, threatened, or endangered in California, but more common elsewhere
  - 4 – Plants of limited distribution, a watch list

3.3 FIELD SURVEY

A general biological field survey was performed by Kleinfelder biologist Ryan Hilgris on January 17, 2023, to evaluate botanical and wildlife resources within the Project and buffer area, including habitat suitability for special-status species.

The survey consisted of walking throughout the Project Area to map and characterize vegetation communities and land cover types, collect data on the relative quality of, and potential for existing habitats to support the special-status species identified during the preliminary database and resources review discussed previously, and to identify any other sensitive biological resources present or potentially present within the site. An aerial photograph (Google Earth 2023) and georeferenced mobile map with an overlay of the survey area boundary was utilized to map vegetation communities and record any special-status or sensitive biological resources while in the field. Protocol-level surveys for special-status plant and wildlife species were not conducted during this time. However, any incidental observations of such species were documented during the field survey. The buffer area was scanned with and without binoculars to distinguish any obvious differences between the Project Area and adjacent habitat.

Kleinfelder conducted a constraints-level analysis for potentially jurisdictional wetlands and waters based on current and historic aerial photography signatures and field observations. The analysis was based on criteria provided by the following agencies:

- Waters of the U.S., including wetlands, under the jurisdiction of the ACOE, pursuant to Section 404 of the CWA.
- Wetlands and Waters of the State under the jurisdiction of the Regional Water Quality Control Board, pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act).
- Rivers, streams, or lakes under the jurisdiction of CDFW, pursuant to Section 1602 of the CFGC.

4 RESULTS

4.1 BIOLOGICAL SETTING

The biological setting surrounding the Project Area is primarily undeveloped desert habitat in relatively close proximity to some rural residences and solar development in the vicinity of the Project Area. Results of the field survey are described in detail below.

4.2 EXISTING HABITATS

4.2.1 SOILS

According to the NRCS (USDA 2023), one soil type, Greenfield sandy loam, 2 to 9 percent slopes, has been mapped within the Project Area. Greenfield sandy loam is a well-drained soil found on alluvial fans and terraces, derived from granite.

4.2.2 VEGETATION COMMUNITIES

Using the classifications described in *A Manual of California Vegetation* (MCV; Sawyer Keeler-Wolf 2009), two vegetation communities, rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) and inactive agriculture/ruderal, were mapped during the field survey (Figure 3).

***Ericameria nauseosa* Shrubland Alliance (rubber rabbitbrush scrub) (15.71 acres).** In intact natural stands of this vegetation type, rubber rabbitbrush is dominant or co-dominant in this vegetation community and may coexist with big sagebrush (*Artemisia tridentata*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), *Ephedra* spp., California buckwheat (*Eriogonum fasciculatum*), California broomsage (*Lepidospartum squamatum*) and bitterbrush (*Purshia tridentata*). In the Project Area, rubber rabbitbrush was the dominant shrub and appeared dense in most of the community as a whole, while patchy on the margins where it seemed to have recently recolonized portions of the site after agricultural use was discontinued. Other characteristic native shrub species were lacking in this area (Figure 3).

Inactive Agriculture/Ruderal (no MCV classification) (15.29 acres). The Project Area was in active agriculture until approximately 2011 or 2012 and appears to have remained fallow since then. As such, weedy species like *Erodium* sp., *Plantago* sp. and mustard (*Brassica* sp.) have colonized the site (Figure 3, Figure 4). Some annual grasses were also observed during the field survey, although they were not identifiable due to the time of year the survey was performed. Several small mammal burrows were scattered throughout this vegetation community; however, most were 2-3 inches in diameter and therefore suggest use by rodents such as pocket gophers (*Thomomys* sp.). Only a handful of burrows were suitably sized to be associated with California ground squirrels, although no ground squirrels were observed during the field survey (*Otospermophilus beecheyi*).

A row of juniper trees was planted along the western boundary of the site sometime between the mid-1980's and mid-1990's (Google Earth 2023). Chapter 9 of the LA County General Plan describes juniper woodland as an important habitat feature that supports multiple wildlife species in a concentrated area (LACGP 2022). However, this row of trees does not fall into the category of juniper woodland as described in the Plan, as it is not a natural aggregation of trees and does not therefore provide the benefits that a true woodland would. This is due to the linear configuration of the trees directly adjacent to a road and the fact that approximately half of the trees were dead at the time the field survey was performed. This row of trees was likely planted to serve as a wind screen for agricultural uses on the subject parcel, and at present provides little habitat value to wildlife. In addition, the Project will be constructed east of the row of junipers, and likely only one to three of the planted trees would need to be removed to support construction of the access road into the Project Area.

Plant species identified during the field survey are included in Table 1 below.

Table 1. Plant Species Observed During the Field Survey

Scientific Name	Common Name
Brassica tournefortii	Sahara mustard
Ericameria nauseosa	rubber rabbitbrush
Erodium sp.	stork's bill
Juniperus sp.	juniper
Plantago sp.	plantain
Pinus halepensis	Aleppo pine

4.3 SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Special-status plant and wildlife species are discussed below in terms of CEQA thresholds of significance. A threshold of significance for a given environmental impact defines the level of effect above which the Lead Agency will normally consider impacts to be significant, and below which it will normally consider impacts to be less than significant. Lead Agencies are responsible for establishing the thresholds of significance for all documents they prepare. They can rely on several sources, including: Appendix G of the State CEQA Guidelines; CEQA's mandatory findings of significance (State CEQA Guidelines § 15065); thresholds established by regulatory agencies; thresholds provided in General Plans or other local planning documents; or thresholds established by other agencies (CEQA 2020).

A list of special-status wildlife species with potential to occur in the vicinity of the Project Area is included in Appendix A, and a list of special-status plant species with potential to occur in the vicinity of the Project Area is included in Appendix B. Together, Appendix A and Appendix B, and specifically the column evaluating the "Potential to Occur within the Project Area" can be used by the Lead Agency to assess whether the construction and operation of the proposed project may have a potentially significant impact on biological resources. Definitions regarding potential for species occurrence for this assessment are as follows:

- Not expected to occur – Habitat within and adjacent to the Project Area is lacking for the species' life history requirements (foraging, breeding, cover, range, elevation, hydrology, vegetation community, site history, and/or disturbance regime). There are no documented occurrences of the species in the larger vicinity of the Project Area.
- Low – Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of poor quality. Because of this, the species is highly unlikely to be found within the Project Area. Any documented occurrences of the species are likely further than possible for the species to disperse to the site, the date of the occurrence is several decades old, or the vicinity of the Project Area has been developed in a manner that likely precludes the species from presently occurring.
- Moderate – Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. There are recently documented occurrences in the near vicinity of the Project Area; therefore, the species has a moderate probability of utilizing the site.
- High – All of the habitat components meeting the species requirements are present, and/or most of the habitat on or adjacent to the Project Area is highly suitable. There are documented occurrences of the species on or immediately adjacent to the Project Area; therefore, the species has a high probability of utilizing the Project Area.
- Present – Species was observed within the Project Area during field surveys or has been recorded (i.e., CNDDB, or other source) within the Project Area recently.

Based on these definitions, there would be no impact or less than significant impacts to species that are not expected to occur or that have a low potential to occur in the Project Area. As such, these species are removed from further consideration and recommendations to avoid impacts to these species are not included in Section 5 of this document. Species with a moderate or greater potential to occur are discussed in Sections 4.3.1 and 4.3.2 below, and recommendations to avoid and minimize impacts to these species are provided in Section 5 of this document.

4.3.1 SPECIAL-STATUS WILDLIFE SPECIES

Results of the CNDDB and IPaC searches returned 25 special-status wildlife species known to occur within the two-mile/nine quad search radius of the Project area (CDFW 2024a; USFWS 2024a). Of these, four have a moderate potential to occur. The remaining 21 special-status wildlife species are not expected to occur or have a low potential to occur within the Project area due to a lack of suitable habitat, or the site is outside of the species' known range. As such, these 21 species were removed from further consideration. The four species with a moderate potential to occur are described in more detail below.

Burrowing owl utilizes abandoned ground squirrel and sometimes mesocarnivore burrows in open habitats, grasslands, and disturbed areas with short, sparse vegetation, typically on levees, mounds, or areas where there are unobstructed views of possible predators such as raptors or foxes. Prey items include insects, small mammals, reptiles and amphibians. There is suitable habitat for this species within the inactive/ruderal portions of the Project Area, as the lower density of vegetation allows for unobstructed views of possible predators, and the few ground squirrel burrows observed on the site may support burrowing owl; however, this species is not likely to occur in the dense rabbitbrush scrub on the site as these areas would obstruct views of possible predators. There is a cluster of three occurrences of burrowing owl approximately 1.5 miles northeast of the Project Area from 2010; however, no burrowing owls or sign of burrowing owl (e.g., whitewash, feathers, pellets) were observed on the site during the field survey. Protocol surveys were not completed during the general biological field survey.

Loggerhead shrike is a year-round resident in most areas of California that contain grasslands, open areas, orchards, and areas with scattered trees. It feeds on small vertebrates and invertebrates and impales prey on thorns or barbed wire. There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site. LA County noted an anecdotal observation of this species during a site visit in July 2024.

Mountain plover occurs in flat open plains, not mountains. Of all the shorebirds, mountain plover is the most disconnected from the shore, generally living miles from water in areas of very short grass, including semi-arid plains, grasslands, and plateaus. In some areas, it nests mainly on bare ground found in large prairie-dog towns. Winter habitats include desert flats and plowed fields. There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site.

Swainson's hawk spends the breeding season in the Central Valley of California and is commonly found in agricultural areas or open grasslands containing solitary trees for nesting. Its diet consists of insects, small mammals and reptiles. There is suitable foraging habitat for this species within and adjacent to the Project Area; however, suitable nest trees for this species are sparse in the vicinity of the Project area. There is one recently documented (2020) occurrence of this species approximately two miles northeast of the site; however, the majority of documented occurrences of this species are clustered around the valley surrounding Lancaster and Palmdale 20 miles east of the Project Area. There are no documented occurrences of this species within 20 miles north, south, or west of the Project Area.

LA County Special Bird Species List

An additional seven bird species listed on Part I of the LA County SBSL have a moderate potential to occur, including ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides)*, prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), turkey vulture (*Cathartes aura*), and

western meadowlark (*Sturnella neglecta*). These species are not listed under the federal or state Endangered Species Acts nor are they listed as California species of special concern or fully protected species, rather they are protected under the federal MBTA and Section 3503.5 of the CFGC.

Species With a Low Potential to Occur

There are two species with a low potential to occur on the site that the County specifically asked to be addressed in this assessment. There is low-quality habitat for American badger (*Taxidea taxus*), a California species of special concern, and desert kit fox in the Project Area. No burrows of suitable size to support these species were observed during the field survey. There are only two documented occurrences of American badger within eight miles of the Project Area; one has no date or owner information, and the other is from 1906. Occurrence records for desert kit fox are not kept by the CNDDB or IPaC, as this species is not listed under FESA or CESA; however, desert kit fox is protected by Title 14, Section 460 of the California Code of Regulations (furbearing mammals); therefore, preconstruction surveys are included in the recommendations section of this document to ensure compliance with the Code.

A list of special-status wildlife species with potential to occur in the vicinity of the Project Area is included in Appendix A.

4.3.2 Special-Status Plant Species

Results of the IPaC, CNDDB, and CNPS searches identified 44 special-status plant species known to occur within the two-mile/nine quad search radius of the Project area (CNPS 2023). None of these 44 species are expected to occur within the Project Area due to a lack of suitable habitat, history of agricultural site disturbance, or the site is outside of the species' known range. As such, these 44 species were removed from further consideration and are not discussed further in this document.

A list of plant species with potential to occur in the vicinity of the Project Area is included in Appendix B.

4.4 Critical Habitat

Critical habitat is a term defined and used in the federal Endangered Species Act to specify geographic areas that contain features essential to the conservation of an endangered or threatened species, and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery.

The Project Area is not within critical habitat limits for any federally listed wildlife or plant species; however, critical habitat for California condor (*Gymnogyps californianus*) has been mapped approximately eleven miles north of the Project Area.

4.5 Potentially Jurisdictional Aquatic Resources

The NWI depicts an intermittent riverine feature that is mapped outside of the northwest corner of the Project Area; however, no wetland indicators (e.g., visible OHWM, bed and bank, soil surface cracks, hydrology, or hydrophytic vegetation) were observed in the vicinity of this feature or in any other part of the Project Area during the field survey,

which was performed during the wet season. This feature is likely no longer present due to modification of the landscape during the last several decades of agricultural practices.

4.6 WILDLIFE CORRIDORS AND HABITAT LINKAGES

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping-stones for wildlife dispersal.

The Project Area is not recognized as an important wildlife corridor by any regional or state agency or jurisdiction and is not considered critical to the ecological functioning of adjoining open space areas (CDFW 2023b). It likely supports local movement patterns and provides food and cover resources for common wildlife species. Temporary effects due to noise and increased human activity during project activities would not interfere with these local movement patterns over time or affect the ability of these species to forage or reproduce.

The eight-foot perimeter fence would be installed at the onset of construction to establish the outer boundaries of the Project Site. Site preparation would consist of clearing the existing vegetation in those areas on the Project Site where construction would be undertaken, grading, and establishing temporary staging area (including stockpile and laydown areas) as necessary. Selected vegetation would be removed to accommodate the construction of the array and its appurtenances, as well as to prevent shading on the array during operation. Any vegetation taller than two feet (e.g., the height of the solar modules above grade) or expected to exceed two feet in height would be removed. Grass and groundcover may remain between rows and under the solar modules. All cleared vegetation would be chipped or spread on-site or disposed of responsibly.

4.7 COMMON WILDLIFE SPECIES

Several common wildlife species or their sign were observed during the field survey, including white-crowned sparrow (*Zonotrichia leucophrys*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mountain bluebird (*Sialia currucoides*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*). Small mammal burrows were present throughout the site. Common wildlife species adapted to life in proximity to human activity like coyotes (*Canis latrans*) are likely to move through the Project Area on a regular basis to find food and cover. Several common native and non-native bird species are likely to use the Project Area and adjacent habitat for nesting and/or foraging (Figure 4).

5 RECOMMENDATIONS

This section addresses potential constraints to approval of the proposed Project due to the presence of sensitive biological resources and potential impacts to those resources that could result from Project activities. Recommendations to address potential biological resource constraints are described below.

BIO-1: Preconstruction Nesting Bird Survey. All native birds in California are protected by the federal MBTA, and Section 3503.5 of the CFGC specifically protects raptors. Ground disturbance**,** noise, or removal of vegetation that would result in destruction of active bird nests or disruption of breeding/nesting activity could be a violation of the MBTA and the CFGC as well as a significant impact under CEQA.

Kleinfelder recommends a nesting bird survey be performed by a qualified biologist approved by LA County no earlier than two weeks prior to any construction during the nesting season (February 1 – August 31) to determine if any native birds are nesting on or near the site (including a 250-foot buffer for raptors and a 0.25-mile buffer for SWHA, where accessible). If any active nests are observed during surveys, a suitable avoidance buffer from the nests should be determined by the qualified biologist based on species, location, and extent and type of planned construction activity. These nests would be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. Kleinfelder also recommends removing any suitable nesting habitat (i.e., trees and vegetation) outside of the bird breeding season to avoid impacts to nesting birds. A memo will be prepared at the conclusion of surveys to be submitted to LA County. The memo will include graphics and figures as necessary to support the results of the survey.

BIO-2: Trash Receptacles. Impacts to special-status species due to increased presence of predators associated with construction activities could be considered a significant impact in the context of CEQA. All trash and waste items generated by construction or crew activities should be properly contained in a covered and locked trash receptacle and/or removed from the Project site daily. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species

BIO-3: Common and Special-Status Wildlife Awareness. All Project personnel will visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during construction, all excavated holes, ditches, or trenches greater than six (6) inches deep will be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps will be placed in excavations. After opening and before filling, such holes, ditches, and trenches will be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) will not contain monofilament netting.

All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire will be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.

BIO-4: Worker Environmental Awareness Training. A qualified biologist will conduct an environmental education program, approved by LA County, for all persons working on the Project prior to the onset of construction. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered will be included in the training. Special-status species, including legal protection, penalties for violations, and Project-specific protective measures will also be discussed. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training will be maintained at the worksite with the Project supervisor, and a handout containing this information will be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective measures.

BIO-5: Desert Kit Fox and American Badger. During protocol-level burrowing owl surveys and within 72 hours prior to the onset of construction, a survey will be performed by a qualified biologist to determine the presence of potential desert kit fox and American badger burrows. If any suitable burrows are detected, remote camera stations will be set up for a period of three nights to determine occupancy. If the burrows are occupied by American badger or desert kit fox, avoidance buffers of 50 feet would be implemented until the burrows are no longer occupied, as determined by the qualified biologist. If no suitable burrows are detected, or no American badgers or desert kit foxes are detected during remote camera monitoring, no further mitigation would be required.

BIO 6: Burrowing Owl Avoidance. A qualified biologist should conduct surveys following the California Burrowing Owl Consortium's (CBOC) *Burrowing Owl Survey Protocol and Mitigation Guidelines* (CBOC 1993) and the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) during the survey season immediately prior to construction to assess the presence of burrowing owl on or adjacent to the site. Should an active burrowing owl nest be detected, no-disturbance buffers should be implemented prior to and during any ground-disturbing activities, as outlined in the *"Staff Report on Burrowing Owl Mitigation"* (CDFG 2012). Impacts to occupied nest burrows should be avoided in accordance with the following table unless a qualified biologist verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. In that case, construction activities would be allowed to continue upon verification that owls are not utilizing the burrow at the time of ground disturbance.

Location	Time of Year	Level of Disturbance		
		Low	Medium	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

6 REFERENCES CITED

16 U.S.C. 703–712. Migratory Bird Treaty Act, as amended.

California Department of Fish and Wildlife (CDFW). 2024a. California Natural Diversity Database (CNDDB). Rarefind, Version 5 (Commercial Subscription). 2023. Accessed August 2024. Sacramento, California. https://map.dfg.ca.gov/rarefind/Login.aspx?ReturnUrl=%2frarefind%2fview%2fRareFind.aspx.

California Department of Fish and Wildlife (CDFW). 2023b. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. California Department of Fish and Wildlife Biogeographic Information and Observation System (BIOS 5) Data Viewer User Guide, Version 5 (Commercial Subscription). Accessed January 2023. Sacramento, California. Website https:// https://apps.wildlife.ca.gov/bios/?bookmark=648

California Native Plant Society (CNPS), Rare Plant Program. 2024. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [Accessed August 2024].

Google Earth V 7.3.6.9345 (64-bit). 2023. Grass Valley, California. 34°46'48.87" N and 118°32'04.69" W. Eye alt 5,200 feet. Accessed January 2023. Digital Globe 2023. http://www.earth.google.com.

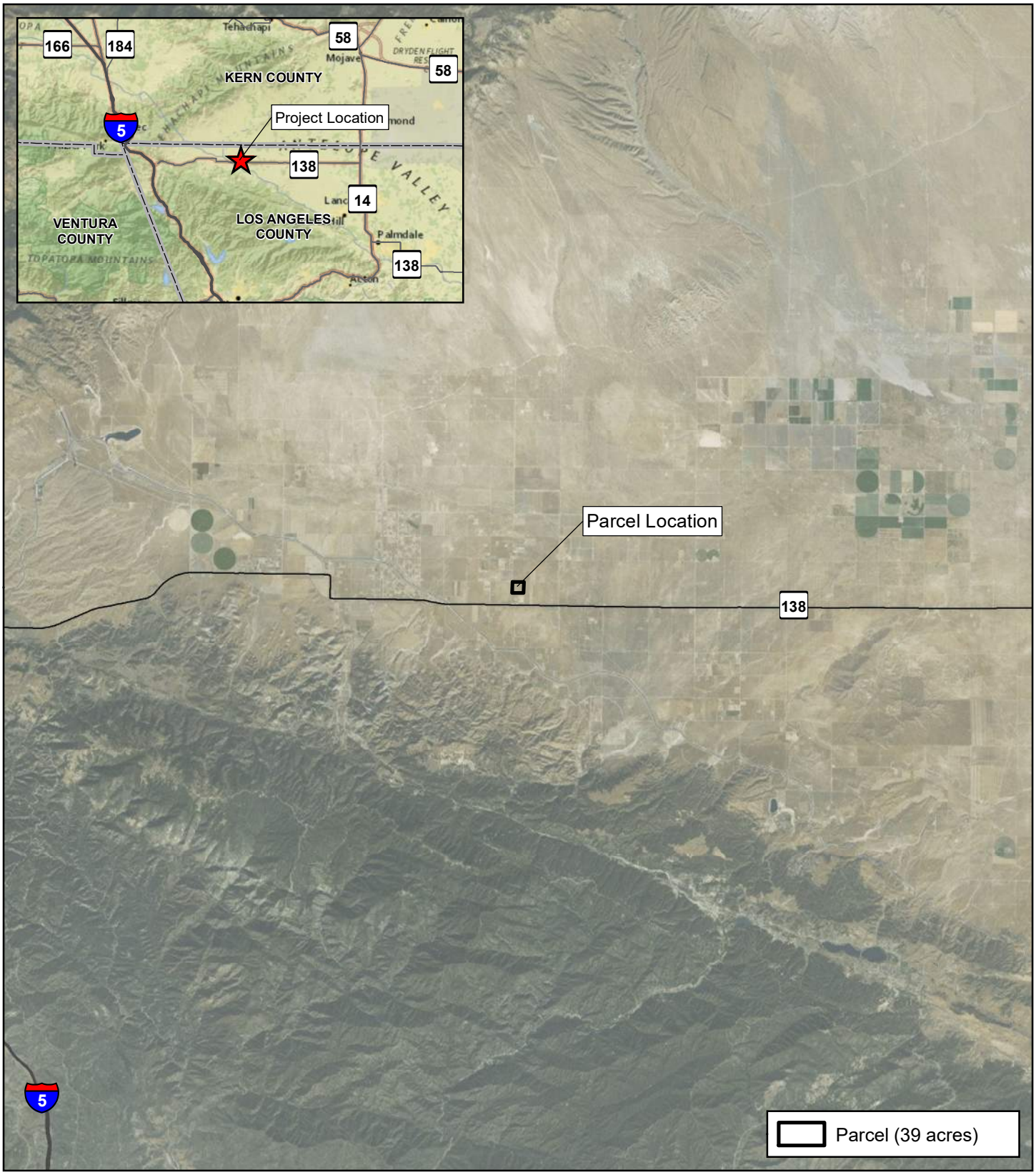
Los Angeles County General Plan (LACGP). 2022 (2035 update). Los Angeles County Planning Department. Updated July 14, 2022.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*, Second Edition. California Native Plant Society, Sacramento. 1300 pp.

U.S. Department of Agriculture (USDA). 2023. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed January 2023. http://websoilsurvey.sc.egov.usda.gov/ App/HomePage.htm.

U.S. Fish and Wildlife Service (USFWS). 2023a. Information for Planning and Consultation (IPaC). Accessed August 2024. https://ecos.fws.gov/ipac/.

U.S. Fish and Wildlife Service (USFWS). 2023b. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Accessed January 2023.





0 1.5 3 Miles

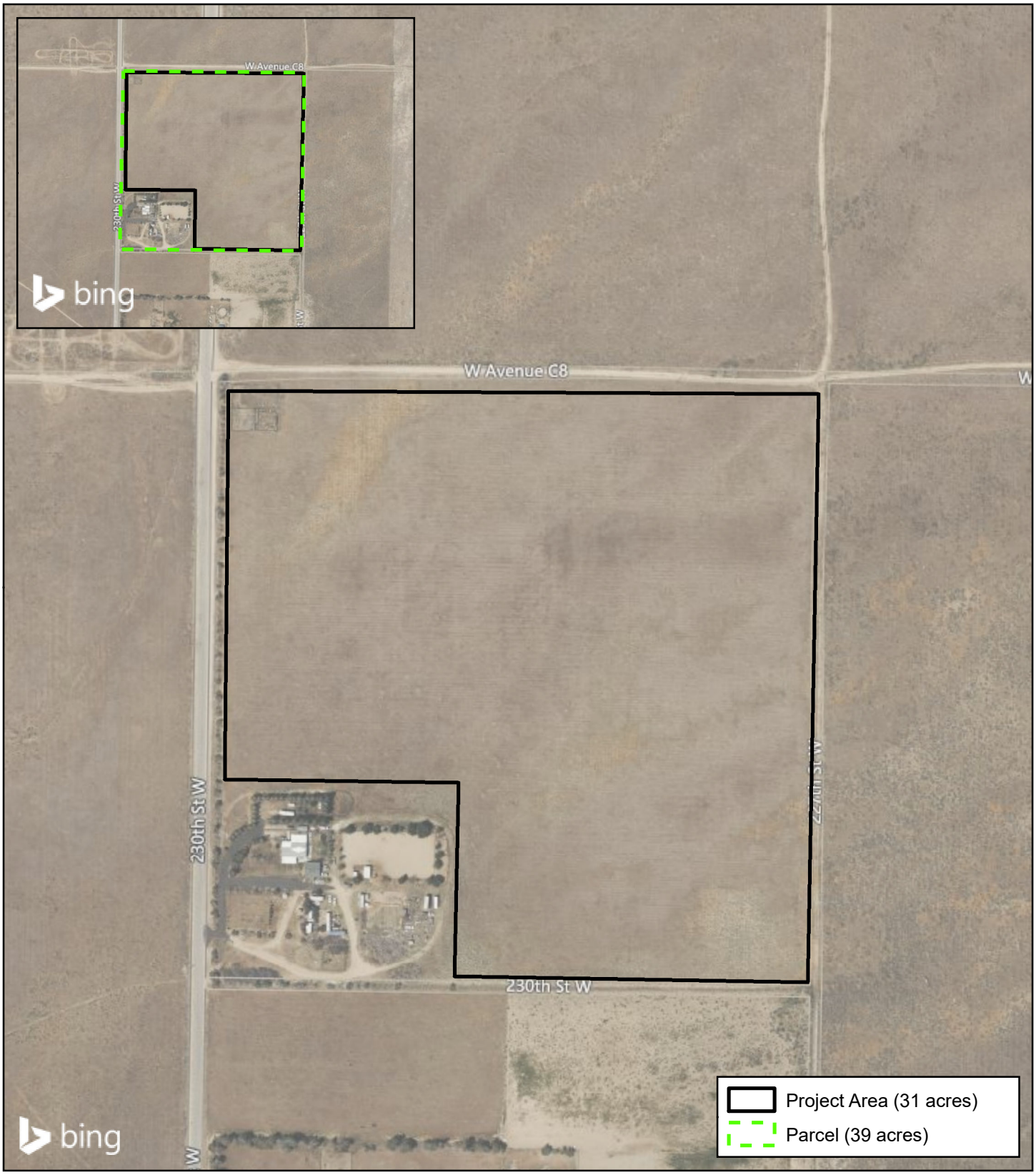
0 2.5 5 Kilometers

N

Scale 1:190,080
1 in = 3 miles

Figure 1. Regional Vicinity
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.





Source: Bing Maps

0 150 300 Feet

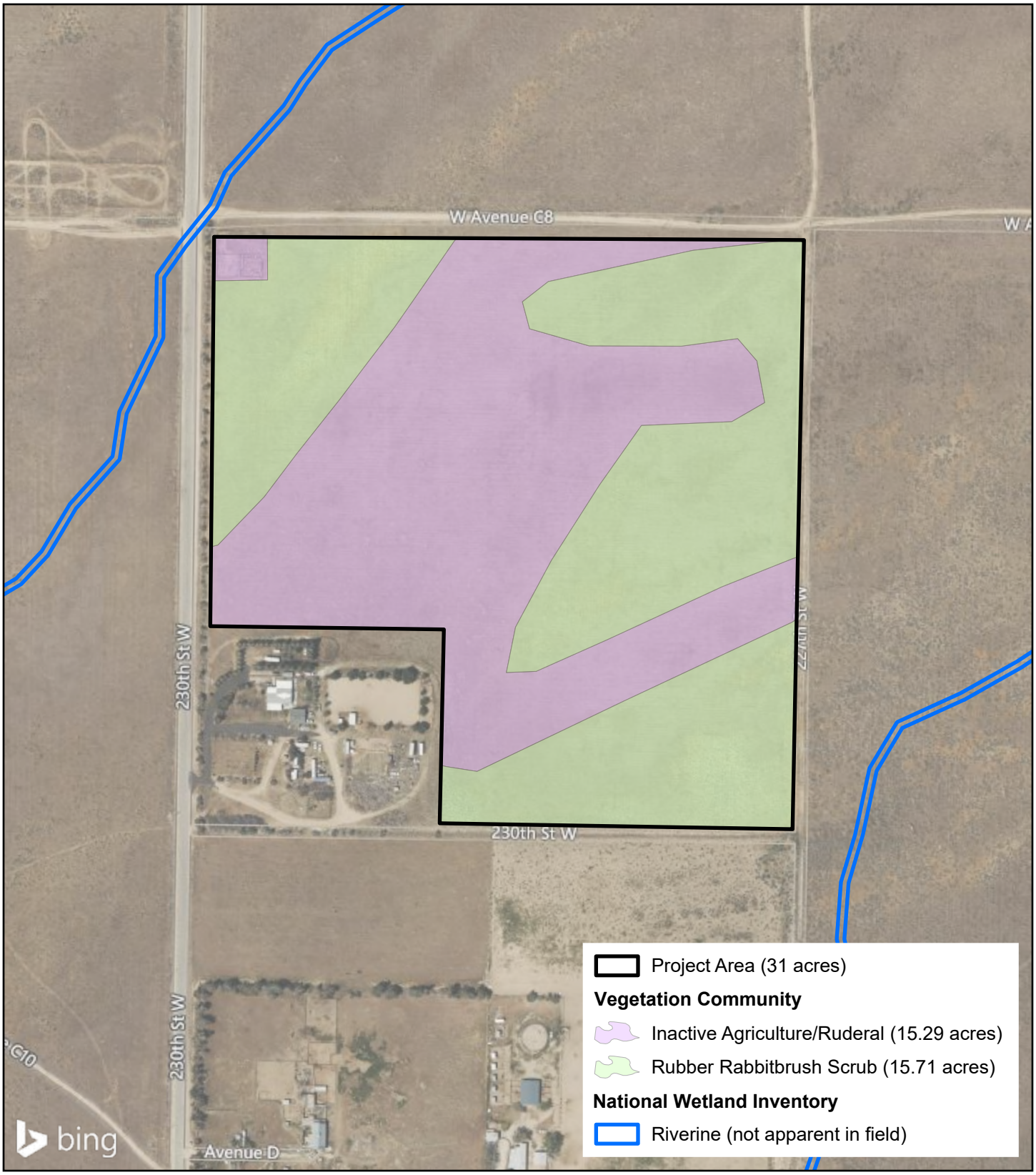
0 45 90 Meters

N

Scale 1:3,600
1 in = 300 feet

Figure 2. Project Area
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.





Source: Bing Maps

0 150 300 Feet

0 45 90 Meters

N

Scale 1:3,600
1 in = 300 feet

Figure 3. Vegetation Communities and NWI Mapped Features
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.



Photo 1: Example of California ground squirrel burrows in the project area.



Photo 2: Looking north across the project area from the residence in the southwest corner of the parcel.



Photo 3: Looking northwest through the project area from the southeast corner.



Figure 4. Photos Page 1 of 3
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

Created By: jkiatt Document Path: G:\Renewable_Properties\2023\4230_RCPA_230th_street\Figure4_1_230thStreet_Photos.mxd



Photo 4: Looking south along the western boundary of the project area from the northwestern corner.



Photo 5: Looking south through the center of the site from the northern boundary.



Photo 6: Looking southeast at the project area from 230th Street.



Figure 4. Photos Page 2 of 3
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

Created By: jkiatt Document Path: G:\Renewable_Properties\2023\4230_RCPA_230th_street\Figure4_2_230thStreet_Photos.mxd



Photo 7: Looking southwest through the project area from the northeast corner.



Photo 8: Looking west through the center of the site from the eastern boundary.

Created By: JHiatt Document Path: C:\Renewable_Properties\2023\4230_RCPA_230th_street\Figure4_3_230thStreet_Photos.mxd



Figure 4. Photos Page 3 of 3
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
Invertebrates				
monarch – California overwintering population	*Danaus plexippus* (pop. 1)	Candidate Threatened/None	Monarch adults make massive, multi-generation migrations from August-October, flying south thousands of miles to hibernate along the California coast and in central Mexico. Monarchs stop to feed on flower nectar and to roost together at night. During warm winter days, the butterflies may take moisture and flower nectar. Most mating happens before they journey north in the spring, when females lay single eggs along the way under host plant leaves (*Asclepias* sp.); caterpillars eat flowers and leaves. Overwintering sites along the California coast are important for conservation of this species.	**Low potential to occur.** Suitable host plants for this species were not observed within or adjacent to the Project Area, and there are no known winter roosts in the vicinity of the Project Area.
crotch bumblebee	*Bombus crotchii*	None/Candidate Endangered	Crotch bumble bee was historically common throughout much of the southern two-thirds of California, but now appears to be absent from most of the state. Most bumble bees are primitively eusocial insects that live in colonies composed of a queen, workers, and, near the end of the season, reproductive members of the colony (new queens, or gynes, and males). Habitat requirements include availability of suitable colony nesting sites, floral resources to obtain nectar and pollen throughout the duration of the colony period (spring, summer and fall), and suitable overwintering sites for queens.	**Low potential to occur.** Low quality habitat for this species is present within and adjacent to the Project Area.
Amphibians and Reptiles				
California legless lizard	*Anniella pulchra*	None/SSC	The California legless lizard is common in the Coast Ranges from Contra Costa County south to the Mexican border, but only occurs sporadically throughout the rest of its range, which includes the San Joaquin Valley to the west slope of the southern Sierra, the Tehachapi Mountains west of the desert and in the mountains of southern California. California legless lizard is a burrowing species associated with sandy or loose loamy soils and it lives mostly underground. The California legless lizard also needs moisture to survive, so it favors moist, warm, loose soil with some plant cover.	**Low potential to occur.** Although there is some low-quality habitat for this species within and adjacent to the Project Area, the nearest documented occurrence is over 12 miles east of the site.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
coast horned lizard	*Phrynosoma blainvillii*	None/SSC	Coast horned lizard inhabits open areas with sandy soils and low vegetation in valleys, foothills and semiarid mountains. It is found in grasslands, coniferous forests, woodlands, and chaparral with open areas and patches of loose soil, often in lowlands along sandy washes with scattered shrubs and along dirt roads. Commonly observed near ant hills feeding on ants.	**Low potential to occur.** Although there is some low-quality habitat for this species within and adjacent to the Project Area, the nearest current documented occurrence is over 10 miles southeast of the site.
coastal whiptail	*Aspidoscelis tigris stejnegeri*	None/SSC	This subspecies is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. Coastal whiptail occurs in a variety of ecosystems, primarily in hot and dry open areas with sparse foliage, including chaparral, woodland, and riparian areas.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
desert tortoise	*Gopherus agassizii*	Threatened/ Threatened	Desert tortoise occurs in arid and semi-arid habitats in the Mojave and Sonoran Deserts, including sandy or gravelly locations along riverbanks, washes, sandy dunes, canyon bottoms, desert oases, rocky hillsides, creosote flats and hillsides. It spends most of its life in underground burrows dug to escape the desert heat.	**Low potential to occur.** Although some low-quality habitat for this species is present within and adjacent to the Project Area, the nearest documented occurrence of this species is approximately 50 miles northeast of the site, where USFWS critical habitat has been mapped.
foothill yellow-legged frog – south coast DPS	*Rana boylii* pop.6	None/SSC	Foothill yellow-legged frog frequently inhabits streams and rivers with rocky substrate and open, sunny banks, in forest, chaparral, and woodland habitat. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
southern rubber boa	*Charina umbratica*	None/Threatened	Southern rubber boa inhabits oak-conifer and mixed-conifer forests at elevations between roughly 5,000 to 8,200 feet where rocks and logs or other debris provide shelter. Often found under logs, boards, and other debris, and sometimes on roads at dusk.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Tehachapi slender salamander	*Batrachoseps stebbinsi*	None/Threatened	The Tehachapi slender salamander inhabits north-facing moist canyons and ravines in oak and mixed woodlands in arid to semi-arid locations. Found under rocks, logs, bark, and other debris in moist areas, especially in areas with a lot of leaf-litter, often near talus slopes.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
two-striped gartersnake	*Thamnophis hammondii*	None/SSC	The two-striped gartersnake is among the most aquatic of the gartersnakes. It is generally found near water sources, including pools, creeks, cattle tanks, and other aquatic features, often in rocky areas. This species is commonly associated with oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
western pond turtle	*Emys marmorata*	None/SSC	Western pond turtles use both aquatic and terrestrial habitats. They are found in permanent or nearly permanent rivers, lakes, streams, ponds, wetlands, creeks, reservoirs, agricultural ditches, estuaries, and brackish waters. Western pond turtles prefer areas that provide cover from predators, such as vegetation and algae, as well as basking sites for thermoregulation. Adults tend to favor deeper, slow-moving water, whereas hatchlings search for slow and shallow water that is slightly warmer. Terrestrial habitats are used for wintering and egg-laying and usually consist of burrows in leaves and soil. Western pond turtles are known to nest up to 325 feet from suitable aquatic habitat. They are rarely found at elevations above 4,950 feet.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Birds				
bald eagle	*Haliaeetus leucocephalus*	Delisted, BGEPA/ Endangered, FP	Bald eagles live near large bodies of open water such as lakes, marshes, estuaries, seacoasts and rivers where fish are abundant. They usually nest within one mile of water in tall trees with open branchwork bordering lakes or large rivers.	**Not expected to occur.** No suitable nesting or foraging habitat is present for this species within several miles of the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
burrowing owl	*Athene cunicularia*	None/SSC	Burrowing owl utilizes abandoned ground squirrel burrows in open habitats, grasslands, and disturbed areas, typically on levees, mounds or areas where there are unobstructed views of possible predators such as raptors or foxes. Prey items include insects, small mammals, reptiles and amphibians.	**Moderate potential to occur.** There is suitable habitat for this species within the inactive/ruderal portions of the Project Area, and the few ground squirrel burrows observed on the site may support burrowing owl; however, this species is not likely to occur in the dense rabbitbrush scrub on the site as these areas would obstruct views of possible predators. There is a cluster of three occurrences of burrowing owl approximately 1.5 miles northeast of the Project Area from 2010; however, no burrowing owls or sign of burrowing owl (e.g., whitewash, feathers, pellets) were observed on the site during the field survey.
California condor	*Gymnogyps californianus*	Endangered/ Endangered, FP	California condor nests in rock formations, deep caves, and occasionally in cavities in giant sequoia trees (*Sequoiadendron giganteus*). It forages in relatively open habitats where large animal carcasses can be detected.	**Low potential to occur.** Although this species could potentially forage in the Project Area, the nearest suitable nesting habitat is approximately five miles north and south of the site.
ferruginous hawk	*Buteo regalis*	None/None, LA County Sensitive Bird Species List	Common in the winter in California, ferruginous hawk inhabits plains and prairies. Found during all seasons in very open and dry country, it can be found in dry grassland, sagebrush plains, saltbush and greasewood flats, rangeland, desert. In winter, it can also be found in in agricultural country, including over plowed fields.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.
golden eagle	*Aquila chrysaetos*	BGEPA/FP	Golden eagle is found in open country, including mountains, foothills, and plains. In the west, they are found over prairie, rangeland, or desert. They are very wide-ranging in winter, and more restricted to areas with good nest sites in summer, which consist of cliff ledges or large trees.	**Low potential to occur.** Although this species could potentially forage in the Project Area, the nearest suitable nesting habitat is approximately five miles north and south of the site, and the nearest documented nesting occurrence is approximately 15 miles west of the site.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
greater roadrunner	*Geococcyx californianus*	None/None, LA County Sensitive Bird Species List	Greater roadrunner inhabits deserts and open country with scattered brush. It is most common in the Sonoran Desert and in areas with a mix of open ground and dense low cover. At the limits of its range, it is found in dry grassland, forest edges, and limestone hills with scattered juniper. This species walks and runs on the ground, flying only when necessary.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.
Le Conte's thrasher	*Toxostoma lecontei*	None/SSC	Le Conte's thrasher inhabits low, sandy, open deserts that are home to few other bird species. Over most of their range, saltbush, shadscale, cholla cactus, creosote, yucca, mesquite, and ocotillo are commonly found, but they are usually sparsely distributed in these mostly flat or rolling landscapes. Le Conte's thrashers generally do not inhabit steep-sided canyons, preferring small arroyos, open flats, or dunes. Rainfall and flowing streams are rare in these deserts, and air temperatures are among the highest recorded on earth.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
loggerhead shrike	*Lanius ludovicianus*	None/SSC	Loggerhead shrike is a year-round resident in most areas of California that contain grasslands, open areas, orchards, and areas with scattered trees. It feeds on small vertebrates and invertebrates and impales prey on thorns or barbed wire.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site. LA County noted an anecdotal observation of this species during a site visit in July 2024.
long-eared owl (wintering)	*Asio otus*	None/SSC, LA County Sensitive Bird Species List	Long-eared owl resides in woodlands and conifer groves that contain dense trees for nesting and roosting, and open country for hunting. It generally avoids unbroken forest. It does not build nests, instead it uses abandoned nests built by other birds, such as crows, ravens, magpies, and various hawk species. It forages over fields or in open woods.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
mountain bluebird	*Sialia currucoides*	None/None, LA County Sensitive Bird Species List	Mountain bluebird is found in open country with some trees; in winter, it is also found in treeless terrain. Breeding habitat is not always restricted to mountains; it is also found in lowland prairies and sagebrush flats, as well as alpine zones above the treeline. In winter, it is most common in pinyon-juniper woods, but also in open grassland, desert, farmland, and barren plowed fields.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
mountain plover	*Charadrius montanus*	None/SSC	Mountain plover occurs in flat open plains, not mountains. Of all of the shorebirds, mountain plover is the most disconnected from the shore, generally living miles from water in areas of very short grass, including semi-arid plains, grasslands, and plateaus. In some areas, it nests mainly on bare ground found in large prairie-dog towns. Winter habitats include desert flats and plowed fields.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site.
prairie falcon (breeding)	*Falco mexicanus*	None/None, LA County Sensitive Bird Species List	Prairie falcon inhabits open hills, plains, prairies, and deserts. It is typically found in fairly dry, open country, including grassland and desert. It can also be found in open country above the treeline in the high mountains. In winter, it is often found in farmland and around lakes and reservoirs, and may regularly winter in some western cities. It avoids forested country.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.
purple martin	*Progne subis*	None/SSC	Purple martin occurs in towns, farms, and semi-open country near water. In the west it also inhabits mountain forests and saguaro desert. It nests in cavities of trees, usually in colonies, and forages for flying insects.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
short-eared owl	*Asio flammeus*	None/None, LA County Sensitive Bird Species List	The short-eared owl lives in open terrain, such as prairies and marshes. It is often active during daylight, especially in the evening. It nests in tundra, inland and coastal prairies, extensive marshes, and farmland. In the winter, it is also found in stubble fields, small meadows, coastal dunes, and shrubby areas.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
Swainson's hawk	*Buteo swainsoni*	None/Threatened	Swainson's hawk spends the breeding season in the Central Valley of California and is commonly found in agricultural areas or open grasslands containing solitary trees for nesting. Its diet consists of insects, small mammals and reptiles.	**Moderate potential to occur.** There is suitable foraging habitat for this species within and adjacent to the Project Area; however, suitable nest trees for this species are sparse in the vicinity of the Project area. There is one recently documented (2020) occurrence of this species approximately two miles northeast of the site; however, the majority of documented occurrences of this species are clustered around the valley surrounding Lancaster and Palmdale 20 miles east of the Project Area. There are no documented occurrences of this species within 20 miles north, south, or west of the Project Area.
tricolored blackbird	*Agelaius tricolor*	None/Threatened, SSC	Tricolored blackbird is a colonial species found almost exclusively in California. It utilizes wetlands, marshes and agricultural grain fields for foraging and nesting. The tricolored blackbird population has declined significantly in recent years due to habitat loss and harvest of grain fields before young have fledged.	**Not expected to occur.** Although there are historical documented occurrences less than 3 miles from the Project Area at Holiday Lake, there have not been any documented occurrences at the lake since 2016, and suitable habitat for this species is not present within or adjacent to the Project Area.
turkey vulture (breeding)	*Cathartes aura*	None/None, LA County Sensitive Bird Species List	Turkey vultures are widespread and common in California over open country, woods, deserts, and foothills. They are most common over open or semi-open country, especially within a few miles of rocky or wooded areas providing secure nesting sites and carrion for foraging. It generally avoids densely forested regions.	**Moderate potential to occur.** There is suitable foraging habitat for this species within and adjacent to the Project Area.
western meadowlark	*Sturnella neglecta*	None/None, LA County Sensitive Bird Species List	Western meadowlark is a common species in California that inhabits grasslands, cultivated fields and pastures, meadows, and prairies. It mostly breeds in natural grasslands, abandoned weedy fields, rangelands, and sometimes on cultivated land. In winter, it is often found in stubble fields and other farmland.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
			Mammals	
American badger	*Taxidea taxus*	None/SSC	American badger is most abundant in drier open stages of most shrub, forest, and grassland habitats with friable soils. It digs burrows for cover and will reuse burrows occasionally, but may also dig new burrows each night in the summer. The diet consists of rodents, small mammals, reptiles, insects, birds and carrion.	**Low potential to occur.** Although low-quality habitat for this species may be present within or adjacent to the Project Area, there are only two documented occurrences of this species within 8 miles of the Project Area; one has no date or owner information and the other is from 1906.
Tehachapi pocket mouse	*Perognathus alticola inexpectatus*	None/SSC	The Tehachapi pocket mouse has been found in small numbers in annual grasslands, pinyon-juniper woodland, Joshua tree woodland, Jeffrey pine forest, and sagebrush and rabbitbrush scrub at elevations between 3,500 – 6,000 ft.	**Low potential to occur.** Although there is some low-quality habitat for this species within the Project Area, there are no recently documented occurrences of this species within 10 miles of the site.
Townsend's big-eared bat	*Corynorhinus townsendii*	None/SSC	Townsend's big-eared bat is found throughout most of western North America where it hibernates and roosts in caves and mines near entrances, or cave like structures such as buildings or under decks. It forages in forested habitats, along open edges.	**Not expected to occur.** Suitable roosting and foraging habitat for this species is not present in the vicinity of the Project Area.
desert kit fox	*Vulpes macrotis arsipus*	None/None; CDFG Code, Title 14, Section 460	The desert kit fox is an inhabitant of the Mojave and Colorado deserts in California. It primarily inhabits sparsely vegetated scrub habitats and native or annual grasslands with abundant rodent populations, such as alkali sink scrub, saltbush scrub, and chenopod scrub, although oak woodlands, vernal pools, alkali meadows and playas also provide habitat. Kit foxes are almost entirely nocturnal, and daytime activity is confined to the vicinity of the den.	**Low potential to occur.** Although low-quality habitat may be present in the Project Area, no appropriately sized burrows were observed during the field survey and the Project Area is in the extreme western edge of the species' known range.

[1]Status Legend:

SSC: Species of Special Concern (CDFW)
FP: Fully Protected (CDFW)

2 Definitions Regarding Potential for Occurrence

- Not expected to occur – Habitat within and adjacent to the Project Area is lacking for the species' life history requirements (foraging, breeding, cover, range, elevation, hydrology, vegetation community, site history, and/or disturbance regime). There are no documented occurrences of the species in the larger vicinity of the Project Area.
- Low – Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of poor quality. Because of this, the species is highly unlikely to be found within the Project Area. Any documented occurrences of the species are likely further than possible for the species to occur on the site, the date of the occurrence is several decades old, or the vicinity of the Project Area has been developed in a manner that likely precludes the species from presently occurring.

- Moderate – Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. There are recently documented occurrences in the near vicinity of the Project Area; therefore, the species has a moderate probability of utilizing the site.
- High – All of the habitat components meeting the species requirements are present, and/or most of the habitat on or adjacent to the Project Area is highly suitable. There are documented occurrences of the species on or immediately adjacent to the Project Area; therefore, the species has a high probability of utilizing the Project Area.
- Present – Species was observed within the Project Area during field surveys or has been recorded (i.e., CNDDB, or other source) within the Project Area recently.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Sources:

California Department of Fish and Wildlife (CDFW). 2024. California Natural Diversity Database (CNDDB). Rarefind, Version 5 (Commercial Subscription). Accessed August 2024. Sacramento, California. Website https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx#.

United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation (IPaC). The Environmental Conservation Online System. Accessed August 2024. Sacramento, California. Website https://ecos.fws.gov/ipac/.

APPENDIX B
Special-Status Plant Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Allium howellii var. *clokeyi*	Mt. Pinos onion	None/None, CRPR 1B.3	Perennial bulbiferous herb found in Great Basin scrub, pinyon and juniper woodland, and meadows and seeps (edges). Elevation 4,265-6,070 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Androsace elongata ssp. *acuta*	California androsace	None/None, CRPR 4.2	Annual herb found in chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland. Elevation 490-4,280 feet. Blooms Mar-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Calochortus clavatus var. gracilis	slender mariposa-lily	None/None, CRPR 1B.2	Perennial bulbiferous herb found in chaparral, coastal scrub, and valley and foothill grassland (shaded foothill canyons; often on grassy slopes within other habitats). Elevation 1,045-3,280 feet. Blooms Mar-Jun (Nov).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	None/None, CRPR 1B.1	Perennial bulbiferous herb found in meadows and seeps, chaparral, and lower montane coniferous forest. Occurs in vernally moist places in yellow-pine forest and chaparral. Elevation 2,325-7,840 feet. Blooms Apr-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Calystegia peirsonii	Peirson's morning-glory	None/None, CRPR 4.2	Perennial rhizomatous herb found in chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevation 100-4,920 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Castilleja gleasoni	Mt. Gleason paintbrush	None/Rare, CRPR 1B.2	Perennial herb (hemiparasitic) found in lower montane coniferous forest, chaparral, and pinyon and juniper woodland (open flats or slopes in granitic soil). Restricted to the San Gabriel Mountains. Elevation 3,805-7,120 feet. Blooms May-Jun (Sep).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	None/None, CRPR 1B.1	Annual herb found in coastal scrub and valley and foothill grassland (sandy soils). Elevation 490-4,005 feet. Blooms Apr-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Chorizanthe spinosa	Mojave spineflower	None/None, CRPR 4.2	Annual herb found in chenopod scrub, Joshua tree "woodland", Mojavean desert scrub (playas, sometimes alkaline). Elevation 20-4,265 feet. Blooms Mar-Jul.	**Low potential to occur.** Although suitable habitat for this species may be present within or adjacent to the Project Area, there are no CNDDB documented occurrences of this species in LA County. All previous occurrences noted in Calflora are in the eastern portion of LA County.
Clinopodium mimuloides	monkey-flower savory	None/None, CRPR 4.2	Perennial herb found in chaparral, North Coast coniferous forest (mesic, streambanks). Elevation 1,000-5,905 feet. Blooms Jun-Oct.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Cryptantha clokeyi	Clokey's cryptantha	None/None, CRPR 1B.2	Annual herb found in Mojavean desert scrub. Elevation 2,380-4,480 feet. Blooms in Apr.	**Low potential to occur.** Marginally suitable habitat for this species is present within the Project Area though occurrence is unlikely due to the history of agricultural disturbance.
Delphinium parryi ssp. *purpureum*	Mt. Pinos larkspur	None/None, CRPR 4.3	Perennial herb found in chaparral, Mojavean desert scrub, pinyon and juniper woodland. Elevation 3,280-8,530 feet. Blooms May-Jun.	**Low potential to occur.** Marginally suitable habitat for this species is present within the Project Area though occurrence is unlikely due to the history of agricultural disturbance. Outside of known elevation range.
Diplacus pictus	calico monkeyflower	None/Endangered, CRPR 1B.2	Annual herb found in broadleaved upland forest and cismontane woodland within granitic, disturbed areas. Elevation 325-4,690 feet. Blooms Mar-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Dudleya abramsii ssp. *calcicola*	limestone dudleya	None/None, CRPR 4.3	Perennial herb found in chaparral, pinyon and juniper woodland (carbonate). Elevation 1,640-8,530 feet. Blooms Apr-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Eriastrum hooveri	Hoover's eriastrum	None/None, CRPR 4.2	Annual herb found in chenopod scrub, pinyon and juniper woodland, valley and foothill grassland (sometimes gravelly). Elevation 165-3,000 feet. Blooms Mar-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Eriogonum callistum	Tehachapi buckwheat	None/None, CRPR 1B.1	Perennial herb found in chaparral (openings, rocky, limestone). Elevation 4,590-5,675 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Eriophyllum lanatum var. *hallii*	Fort Tejon woolly sunflower	None/None, CRPR 1B.1	Perennial herb found in chaparral and cismontane woodland, often on slopes in loamy soils. Elevation 3,490-4,920 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Eschscholzia lemmonii ssp. *kernensis*	Tejon poppy	None/None, CRPR 1B.1	Annual herb found in chenopod scrub and valley and foothill grassland. Elevation 520-3,280 feet. Blooms (Feb)Mar-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Species not known to occur in Los Angeles County.
Frasera neglecta	pine green-gentian	None/None, CRPR 4.3	Perennial herb found in lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Elevation 4,595-8,205 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Fritillaria pinetorum	pine fritillary	None/None, CRPR 4.3	Perennial bulbiferous herb found in chaparral, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest (sometimes granitic, metamorphic). Elevation 5,695-10,825 feet. Blooms May-Jul (Sep).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Gilia interior	inland gilia	None/None, CRPR 4.3	Annual herb found in cismontane woodland, Joshua tree "woodland", lower montane coniferous forest (rocky). Elevation 2,295-5,580 feet. Blooms Mar-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Gilia latiflora ssp. *cuyamensis*	Cuyama gilia	None/None, CRPR 4.3	Annual herb found in pinyon and juniper woodland (sandy). Elevation 1,950-6,560 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Githopsis tenella	delicate bluecup	None/None, CRPR 1B.3	Annual herb found in chaparral and cismontane woodland (mesic sites, sometimes serpentinite). Elevation 1,065-6,235 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Goodmania luteola	golden goodmania	None/None, CRPR 4.2	Annual herb found in Mojavean desert scrub, meadows and seeps, playas, valley and foothill grassland (usually wetlands, sometimes clay, alkaline). Elevation 65-7,220 feet. Blooms Apr-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. There are no CNDDB documented occurrences of this species in LA County.
Leptosiphon serrulatus	Madera leptosiphon	Endangered/None, CRPR 1B.2	Annual herb found in cismontane woodland and lower montane coniferous forest (dry slopes, often on decomposed granite in woodland). Elevation 980-4,265 feet. Blooms Apr-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lessingia tenuis	spring lessingia	None/None, CRPR 4.3	Annual herb found in chaparral, cismontane woodland, lower montane coniferous forest (openings). Elevation 985-7,055 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	None/None, CRPR 4.2	Perennial bulbiferous herb found in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland (openings). Elevation 100-5,905 feet. Blooms Mar-Jul (Aug).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lupinus elatus	silky lupine	None/None, CRPR 4.3	Perennial herb found in lower montane coniferous forest, upper montane coniferous forest. Elevation 920-9,845 feet. Blooms Jun-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lupinus peirsonii	Peirson's lupine	None/None, CRPR 1B.3	Perennial herb found in Joshua tree woodland, pinyon and juniper woodland, lower montane coniferous forest, and upper montane coniferous forest (decomposed granite slide and talus, on slopes and ridges). Elevation 3,280-8,200 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Microseris sylvatica	sylvan microseris	None/None, CRPR 4.2	Perennial herb found in chaparral, cismontane woodland, Great Basin scrub, pinyon and juniper woodland, valley and foothill grassland (rarely serpentine). Elevation 150-4,920 feet. Blooms Mar-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Monardella linoides ssp. *anemonoides*	southern Sierra monardella	None/None, CRPR 1B.3	Perennial herb found in chaparral, cismontane woodland, and lower montane coniferous forest. Elevation 2,200-8,040 feet. Blooms Jun-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Monardella linoides ssp. *oblonga*	Tehachapi monardella	None/None, CRPR 1B.3	Perennial rhizomatous herb found in lower montane coniferous forest, upper montane coniferous forest, and pinyon and juniper woodland. On dry slopes of yellow pine forest, occurs in decomposed granitic soils; also in roadside disturbed areas. Elevation 2,950-8,105 feet. Blooms (may)Jun-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Occurrence unlikely due to history of agricultural disturbance.
Muhlenbergia utilis	aparejo grass	None/None, CRPR 2B.2	Perennial rhizomatous herb found in chaparral, and cismontane woodland (coastal, sometimes alkaline, sometimes serpentine soils). Elevation 80-7,630 feet. Blooms Mar-Oct.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Navarretia fossalis	spreading navarretia	Threatened/None, CRPR 1B.1	Annual herb found in chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, and vernal pools. Elevation 95-2,150 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Nemophila parviflora var. *quercifolia*	oak-leaved nemophila	None/None, CRPR 4.3	Annual herb found in cismontane woodland, lower montane coniferous forest. Elevation 2,295- 7,220 feet. Blooms May-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Opuntia basilaris var. *brachyclada*	short-joint beavertail	None/Threatened, CRPR 1B.1	Perennial stem found in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland (sandy soil or gravelly granitic loam). Elevation 1,390-5,905 feet. Blooms Apr-Jun (Aug).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Opuntia basilaris var. *treleasei*	Bakersfield cactus	Endangered/ Endangered, CRPR 1B.1	Perennial stem found in chenopod scrub, cismontane woodland, and valley and foothill grassland. Elevation 390-4,755 feet. Blooms Apr-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Species not observed.
Perideridia pringlei	adobe yampah	None/None, CRPR 4.3	Perennial herb found in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland (often clay, serpentine). Elevation 985-5,905 feet. Blooms Apr-Jun (Jul).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Physaria ludoviciana	silver bladderpod	None/None, CRPR 2B.2	Perennial herb found in Great Basin scrub. Elevation 6,985-6,990 feet. Blooms May-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Plagiobothrys torreyi var. *perplexans*	chaparral popcornflower	None/None, CRPR 4.3	Annual herb found in chaparral, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest (igneous soils, burned areas). Elevation 3,500-9,000 feet. Blooms Apr-Sep.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Sidalcea neomexicana	salt spring checkerbloom	None/None, CRPR 2B.2	Perennial herb found in playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, alkali springs and marshes. Elevation 45-5,020 feet. Blooms Mar-Jun.	**Not expected to occur.** Suitable wetland habitat for this species is not present within or adjacent to the Project Area.
Streptanthus campestris	southern jewelflower	None/None, CRPR 1B.3	Perennial herb found in chaparral, lower montane coniferous forest, and pinyon and juniper woodland (open, rocky areas). Elevation 2,950-7,545 feet. Blooms (Apr) May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Streptanthus medeirosii	Tejon jewelflower	None/None, CRPR 1B.1	Perennial herb found in cismontane woodland (carbonate and granitic soils). Elevation 4,460-6,170 feet. Blooms Jun-Sep.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Symphyotrichum greatae	Greata's aster	None/None, CRPR 1B.3	Perennial rhizomatous herb found in broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland. Elevation 980-6,595 feet. Blooms Jun-Oct.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Syntrichopappus lemmonii	Lemmon's syntrichopappus	None/None, CRPR 4.3	Annual herb found in chaparral, Joshua tree "woodland", pinyon and juniper woodland (sometimes gravelly, sandy). Blooms Apr-May (Jun). Elevation 1,640-6,000 feet.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

[1] Status Legend:
CRPR 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere
CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

[2] Definitions Regarding Potential for Occurrence

- Not expected to occur – Habitat within and adjacent to the Project Area is lacking for the species' life history requirements (foraging, breeding, cover, range, elevation, hydrology, vegetation community, site history, and/or disturbance regime). There are no documented occurrences of the species in the larger vicinity of the Project Area.
- Low – Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of poor quality. Because of this, the species is highly unlikely to be found within the Project Area. Any documented occurrences of the species are likely further than possible for the species to occur on the site, the date of the occurrence is several decades old, or the vicinity of the Project Area has been developed in a manner that likely precludes the species from presently occurring.
- Moderate – Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. There are recently documented occurrences in the near vicinity of the Project Area; therefore, the species has a moderate probability of utilizing the site.
- High – All of the habitat components meeting the species requirements are present, and/or most of the habitat on or adjacent to the Project Area is highly suitable. There are documented occurrences of the species on or immediately adjacent to the Project Area; therefore, the species has a high probability of utilizing the Project Area.
- Present – Species was observed within the Project Area during field surveys or has been recorded (i.e., CNDDB, or other source) within the Project Area recently..

Sources:

California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society. Sacramento, CA. Accessed August 2024.

United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation (IPaC). The Environmental Conservation Online System. Accessed August 2024. Sacramento, California. Website https://ecos.fws.gov/ipac/.

California Department of Fish and Wildlife (CDFW). 2024. California Natural Diversity Database (CNDDB). Rarefind, Version 5 (Commercial Subscription). Accessed August 2024. Sacramento, California. Website https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx#.

Appendix C-2

Biological Resources Supplemental Memorandum

Kimley»Horn

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819
916-706-1374

RINCON CONSULTANTS, INC. SINCE 1994

May 1, 2025

Ryan Nyberg, Permitting Manager
RPCA Solar 12, LLC
44 Montgomery Street, Suite 3150
San Francisco, California 94104
Via email: ryan@renewprop.com

Subject: Biological Resources Supplemental Memorandum for the 230th Street Solar Project in Los Angeles County, California

Dear Ryan:

This memorandum has been prepared to address a second round of comments received from the County of Los Angeles (County) on February 27, 2025, regarding the Initial Study/Mitigated Negative Declaration (IS/MND) and Biological Resources Assessment (BRA) for the 230th Street Solar Project (Project) in Los Angeles County, California.

A BRA was prepared by Kleinfelder[1] in February 2023. This assessment included a desktop review of available databases that manage records of known biological resources in the vicinity of the approximate 29-acre Project area, such as the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Inventory of Rare Plants (online version), among others. In addition, a field survey was conducted on the site to verify existing conditions and assess the potential for special-status plant and wildlife species and sensitive biological resources to occur, and the potential effects to these biological resources due to construction and operation of the Project. This assessment was prepared to support the analysis contained in the IS/MND in accordance with the California Environmental Quality Act (CEQA).

Kimley-Horn integrated the BRA results into the IS/MND and submitted the IS/MND to the County for review on June 20, 2024. An initial round of comments from the County was received in August 2024. These comments were addressed in October 2024 and the IS/MND was resubmitted to the County for a second review at that time. This letter is to address comments received from the County on February 27, 2025, during the second review of the IS/MND.

[1] The Kleinfelder biologists who prepared the BRA are now employed by Rincon Consultants.

Summary of Comments on the ISMND to be Addressed in this Memo

The County provided the following comments and/or recommendations during the second review of the IS/MND on February 27, 2025:

- A request for clarifying details in the Project Description (PD) to include further discussion of construction, operations and maintenance (O&M), and decommissioning phases.
- A recommendation to perform surveys for burrowing owl (*Athene cunicularia*; BUOW) prior to initiation of construction. Also, to update the language in the IS/MND to reflect the recent status change of BUOW as a candidate for listing under the California Endangered Species Act (CESA).
- A recommendation to perform an assessment of burrows with potential to support desert kit fox (*Vulpes macrotis*) and American badger (*Taxidea taxus*) during the BUOW surveys, and potential impacts to these species if suitable burrows are present, as well as a request to include mitigation measures for these species.
- A recommendation to perform additional rare plant surveys.
- A recommendation to perform surveys for Crotch's bumble bee and potentially suitable habitat.
- A recommendation to perform surveys for Swainson's hawk (*Buteo swainsoni*; SWHA), and a request to implement a 0.5-mile buffer if active SWHA nests are found during surveys.
- A recommendation for a preconstruction nesting bird survey, including a 500-foot buffer for raptors, be conducted, and additional surveys occur during O&M and decommissioning phases, including monitoring and reporting.
- A request for clarification regarding Project fencing.
- A request to include a description of how the solar panels will be mounted and if any wildlife entrapment issues may be present; and, to include wildlife entrapment avoidance in the Worker Environmental Awareness Training (WEAT) presentation.
- A recommendation to perform surveys for bats, to determine the potential for foraging on the site.
- A request for the County to review the WEAT.
- A request to include language regarding trash in MM BIO-3 (updated to MM BIO-4), and that it must be removed daily or stored in wildlife proof containers to reduce attraction of ravens.
- A request that MM BIO-4 (updated to MM BIO-5) apply to all phases of the Project (construction, O&M, and decommissioning).
- A request for nesting bird monitoring and avoidance in the O&M and Decommissioning Plan.

Response to Comments

Below are detailed responses to the above comments.

Project Description

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as June 2026. Project construction activities generally fall into six main categories: (1) demolition, (2) site preparation (vegetation clearing), (3) grading, (4) paving, (5) system installation, and (6) testing, commissioning, and cleanup. The on-site construction workforce is expected to peak at approximately 50 individuals during the construction

period, but approximately 15 to 20 workers may be expected during non-peak activities. Construction personnel will be divided between civil and electrical services.

The perimeter fence would be installed at the onset of construction to establish the outer boundaries of the Project Site. Site preparation would consist of clearing the existing vegetation in those areas on the Project Site where construction would be undertaken, grading, and establishing temporary staging area (including stockpile and laydown areas) as necessary. Selected vegetation would be removed to accommodate the construction of the array and its appurtenances, as well as to prevent shading on the array during operation. Any vegetation taller than two feet (e.g., the height of the solar modules above grade) or expected to exceed two feet in height would be removed. Grass and groundcover may remain between rows and under the solar modules. All cleared vegetation would be chipped or spread on-site or disposed of responsibly.

A temporary staging area would be used as laydown area for construction equipment and materials. The staging area would also include a location for sanitary facilities and a construction trailer. The area containing the equipment and materials would be closed within a temporary construction fence with a lockable gate. Construction equipment such as tractors, backhoes, loaders, dozers, and graders may be needed to clear vegetation from the Project Site, and to grade roads and areas where structures will stand. All soils would be balanced on-site, and no import or export is expected.

Erosion and sediment control best management practices (BMPs) would be installed on the Project Site to prevent stormwater runoff. These BMPs would remain in place until construction is complete and until the Project Site is reseeded and stabilized in accordance with applicable code requirements. The construction contractor would be required to incorporate BMPs consistent with the County's ordinance and with guidelines provided in the California Stormwater Quality Association's Construction Best Management Practice Handbook, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and a Soil Erosion and Sedimentation Control Plan to reduce potential impacts related to construction of the Project.

Erection of the solar arrays would include support structures and associated electrical equipment and cabling. During this work, there would be multiple crews working on the Project Site with various equipment and vehicles, including special vehicles for transporting the modules and other equipment. As the solar arrays are installed, the electrical collection and communication systems would be installed.

Operation

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be stored vertically at the end of the day. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance. The Project is designed to comply with the development standards of the Los Angeles County's Renewable Energy Ordinance.

The Project would have a useful life of approximately 35 years and would operate year-round. The Project would be unmanned, and no employees would report to the Project Site daily. Typical O&M activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and

maintenance of solar facilities; and periodic panel and inverter washing. It is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

All scheduled maintenance of the Project would occur from 8 a.m. to 5 p.m. Unscheduled maintenance visits would generally occur only if an emergency situation develops at the Project Site or its immediate surroundings that could endanger the functional capacity of the Project and/or endanger the general public health, safety, and welfare of the Project Site and its surroundings. In the event of a major disruption to the Project Site, a corrective maintenance visit would be scheduled as soon as possible with all reasonable effort to schedule any such maintenance activities between 8 a.m. and 5 p.m.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste with a preference for recycling.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off-site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

Burrowing Owl

The language in the ISMND will be updated to reflect the recent status change of BUOW as a candidate for listing under CESA. Rincon biologists performed a protocol-level BUOW survey according to the CDFW "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012) on April 3, 2025. No burrows of suitable size (4 inches or greater) were observed during the survey, and no burrowing owls were detected. The conclusion of the IS/MND regarding the potential presence of BUOW on the site is supported by these results. An Incidental Take Permit for this species is not warranted at this time. We recommend including the following mitigation measure in the unlikely event BUOW are detected on the site in the future:

- *Mitigation Measure:* Should BUOW individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any preconstruction surveys, work will stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). CDFW will be notified within 24 hours of the detection to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration. Prior to decommissioning, non-breeding season and breeding season

protocol-level surveys will be performed to determine presence of BUOW on the site. If any BUOW individuals or sign is detected during the surveys, CDFW will be contacted to determine next steps.

Desert Kit Fox and American Badger

During the BUOW survey that was performed on April 3, 2025, no burrows of suitable size for desert kit fox or American badger (4 inches or greater) were observed during the survey, and no desert kit foxes or American badgers were detected. The conclusion of the IS/MND regarding the low potential for presence of desert kit fox and American badger on the site is supported by these results. A preconstruction survey for burrows that could support desert kit fox or American badger will be performed 48 hours prior to construction, and if suitable burrows for either species are observed, the following measures will be implemented:

- *Mitigation Measure:* If occupied desert kit fox dens are detected during the preconstruction survey, a Desert Kit Fox Avoidance Plan will be prepared and submitted to CDFW for written approval. The Plan will include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) will be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring will occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den will be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens will be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers will be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.
- *Mitigation Measure:* If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den.

  If an active den cannot be avoided, a Badger Eviction Plan will be prepared and submitted to CDFW for approval. The Plan will describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).

Rare Plants and Vegetation Community Mapping

A rare plant survey was performed on April 8, 2025, by two qualified Rincon botanists. No rare plants were observed on the site. The vegetation communities mapped on the site included cheat grass grassland and rubber rabbit brush scrub. Although some small patches of native wildflowers were observed on the site (including California poppy [*Eschscholzia californica*] and yellowray goldfields [*Lasthenia glabrata*], none were large enough to be classified as a "wildflower field" according to Holland types and minimum mapping standards employed during the survey. The conclusion of the IS/MND regarding the potential for impacts to rare plants or sensitive vegetation communities is supported by these results. To minimize the potential impacts to native vegetation and to promote Project site revegetation following construction, the following mitigation measure is recommended:

- *Mitigation Measure*: To the extent practicable, construction activities will be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles will be used during construction and grading of Project areas will be limited the minimum

necessary to meet Project objectives. Application of seed will be limited to that required to meet Project objectives and seed mixes will be provided to the County for review prior to application.

Crotch's Bumble Bee

A formal habitat assessment was performed on April 8, 2025, to determine if suitable nesting or foraging habitat for Crotch's bumble bee is present on the Project site. During the survey, Rincon biologists observed potentially suitable foraging and nesting habitat for Crotch's bumble bee. However, the Project site provides limited suitable habitat compared to surrounding areas due to previous agricultural activities, and no bumble bees were observed during the habitat assessment. A protocol survey pass was performed on April 21, 2025, by two qualified Ricon biologists each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed. Accordingly, there is a low potential for Crotch's bumble bee on the Project site. To address potential impacts to Crotch's bumble bee, the following mitigation measure is recommended:

- *Mitigation Measure*: Protocol surveys following the CDFW *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023) will be performed prior to construction to determine if Crotch's bumble bee is present on the Project site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required.

  If this species is detected foraging within 100 feet of the Project site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project site, the nest will be avoided by a 50-foot buffer. The nest will be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following will be implemented:

  - If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code section 2081 subdivision (b).
  - Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on) that will be removed or damaged by the Project should be replaced at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources should be replaced as close to their original location as is feasible after the Project is constructed. These floral resources should be maintained during the life of the Project and should be replanted and managed as needed to ensure the habitat is preserved.

Swainson's Hawk

Swainson's hawk occurrences in the vicinity of the Project site are concentrated 15+ miles east of the Project site around Lancaster and east of Lancaster. A Swainson's hawk survey was performed by qualified Rincon biologists on April 15, 2025. No Swainson's hawks were observed within the 0.5-mile buffer of the site during the survey. There is only one CNDDB documented occurrence of SWHA within 5 miles of the site, dated 2020. The preconstruction nesting bird survey buffer will be extended to 0.5-mile for SWHA, where accessible. If any active SWHA nests are detected within the 0.5-mile buffer, they will be monitored for a minimum of 3 hours to determine a baseline of behavior, and will be avoided by a minimum 0.25-mile buffer. After the initial baseline monitoring event, the nest will be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest will be monitored for at least 2 hours each week between 7:00 am and 10:00 am, and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) will be kept in a field notebook or digital field data collection

application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer will remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

Nesting Bird Surveys

A preconstruction nesting bird survey will be performed no more than 5 days prior to the onset of construction according to MM BIO-1 prior to construction and decommissioning activities, and will include a 500-foot buffer for raptors, where accessible, and a 0.5-mile buffer for SWHA, where accessible. If any active nests are detected within Project site or buffer, they will be monitored for a minimum of 1 hour for passerines and 3 hours for raptors to determine a baseline of behavior, and will be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest will be monitored once weekly to determine the stage of the nest. The buffer will remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

Nesting bird surveys will not be required during O&M activities due to the low frequency and short duration of O&M activities over the life of the Project (e.g., panel washing 2-3 days per year with 1-2 personnel and a pickup truck); however, potential impacts to nesting birds during O&M activities will be addressed in the Project WEAT (to be included as supplemental material in the Project's O&M Manual), so that all workers on site will be aware that birds may be nesting on the site, how to identify potential nests, and avoidance strategies (e.g. implementation of buffers).

Fencing

See the updated Project description above that details the fencing specifications.

WEAT

In addition to the items included in MM BIO-3 of the IS/MND, the WEAT presentation will include strategies to avoid entrapment of wildlife during construction and decommissioning activities, avoidance of nesting birds during all phases of the Project, and reiteration that trash will be removed daily or will be stored in wildlife-proof containers. Contact information for the Project biologist and other useful wildlife-related contacts (CDFW, venomous snake humane relocation services, etc.) will be included in the WEAT. The WEAT will be sent to the County for review prior to implementation of the Project.

Bats

Work will not be conducted from an hour before sunset to an hour after sunrise; therefore, no impacts to foraging bats would occur. Furthermore, there is a low potential for bats to occur on site, based on a lack of suitable roosting habitat on and adjacent to the site. As such, surveys for foraging bats are not warranted.

MM BIO-4

Language will be included in MM BIO-4 that trash must be removed daily or stored in wildlife proof containers to reduce the chance for attracting ravens.

MM BIO-5

MM BIO-5 will apply to the construction and decommissioning phases of the Project.

Biological Monitoring During O&M and Decommissioning Activities

As detailed above, the O&M and Decommissioning Plan will include specific requirements for biological monitoring when these activities have the potential to result in impacts to nesting birds and other sensitive wildlife that may occur in or near the Project site. Specifically, activities such as vegetation maintenance or other activities conducted during the breeding bird season.

If you have any questions regarding this memo, please contact Lisa Achter at lachter@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.

Lisa Achter
Senior Biologist, Project Manager

Appendix D

Cultural Resources Identification Report

Kimley»Horn

Cultural Resources Identification Report for the 230th Street Solar Project, Los Angeles County, California

June 2023

A Report Prepared for:

Stephanie Loucas
VP, Development
RPCA Solar 12, LLC
Renewable Properties, LLC
879 Sanchez Street
San Francisco, California 94114

Prepared by:

Jessica Neal, M.A., RPA
Shelby Soares, B.A.
Alyssa Gelinas, B.A.

KLEINFELDER
2882 Prospect Park Drive, Suite 200
Rancho Cordova, California 95670
Phone: 618.771.6093

June 2023
Kleinfelder Project No: 20234230.001A

© 2023 Kleinfelder

STATEMENT OF CONFIDENTIALITY

This report identifies the locations of cultural resources, which are confidential. As nonrenewable resources, archaeological sites can be significantly impacted by disturbances that can affect their cultural, scientific, and artistic values. Disclosure of this information to the public may be in violation of both federal and State of California laws. To discourage damage resulting from vandalism and artifact looting, cultural resource locations should be kept confidential and report distribution restricted. Applicable U.S. laws include, but are not limited to, Section 304 of the National Historic Preservation Act (16 United States Congress 470w-3) and California state laws that apply and include, but are not limited to, Government Code Sections 6250 *et seq.* and 6254 *et seq.*

© 2023 Kleinfelder

MANAGEMENT SUMMARY

Renewable Properties, LLC and RPCA Solar 12, LLC propose to develop a small-scale utility solar generating facility (Project) in Los Angeles County, California (Appendix A). This report presents the findings of an archaeological assessment conducted by Kleinfelder that comprises the Area of Potential Effects (APE). The Project may seek funding from the United States Department of Agriculture under the Rural Energy for America Program. Therefore, this report has been prepared in accordance with Section 106 of the National Historic Preservation Act and the California Environmental Quality Act.

Prior to fieldwork, background research included a search of previously conducted cultural resources studies and findings filed at the South Central Coastal Information Center at California State University, Fullerton, in Fullerton, California. The results found no previously recorded cultural resources or cultural resource studies within the APE. Two previously recorded historic-era resources and three cultural resource studies were identified within the surrounding 0.5-mile radius of the APE (Appendix B).

Kleinfelder contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search of the APE. The NAHC responded on February 2, 2023, that the search returned negative results for the APE. The NAHC provided a list of Native American contacts for Kleinfelder to contact for more information regarding the APE (Appendix C). Kleinfelder distributed letters to the list of Native American contacts on February 30, 2023, requesting information on tribal cultural resources in or near the APE. A summary of correspondence is included in this report (Appendix D).

An intensive pedestrian survey of the APE was conducted on February 21, 2023. The survey was conducted using 15-meter-wide parallel transects resulting in 100 percent survey coverage of the entire APE. One isolated artifact, a chert flake, was identified during the survey. The isolate lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated singular event and is thus recommended ineligible for inclusion in the National Register of Historic Places and the California Register of Historical Resources.

No historic properties were identified within the APE during this study, as such Kleinfelder recommends a finding of no historic properties affected for this undertaking. Kleinfelder considers the APE to have moderate sensitivity for buried cultural resources within the Project vicinity, and the following measures are recommended:

- A qualified archaeologist shall provide an archaeological tailboard to any construction crew working on site during ground disturbing activities.
- In the event archaeological resources are encountered during any ground-disturbing activities associated with the Project, all ground-disturbing work at the location, plus at a reasonable buffer zone, must be immediately suspended. The approving County department shall be contacted, and a qualified professional archaeologist retained to analyze the significance of the find and formulate further mitigation (e.g., Project relocation, excavation plan, and protective cover) in consultation with culturally affiliated tribes or other descendant groups, where applicable.
- Pursuant to California Health and Safety Code §7050.5, if known or suspected Native American or other human remains are encountered, all ground-disturbing work must cease in the vicinity of the discovery, and the County Coroner contacted. The respectful treatment and disposition of remains and associated grave offerings shall be in accordance with Public Resource Code

© 2023 Kleinfelder

§5097.98. The applicant and successors in interest are ultimately responsible for ensuring compliance with this condition.

- In the event the Project design changes, and ground disturbance is anticipated beyond the APE as it is currently defined, further surveys shall be conducted in those new areas to assess the presence of cultural resources. Any newly discovered or previously recorded cultural resources within the additional survey area shall be recorded (or updated) on appropriate Department of Parks and Recreation 523-series forms. If any resources are identified as eligible for listing on the National/California Register and avoidance of these resources is not feasible, then an evaluation and/or data recovery program shall be drafted and implemented.

© 2023 Kleinfelder

TABLE OF CONTENTS

Section **Page**

STATEMENT OF CONFIDENTIALITY ..... **III**

MANAGEMENT SUMMARY ..... **IV**

ACRONYMS AND ABBREVIATIONS ..... **VIII**

1 INTRODUCTION **1**
1.1 Project Description 1
1.2 Area of Potential Effects 1

2 REGULATORY CONTEXT **2**
2.1 Section 106 of the National Historic Preservation Act 2
2.2 California Environmental Quality Act of 1970, as Amended 3
2.3 Public Resources Codes 6

3 NATURAL AND CULTURAL CONTEXT **8**
3.1 Natural Context 8
3.2 Prehistoric Context 8
3.2.1 Late Pleistocene 9
3.2.2 Early Holocene 11
3.2.3 Middle Holocene 11
3.2.4 Late Holocene 12
3.3 Ethnographic Context 15
3.4 Historical Context 16
3.4.1 Mission Period (1769–1830) 16
3.4.2 Rancho Period (1830–1865) 17
3.4.3 American Period (1865–Present) 17
3.4.4 History of Neenach 18

4 BACKGROUND RESEARCH **19**
4.1 Record Search 19
4.2 Historical Map Review 20
4.2.1 Historical Map Review Results 20

5 FIELD METHODS AND RESULTS **22**

6 NATIVE AMERICAN OUTREACH **23**

7 SENSITIVITY FOR BURIED RESOURCES **25**
7.1 Sensitivity for Buried Prehistoric Resources 25
7.2 Sensitivity for Buried Historic Period Resources 25

8 CONCLUSION **26**
8.1 Recommendations 26

9 PREPARERES' QUALIFICATIONS **27**

10 REFERENCES **28**

© 2023 Kleinfelder

Appendices

A Project Maps
B Records Search Results
C Native American Heritage Commission Results
D Native American Coordination
E Survey Photographs
F Department of Parks and Recreation Forms

© 2023 Kleinfelder

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AC	alternating current
A.D.	anno Domini
ACHP	Advisory Council on Historic Preservation
APE	area of potential effect(s)
APN	Assessor's Parcel Number
P.B.	before present
c.	circa
cal	calibrated
CCR	California Code of Regulations
CE	common era
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CRHR	California Register of Historical Resources
DC	direct current
DPR	Department of Parks and Recreation
GLO	Bureau of Land Management General Land Office
ibid	Latin *ibidem*, referring to the source of the previous citation
MW	megawatt
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
No.	number
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PPA	Power Purchase Agreement
PRC	Public Resources Code
Project	230th Street Solar Project
RPA	Register of Professional Archaeologists
SCE	Southern California Edison
SCCIC	South Central Coastal Information Center
SHPO	California State Historic Preservation Officer
SLF	Sacred Lands File
TCR	tribal cultural resource(s)
US	United States
USDA	United States Department of Agriculture
USGS	United States Geological Survey

© 2023 Kleinfelder

1 INTRODUCTION

Renewable Properties, LLC and RPCA Solar 10, LLC propose to develop a small-scale utility solar generating facility (Project) in Los Angeles County, California. The following provides an overview of the Project description, background and objectives, location, and Area of Potential Effects (APE).

1.1 PROJECT DESCRIPTION

The 230th Street Solar Project is a small-scale, ground-mounted utility-scale solar energy facility located on approximately 29 acres of a 40-acre parcel (Assessor's Parcel Number [APN] 3278-025-001). The parcel is located east of the community of Neenach in unincorporated Los Angeles County and is primarily undeveloped open space, apart from a residence in the southwestern corner of the parcel. RPCA Solar 12, LLC has entered into a long-term lease agreement with the property owners, Amilcar Ruben Badano and Debbie Badano, to facilitate the development and long-term operation of the Project.

The Project will generate a total of 4.99 megawatts (MW) alternating current (AC) (7.5 MW direct current [DC]) of clean, reliable solar energy when complete. The Project will interconnect to Southern California Edison's (SCE) pre-existing electrical distribution system located adjacent to the site. The power generated from this facility will be sold to SCE through a long-term Power Purchase Agreement (PPA). Additionally, the Project will be equipped with energy storage technology that will allow onsite renewable energy generation to be stored and dispatched onto the grid when needed.

The Project will utilize approximately 13,851 solar modules and 40 string inverters to convert the sun's energy into usable, AC, power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the array will be no more than 15 feet tall.

1.2 AREA OF POTENTIAL EFFECTS

The approximately 29-acre APE is located 0.25 mile north of California State Route 138, and on the east side of 230th Street West. The APE is situated at an elevation of approximately 2,820 feet above mean sea level. Adjacent land uses in the vicinity of the APE are primarily undeveloped, although some rural residences occur sporadically in the Project vicinity, and there are several small- to large-scale solar installations north and east of the APE.

The APE is situated within Township 20 North, Range 16 West, Section 13 of the Neenach School 7.5-minute U.S. Geological Survey (USGS) quadrangles. The corresponding latitude and longitude at the approximate center of the site are 34°46'48.87" north latitude and 118°32'04.69" west longitude.

© 2023 Kleinfelder

2 REGULATORY CONTEXT

The following section provides the federal, State of California (State), and local laws, regulations, and ordinances that are applicable to cultural resources compliance on the Project.

2.1 SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the National Historic Preservation Act (NHPA) (36 Code of Federal Regulations [CFR] §800) requires that projects undertaken by federal agencies (and/or federally funded projects or projects requiring federal approval) consider the effects of their actions on properties that may be eligible for listing or are listed in the National Register of Historic Places (NRHP). To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (including archaeological and architectural properties) must be inventoried and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead federal agency, consultants in support of the agency or project proponent may be delegated all or portions of the Section 106 process. The 230th Street Solar Project is subject to Section 106 because it will require a United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) federal grant to fund the Project. The Section 106 process includes four primary steps, listed below.

1. Initiation of consultation with consulting parties (36 CFR §800.3).
2. Identification and evaluation of historic properties within the APE (36 CFR §800.4).
3. Assessment of adverse effects on historic properties within the APE (36 CFR §800.5). If there are historic properties that will be affected, consult with the California State Historic Preservation Officer (SHPO) regarding adverse effects, both direct and indirect, on historic properties. If there are no historic properties that will be affected, implementation of the project in accordance with the findings of no adverse effect shall proceed (36 CFR 36 §800.5[d][1]).
4. Resolve adverse effects on historic properties within the APE (36 CFR 800.6). Continue consultation among the federal agency and consulting parties to avoid and mitigate adverse effects. The Advisory Council on Historic Preservation (ACHP) provides comments to head of the federal agency, and the ACHP comments must be considered when final agency decision on the undertaking is made (move forward with the project, stop pursuant to mitigation, step back through Section 106 process) (36 CFR 800.7).

National Register of Historic Places Criteria for Evaluation

The significance of cultural resources is determined using the NRHP's four Criteria for Evaluation (Criteria A–D) at 36 CFR 60.4, which state that a historic property is any site, building, structure, or object that:

A. Is associated with events that made a significant contribution to the broad patterns of our history (Criterion A);
B. Is associated with the lives of persons significant to our past (Criterion B);
C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (Criterion C); and/or
D. Has yielded, or may be likely to yield, information important in prehistory or history (Criterion D).

© 2023 Kleinfelder

If the SHPO determines that a cultural resource is eligible for inclusion in the NRHP, then it is automatically eligible for the California Register of Historic Resources (CRHR). If a resource does not have the level of integrity necessitated by the NRHP, it may still be eligible for the CRHR, which allows for a lower level of integrity.

NRHP Seven Aspects of Integrity
Cultural resources integrity is determined using the NRHP's seven aspects of integrity at 36 CFR 60.4, which state that a historic property must not only be shown to be significant under the NRHP criteria, but it also must retain historic integrity. The seven aspects of integrity include location, design, setting, materials, workmanship, feeling, and association. A property must meet one or more of the Criteria for Evaluation before a determination can be made about its integrity.

2.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT OF 1970, AS AMENDED

The California Environmental Quality Act (CEQA) requires State and local agencies to identify and reduce, if feasible, the significant, negative environmental impacts of land use decisions.

CEQA Guidelines: Title 14 California Code of Regulations (CCR) Section 1427
This section of CEQA recognizes that California's archaeological resources are endangered by urban development; the legislature finds that these resources need preserving; it is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any such materials from a cave.

CEQA Guidelines: Title 14 CCR Section 15064.4 subsection (b)
This section of CEQA defines "historical resource," addresses reburial options for Native American remains, and presents the preferred mitigation of historical resources.

CEQA Guidelines: Title 14 CCR Section 15064.5
This section of CEQA identifies which resources are considered cultural resources, as stated below.

- Resource(s) listed or eligible for listing on the CRHR (Title 14 CCR Section 15064.5(a)(1));
- Resource(s) either listed in the NRHP or in a "local register of historical resources" unless "the preponderance of evidence demonstrates that it is not historically or culturally significant" (Title 14 CCR Section 15064.5(a)(2)); and
- Resources identified as significant in a historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code (PRC) [Title 14 CCR Section 15065.5(a)(2)].

In addition, Subdivision (g) provides the guidelines referenced below regarding historical surveys.

A resource identified as significant in a historical survey may be listed in the CRHR if the survey meets all the following criteria:

- The survey has been or will be included in the State Historic Resources Inventory.
- The survey and the survey documents were prepared in accordance with procedures and requirements of the California Office of Historic Preservation (OHP).
- The resource is evaluated and determined by OHP to have a significance rating of Category 1 to 5 on the Department of Parks and Recreation (DPR) Historic Resources Inventory Form.
- If the survey is 5 years or older at the time of its nomination for inclusion in the CRHR, the survey is updated to identify historic resources that have become eligible or ineligible due to changed

© 2023 Kleinfelder

circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminished the significance of the resource.
- Resources identified during such surveys are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates otherwise.
- A final category of "historical resources" may be determined at the discretion of the lead agency when: any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, education, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record [Title 14 CCR Section 15064.5(a)(3)].

When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within a project, the lead agency shall work with the appropriate Native Americans as identified by Native American Heritage Commission (NAHC). An applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by NAHC (Title 14 CCR Section 15064.5(d)).

CEQA Guidelines: Title 14 CCR Section 15064.5(b)
Section 15124(b) addresses mitigation, and states that the preferred mitigation for historical resources is treatment in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The preferred mitigation for archaeological sites is preservation in place.

CEQA Guidelines: Title 14 CCR Section 15064.7 "Thresholds of Significance"
This section encourages agencies to develop thresholds of significance to be used in determining potential impacts and defines the term "cumulatively significant."

CEQA Guidelines: Title 14 CCR Section 15126.4 "Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects", sub-section (b) "Mitigation Measures Related to Impacts on Historical Resources"
Subsection (b) discusses:

- Impacts of maintenance, repair, stabilization, restoration, conservation, or reconstruction of a historical resource;
- Documentation as a mitigation measure; and
- Mitigation through avoidance of damaging effects on any historical resource of an archaeological nature, preferably by preservation in place, or by data recovery through excavation if avoidance or preservation in place is not feasible; data recovery must be conducted in accordance with an adopted data recovery plan.

CEQA Appendix G Section V
This appendix is a checklist that identifies potential impacts to historical and archaeological resources, and/or human remains. The checklist includes the following questions, which are used to determine if a potential project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; and

© 2023 Kleinfelder

- Disturb any human remains, including those interred outsides of formal cemeteries.

Questions on the checklist are answered to assess whether impacts associated with a project would be potentially significant, less than significant with mitigation, less than significant, or have no impact. The final determination of project-related impacts is made by the lead agency on a project.

CEQA Assembly Bill 52 –Tribal Consultation and Tribal Cultural Resources

Assembly Bill (AB) 52 amended CEQA to address California Native American tribal concerns regarding how cultural resources of importance to tribes are treated under CEQA. CEQA now specifies that a project that may cause a substantial adverse change in the significance of a "tribal cultural resource" [as defined in PRC 21074(a)] is a project that may have a significant effect on the environment. According to AB 52, tribes may have expertise in tribal history and "tribal knowledge about land and tribal cultural resources (TCR) at issue should be included in environmental assessments for projects that may have a significant impact on those resources."

The AB 52 process entails the following:

- The CEQA lead agency must begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe has requested such notification to the lead agency, in writing. The notification request requires that the lead agency inform these tribes of proposed projects in the geographic area provided by the representative tribe; and within set timeframes. Specifically, the lead state agency is required to notify tribe(s) that have requested project notification under AB 52 within 15 days of determining there is a project; the tribe(s) then have 30 days to respond to this notification and request consultation: upon receipt of a request for consultation the lead agency must then initiate consultation with the tribe(s) within 30 days.
- AB 52 applies to the following CEQA documents: Negative Declaration, Mitigated Negative Declaration, or Notification of Preparation of an Environmental Impact Report. Such documents cannot be released for public review before tribal consultation has concluded and shall not contain any confidential information that the Tribe has requested be omitted from public review.

AB 52 further defines the following legislative terms:

PRC 21074 (TCR): The statute identifies TCR as separate and distinct category of resource, separate from a historical resource. New PRC Section 21074 further defines a TCR as any of the following under its subsections (a) through (c):

a) Sites, features, places, and objects with cultural value to descendant communities or cultural landscapes that are any of the following:
    - Listed on the CRHR;
    - Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and
    - Deemed to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1.

b) Sacred places, including, but not limited to, Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines that meet either of the following criteria:
    - Listed on the California NAHC's Sacred Lands File (SLF) pursuant to Section 5097.94 or 5097.96 and a California Native American tribe has submitted sufficient evidence to the

© 2023 Kleinfelder

lead agency demonstrating that significance to the California Native American tribe or contain known graves and cemeteries of California Native Americans.
    - Listed or determined pursuant to criteria set forth in subdivision (g) of Section 5024.1 to be eligible for listing in the CRHR.

c) A cultural landscape is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

d) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "non-unique archaeological resource" as defined in subdivision (h) of Section 21083.2 also may be a TCR if it conforms with the criteria of subdivision (a).

2.3 PUBLIC RESOURCES CODES

PRC Section 5020.1
This section defines several terms, including those provided below.

> "Historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.
>
> "Substantial adverse change" means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired.

PRC Section 5024.1
This section establishes the CRHR. A resource may be listed as a historical resource in the CRHR if it meets the NRHP criteria or the following state criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

PRC Section 5097.5
This section states that any unauthorized removal or destruction of archaeological or paleontological resources on sites located on public land is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the State or any city, county, district, authority or public corporation, or any agency thereof.

PRC Section 5097.98
This section discusses the procedures that need to be followed upon the discovery of Native American human remains. NAHC, upon notification of the discovery of human remains by the County coroner, is required to notify those persons it believes to be most likely descended from the deceased Native American. It enables the descendant to inspect the site of the discovery of the Native American human remains and to recommend to the landowner (or person responsible for the excavation) means of treating, with dignity, the human remains and any associated grave goods.

© 2023 Kleinfelder

PRC Sections 5097.99, 5097.991
These sections establish that it is a felony to obtain or possess Native American artifacts or human remains taken from a grave or cairn and sets penalties for these actions. The sections also mandate that it is the policy of the State to repatriate Native American remains and associated grave goods.

PRC Section 21083.2
This section states that under CEQA, the lead agency is responsible for determining whether a project may have a significant effect on historical and archaeological resources. Section 21083.2 states that if the lead agency determines that the project may have a significant effect on "unique" archaeological resources, an EIR shall be prepared to address these resources. A unique archaeological resource is an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that the resource meets one of the following criteria:

- Contains information needed to answer important research questions and that a demonstrable public interest exists in that information;
- Has a special and particular quality, such as being the oldest or best example of its type; and/or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require that reasonable efforts be taken to preserve these resources in place or provide conditions or mitigation measures.

PRC Section 21084.1
This section sets forth that a project that may cause a significant adverse change in a significant historical resource is a project that may be considered to have adverse effects on the environment. Historical resources not listed on the CRHR or other local lists may still be considered historical resources at the discretion of the lead agency on the project.

© 2023 Kleinfelder

3 NATURAL AND CULTURAL CONTEXT

This section presents background information pertaining to the natural and cultural context of the APE, as well as an overview of regional cultural chronology, ethnography, and history.

3.1 NATURAL CONTEXT

Los Angeles County comprises approximately 4,084 square miles within southern California. Kern County borders it to the north, San Bernadino and Orange Counties to the east, the Pacific Ocean to the south, and Ventura County to the west. The local Mohave desert climate is characterized by hot, dry summers with temperatures in the upper 90s and cold winters with occasional inches of snow.

The APE is located in northwest unincorporated Los Angeles County, approximately 2.5 miles south from the southern boundary of Kern County and 4.5 miles northeast from the Miocene-era Neenach Volcano Formations. The APE is primarily bordered by vacant land with well-drained Greenfield and Hanford sandy loam soils found on alluvial fans and terraces derived from granite (USDA 2023). Site elevations range from approximately 2,810 to 2,830 feet above mean sea level.

Two vegetation communities, rubber rabbitbrush (*Ericameria nauseosa*) scrub and inactive agriculture/ruderal, were mapped during the field survey. Rubber rabbitbrush is dominant or co-dominant in this vegetation community and may coexist with big sagebrush (*Artemisia tridentata*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), Ephedra spp., California buckwheat (*Eriogonum fasciculatum*), California broomsage (*Lepidospartum squamatum*) and bitterbrush (*Purshia tridentata*). In the Project area, rubber rabbitbrush was dominant and patchy, as it seems to have recently recolonized portions of the site after it was discontinued from being used for agricultural purposes.

The APE was in active agriculture until approximately 2011 or 2012 and appears to have remained fallow since then. As such, weedy species like Erodium sp., Plantago sp. and mustard (Brassica sp.) have colonized the site. Some annual grasses were also observed during the field survey, although they were not identifiable due to the time of year the survey was performed.

3.2 PREHISTORIC CONTEXT

Archaeological sequences for the Great Basin and Mojave Desert regions are grouped into Late Pleistocene and Early, Middle, and Late Holocene time frames, with period definitions varying by region. These chronological divisions correlate with climatic and environmental changes and are continually being refined as new data are collected and dating techniques are improved.

Archaeological evidence left by highly mobile hunter-gatherers usually takes the form of sparse scatters of lithic artifacts and small features such as hearths, small rock rings, and milling features. These remains may represent short-term encampments, but the repeated return to specific locations over long periods of time may nevertheless result in substantial archaeological deposits. Archaeological sites in desert regions of California are often limited to surface assemblages that lack datable organic materials or stratigraphic associations, and therefore archaeologists working in these regions rely largely on variations in projectile point morphology to place sites in time.

© 2023 Kleinfelder

Table 1 lists the period designations that are commonly used by archaeologists to describe the culture history of the current study area. These local periods correspond to period designations that have been broadly applied to the Mojave Desert; in many cases these designations share the name with the "index" projectile point type that was prevalent during that time period.

3.2.1 Late Pleistocene

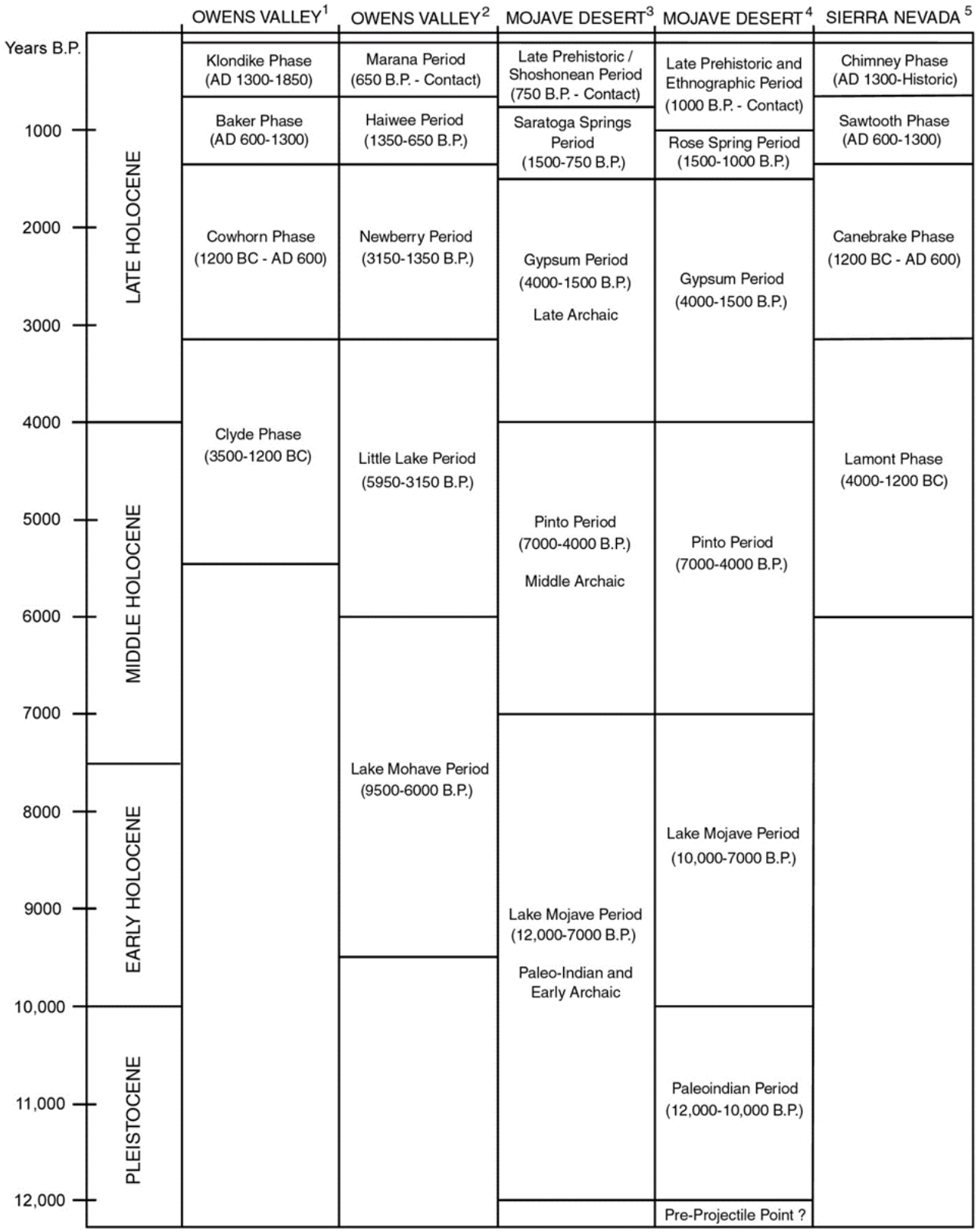
Paleoindian Period (Pre-9500 Before Present [B.P.])

Little is known about the human occupation of this region during the Late Pleistocene. Fluted projectile points characteristic of the Paleoindian period have been documented in scattered locations throughout the western Mojave Desert and southwestern Great Basin, but with few exceptions these points have been found as isolates in undatable surface contexts and therefore have been associated with the Paleoindian period solely on the basis of their morphological similarity to securely dated Clovis projectile points from the Great Plains and Southwest regions (Dillon 2002:115; Sutton 1996). Excavations at China Lake during the 1970s uncovered fluted points associated with burned, extinct megafaunal material (Davis 1975) providing convincing evidence that there was human occupation in the region during the terminal Pleistocene. Examples of fluted Paleoindian projectile points have been recovered in the immediate vicinity of the proposed project (Dillon 2002: Table 1) and include a fragment of an obsidian Clovis point recovered from the Rose Spring site (CA-INY-372), located approximately 0.25 mile south of the Haiwee power plant (Yohe 1992). Other tools associated with the Paleoindian period are large side scrapers, blades struck from prepared cores, and a mixture of expedient flaked tools (Justice 2002:73).

Extinct lakeshore and wetland environments are of particular interest to archaeologists who are studying the late Pleistocene and early Holocene—Bryan and Tuohy (1999) assert that "an economic adaptation to the presence of an existing shallow freshwater lake and the bioresources available in and around it clearly was the most important factor in the organization of the annual round followed by early prehistoric occupants of the Great Basin." During the wet and cool Pleistocene, basin-and-range topography caused most Great Basin lakes to follow a sequence of fluctuations punctuated by overflows, rather than to exist as a steady-state system of continuously incoming and outgoing streams. Lakes along the eastern edge of the Sierra Nevada Mountains were arranged as a chain, and during times of high precipitation and glacial melt, each lake would fill up to its overflow point and spill downriver to the next lake in the chain. Lake Russell (which encompassed the present-day Mono Lake) was the farthest north in the chain; water would flow south in turn through Adobe and Owens lakes, through Rose Valley (including the wash that contains the project area) to China and Searles lakes, and then up north into Panamint Lake (Grayson 1993). Highstand dates for these lakes are not identical, which emphasizes the regional nature of the early Pleistocene climatic swings. Sediment investigations have shown that Owens Lake last overflowed sometime before 15,300 B.P., or before the earliest evidence of humans in the area (Bacon et al. 2006). Dorn et al. (1990) compared their own radiocarbon dates with the results from other researchers and arrived at highstand dates of 10,500 B.P. for Searles Lake, 10,000 B.P. for Lake Manly and no later than 9220 B.P. for Lake Mojave.

It is not currently clear whether the Haiwee wash contained the types of dependable vegetation, water, and game animals that would make the area a destination for mobile Paleoindian populations. Sediment investigations have shown that Owens Lake last overflowed into the Haiwee wash sometime before 15,300 cal years B.P. or before the earliest evidence of humans in the area (Bacon et al. 2006). Without discharge from Owens Lake, the wash would have been fed only by runoff from the seasonal drainages to

© 2023 Kleinfelder



(1) Bettinger 1976, 1982; (2) Bettinger and Taylor 1974; Basgall and McGuire 1988; (3) Warren 1980, 1984; Warren and Crabtree 1986; (4) Sutton 1996; (5) Garfinkel et al. 1979a; McGuire and Garfinkel 1980.

TABLE 1: Chronological Sequences for the Owens Valley, Mojave Desert, and Southern Sierra Nevada

© 2023 Kleinfelder

the west of the project area. However, given the relatively high level of precipitation during the terminal Pleistocene, the wash may have received enough water to create a productive wetland environment.

3.2.2 Early Holocene

Lake Mohave Period (9500 to 6000 B.P.)
The people that lived in the western Mojave Desert and southwestern Great Basin were profoundly affected by environmental changes during the gradual Pleistocene–Holocene transition. Temperatures became warmer but remained cooler and moister than today, and the region became marked by shallow lakes and marshes that were biologically very productive, surrounded by desert vegetation typical of later time periods, especially white bursage and later creosote bush (Grayson 1993:199). Some low-elevation locales retained juniper and sagebrush habitats. By the early Holocene, warmer temperatures, reduced precipitation, and the eventual dehydration of the pluvial lakes likely led to irregularities in the distribution and abundance of resources (Sutton et al. 2007:237).

These climatic changes created the need for an increasingly diversified subsistence strategy, reflected in the archaeological materials associated with the Mojave period. Hallmark artifacts consist of Great Basin stemmed and concave-base projectile points and some highly formalized flake tools, such as scrapers, gravers, bifaces, and occasionally crescents. Unifacial, plano-convex cores, flake cores, and battered stone tools, as well as unshaped handstones and thin- or thick-slab millingstones, have been found in association with early land-use in the China Lake Basin (Basgall 2007:170). In many Early Holocene sites in the Mojave and Great Basin deserts these tools are manufactured of non-local materials, suggesting that they were produced by highly mobile populations. This, coupled with the relative lack of groundstone tools in most Early Holocene assemblages, has led to the commonly held assumption that Mojave period groups were characterized by low population density and a subsistence regime that focused on hunting. Not all archaeologists share this view, however—Eerkens et al. (2007) argue that Mojave period sites in the nearby Coso Basin show evidence of relatively dense populations that exploited a wide range of environments and were no more mobile than Middle or Late Holocene groups. Sutton et al. (2007:237) suggest that gradually drying pluvial lake basins were abandoned by prehistoric people during this period in favor of the eastern front of the Sierra Nevada, where a regular recharging of catchments created a rich patchwork of resources.

3.2.3 Middle Holocene

Little Lake Period (5950 to 3150 B.P.)
The Middle Holocene climate, although arid compared to the periods before and after, was still highly variable, with multiple oscillations between wetter and drier conditions occurring throughout. Although the lakes and marshes of the early Holocene receded during the early part of the period, streams and springs in the region may have still maintained water flow from nearby ranges, providing suitable water sources to sustain human activity, albeit at low densities (Aikens 1978; Basgall 2000; Jenkins and Warren 1984; Sutton 1996). Vegetation communities capable of supporting large game animals became limited to a few isolated areas. Settlement patterns adapted, shifting to upland settings where sources of water still existed (Sutton 1996).

The Little Lake period is marked by the appearance of Little Lake and Pinto series projectile points. These thick points with an indented or bifurcate base, robust basal ears, and weak shoulders were first defined

© 2023 Kleinfelder

by Elizabeth and William Campbell in 1935 in the Pinto Basin, approximately 200 miles southwest of Owens Lake (Campbell and Campbell 1935). Other similarly ancient point styles include varied side- and corner-notched forms such as Fish Slough Side-notched (Basgall et al. 1995) and "thick Elko" forms identified by Gilreath and Hildebrandt (1997). Other artifacts diagnostic of the period include large and small leaf-shaped bifaces, domed and heavy-keeled scrapers, numerous core and cobble tools, large metates and milling slabs, and shaped and unshaped handstones. Very small artifact assemblages and only occasional time-markers typify many middle Holocene sites (Basgall and Delacorte 2012:2–8). The best-known expression of the Little Lake period in the vicinity of the project area occurs at the Stahl Site, located on the northern end of Little Lake, approximately 12 miles south of the project area (Harrington 1957).

Many archaeologists interpret these diverse artifact assemblages as a response to the onset of drier conditions. The presence of both hunting tools and milling equipment appears to represent a move from the strict exploitation of high-ranked food items, such as large animals, to a more diversified subsistence strategy (Sutton et al. 2007:237; Warren and Crabtree 1986). The use and abundance of milling equipment, particularly prepared basins, notably increases, and thin slab pieces of non-local stone were used, with both features suggesting intensification of plant exploitation. Faunal remains continued to focus on large and small terrestrial game, with the addition of fish (Delacorte et al. 1995; Gilreath 1995:17).

The procurement of obsidian from lag quarry deposits in the Coso Volcanic Field, located 8.5 miles (13.5 kilometers [km]) southeast of the project area, began during the Lake Mohave period and extended through the Little Lake period. Quarry areas show evidence of core and early-stage biface production resulting in a wide variety of tool types, indicating "a rather generalized, opportunistic approach to the acquisition of obsidian" (Gilreath and Hildebrandt 1997:177).

3.2.4 Late Holocene

The climate of the prehistoric late Holocene approximates that of today, with cooler and moister conditions than the middle Holocene but drier than the early Holocene. Plant communities took on their modern distributions, but as in the middle Holocene, the climate was highly variable, and many lake levels fluctuated, at times dramatically, throughout the period. At least two major droughts likely occurred in the Sierras, at c. 1050 to 840 B.P. and 740 to 600 B.P., resulting in low lake levels throughout the western Great Basin (Stine 1994, 2003). These droughts were followed by a cooler and wetter period from 600 to 200 B.P., which raised Owens Lake to its second highest stand of the late Holocene (Cleland and Spaulding 1992; Stine 2003). Increases in population, trade, and social complexity accompanied the more favorable climate, and evidence of restricted seasonal movement and larger settlements appears early in this period (Bettinger 1999; Sutton et al. 2007).

Newberry Period (3150 to 1350 B.P.)
The Newberry period reveals that significant cultural change had occurred across east-central California, focused on shifting settlement-subsistence systems and resource intensification. The scant data marking the first 1,500 years of this period suggest that the middle Holocene adaptive pattern of small, highly mobile groups remained unchanged (Gilreath 1995). Newberry period settlements near Bishop (Bettinger et al. 1984) and near Lone Pine (Basgall and McGuire 1988) reveal lowland settlements defined by midden accumulations, diversified artifact and ecofact assemblages, and house structures used as seasonal base camps by multiple households (Basgall and Delacorte 2012:2-9). Relatively large seasonal residential bases

© 2023 Kleinfelder

at Rose Spring (CA-INY-372, immediately south of the project area; see discussion below), and Portuguese Bench (CA-INY-2284, at the northwestern edge of Rose Valley) are also associated with this period. Temporary camps have been documented in both lowland and upland contexts, typified by a narrow range of hunting or plant procurement activities. Wide-ranging mobility patterns are indicated by high obsidian material variability and the abundant use of exotic toolstone. Settlement shifts appear organized along a north–south axis that traversed the length of Great Basin valleys, including Owens Valley (Basgall and Delacorte 2012:2-9; see Basgall 1989; Basgall and McGuire 1988; Delacorte 1990, 1999; Delacorte et al. 1995), with logistical forays made to nearby mountain areas.

The Newberry period was characterized by dart-point size projectile points in notched or eared (Elko), concave base (Humboldt), and small-stemmed (Gypsum) forms. In addition to diagnostic projectile points, assemblages included leaf-shaped points, rectangular-based knives, flake scrapers, T-shaped drills, and, occasionally, large scraper planes, choppers, and hammerstones (Warren 1984:416).

The early Newberry (c. 3150–2000 B.P.) archaeological record derives primarily from sites situated with reference to water, including lakeside areas near Olancha (Byrd and Hale 2003) and streamside deposits along McGee Creek (Basgall et al. 2003). Associated cultural assemblages stem from smaller deposits, houses are rare or absent, and occupational intensity remains similar to that inferred for the middle Holocene (Basgall and Delacorte 2012:2-9).

The late Newberry period (c. 2000–1350 B.P.) marks the emergence of a logistically and well-organized adaptive pattern that included regularized use of long-term residential bases; smaller, serially reoccupied transient camps; communal hunting/butchering localities; quarry and stone working camps; and hunting and gathering stations (Basgall and Delacorte 2011, 2012; Basgall and McGuire 1988; Bettinger 1989, 1991; Delacorte 1990, 1991, 1999; Delacorte and McGuire 1993; Delacorte et al. 1995; Gilreath 1995; Yohe 1992; Zeanah and Leigh 2002). Evidence is present for the construction of elaborate hunting facilities, well-built houses, and caches of non-portable or specialized gear. Lithic resources focused on obsidian, to the near absence of earlier (early and middle Holocene) materials, such as microcrystalline, basalt, and rhyolite.

Settlement and subsistence data reveal that specialized task groups made short- and long-term logistical forays to procure food resources. Animal remains provide evidence of a broadening subsistence base, with an emphasis on small and large mammal and waterfowl. Plant resources remain an important resource, as evidenced by large quantities of well-fashioned milling equipment and paleobotanical remains, including pine nuts and other seeds.

The north-to-south orientation of the Newberry period settlement and subsistence pattern is underscored by toolstone sourcing data. Basgall and Delacorte (2011) demonstrated that Newberry site components located north of Lone Pine contained almost equal proportions of Long Valley and Coso obsidian and suggest that these quarries mark the general northern and southern extent of the annual round. Obsidian exploitation of the Coso Volcanic field remained confined to lag quarries for the first half of the Newberry period, but after approximately 2300 B.P., the economic importance of obsidian exchange networks expanded dramatically. Obsidian production shifted to the mining of primary, high-quality seams in a limited number of quarries. Large bifacial cores and early-stage bifaces were produced at the quarries, and further reduced to biface blanks and tool preforms at off-quarry biface production sites. These bifaces were traded heavily with neighboring groups, and ultimately ended up being used by groups throughout southern California, particularly in Los Angeles County, Ventura County, the Kern Plateau, and the southern Sierra Nevada mountains (Gilreath and Hildebrandt 1997).

© 2023 Kleinfelder

Haiwee Period (1350 to 650 B.P.)

Smaller Rose Spring and Eastgate series projectile points appear in the archaeological record by the onset of the Haiwee period at 1350 B.P., signaling with the introduction of the bow and arrow to the region (Yohe 1998). Despite a generally deteriorating climate, further population growth and territorial constriction occurred during this time. By the end of the Haiwee period, local groups "…operated within annual ranges so small they were made sedentary virtually by default" (Bettinger 1999:49). Biface types prevalent during the Newberry period were largely replaced by abundant simple flake tools (Gilreath 1995:18). Obsidian, derived from the nearest source, remained the principal toolstone. Groundstone tools reveal a similar trend toward more casual, unshaped artifacts. Collectively, these artifact data suggest a shift to more expediently manufactured tool kits that were less functionally diverse and dependable, implying that Haiwee period peoples were less mobile and foraged more intensively around one or a few locales, lessening the need for tool transport (Gilreath 1995:18). A decline in, and subsequent abandonment of, logistical hunting camps implies that most hunting and other resource procurement were conducted from a few relatively fixed settlements (Gilreath 1995:18).

Until recently, archaeologists working in the region have generally accepted Bettinger's (1977, 1989) argument that nucleated semi-permanent settlements were established on the valley floor at the onset of the Haiwee period, and that this settlement pattern persisted until ethnographic times (Steward 1938). Using these settlements as a base, local populations staged logistically organized forays into the Sierra foothills to exploit piñon nuts (*Pinus monophylla*) and other tree crops. Other researchers (Basgall and Delacorte 2011; Delacorte and Basgall 2004) argue that the settlement patterns of Haiwee populations were more flexible and locally mobile, and that the sites that appear to be semi-permanent villages in the archaeological record likely represent shorter-term camps that were used repeatedly. Either way, evidence for resource intensification is prevalent, complementing the pattern of increased settlement centralization. Also noted have been high-cost extractive and storage strategies for pine nuts, ricegrass, and other seeds, as well as selective hunting of certain small mammals. It is likely that this increased reliance on relatively labor-intensive resources was as much the result of changes in social organization (including a shift from band to household organization and increased privatization of resources) as it was to population pressure and resource depletion (Bettinger 2015; Eerkens 2009; Eerkens and Spurling 2008). Both the introduction of the bow and arrow and the adoption of logistical foraging strategies may correspond with the expansion of Numic-speaking groups, which many researchers believe emanated from southeastern California about 1000 B.P. (Bettinger and Baumhoff 1982; Grayson 1993).

The overall number of quarries mined at Coso shrank greatly during the Haiwee period, yet Coso obsidian was still commonly used in the outlying areas, suggesting that a limited number of groups enjoyed relatively exclusive access to obsidian quarries and exchange networks (Gilreath and Hildebrandt 1997). The presence of marine shell ornaments, coupled with the localized trading of finely crafted chert bifaces manufactured and distributed between groups in northern Owens, Deep Springs, and other valleys, suggests increasingly complex intra- and inter-regional interaction (Bettinger 1989; Delacorte 1988, 1999; Gilreath 1995:18).

Marana Period (650 B.P. to Contact)

During the Marana period (650 B.P. to contact), the stemmed arrow points of the Haiwee period were replaced with Desert Side-notched and Cottonwood series projectile points. Resource intensification and specialization are suggested by an increased variety of tool forms, the use of new technologies such as ceramics and the mortar and pestle, the use of extensive storage facilities, and increased diversity in archaeological site locations. Seasonal forays for animal hunting and vegetal procurement (e.g., pine nut,

© 2023 Kleinfelder

seed crops, and roots) occurred from specialized sites in specific habitat environments. Settlement systems included both seasonally occupied temporary camps and semi-permanent winter encampments, the latter sited with reference to fuel, water, multiple habitat types for foraging, and access to cached resources such as seeds, pine nuts, and other crops (Basgall and Delacorte 2012:10-9). Evidence for east–west travel has been noted, focused on trans-valley movement of both people and materials, possibly in response to periodic failures or local resource shortfalls (Basgall and Delacorte 2011, 2012:10-10).

Adaptive trends characterizing the late prehistoric record note the establishment of larger, more sedentary populations, and the continuing expansion of Numic speakers across the Great Basin (Bettinger and Baumhoff 1982). Between 1000 and 600 B.P., obsidian exports from the Coso Volcanic Field appear to have essentially ended (Gilreath and Hildebrandt 1997). These changes may be related partly to a series of droughts that began about 1,000 years ago and affected much of the area east of the Sierra Nevada range (Stine 1994).

3.3 ETHNOGRAPHIC CONTEXT

The APE is located within the traditional tribal territory of the Tataviam, a Takic-speaking group of the Uto-Aztecan stock. Tataviam jurisdiction encompasses northern Los Angeles County, eastern Ventura County, and southern Kern County, with lineages tracing specifically to areas in present-day Simi Valley, Santa Clarita, San Fernando, western Antelope Valley, and sections of the Angeles National Forest (Fatehi 2017).

Tataviam lineage-villages, autonomous and self-governing groups of individuals who share a common ancestor, may have settled in the Los Angeles area early as 450 CE (Fernandeño Tataviam Band of Mission Indians 2023). Lineage-villages were comprised of difficult cultures and dialects and held multiples names that reflected the local linguistic diversity (Fatehi 2017). Tataviam tribal members would practice exogamy and speak the dialect of neighboring villages to strengthen and maintain relationships (Fernandeño Tataviam Band of Mission Indians 2023). The Quechao lineage-village, situated in the foothills of the San Gabriel Mountain range, was the closest lineage-village in proximity to the APE (ibid).

Tataviam people were forcibly recruited to Mission San Fernando del Espa ñ a beginning in 1797, where they were collectively labeled as Fernandeños, a name retained to this day (Fernandeño Tataviam Band of Mission Indians 2023). Although the Spanish sought to dismantle traditional lineage-villages and assimilate Native Americans into Spanish government and culture, Tataviam people continued to operate in their independent lineage-village identities: contact with non-mission associated relatives was maintained; ceremonial, martial, and social relationships were practiced under Spanish-given names; festivals and religious events were held; and traditional languages were spoken (Fatehi 2017).

Mexico's independence from Spain initiated the dismantling of the California missions and proposed land-distribution efforts intended to support the Native Americans at Mission San Fernando. The 1827 Alta California Governor José M. Echeandia introduced a plan that included the establishment of a town for emancipated Native Americans from Mission San Fernando; however, this plan was unsuccessful (Fatehi 2017). The Secularization Act of 1834 allowed Fernandeños to obtain ex-mission land and organize electoral village governments, but the plan was eliminated in 1835 (ibid). In 1843, 40 Fernandeño headmen petitioned for one square league of land from the Alta California Governor Manuel Micheltorena. The land grants received included Rancho Cahuenga (Burbank), Rancho El Escorpion (Chatsworth), Rancho Encino (Encino), and Rancho Tujunga (Tujunga), amounting to over 18,000 acres

© 2023 Kleinfelder

(Fernandeño Tataviam Band of Mission Indians 2023; Fatehi 2017). By 1845, Governor Pio Pico ignored the secularization regulations of prohibiting the sale of Native American land to private individuals and rented the land of the 40 Fernandeño headmen to private interests (Fatehi 2017). In the following decades, Tataviam attempted to defend their land claims in court but were largely unsuccessful. Combined with the government-sanctioned genocide, smallpox epidemics, and encroaching settlers, lineage-village communities eventually became "homeless squatters" on their own traditional territory (ibid).

In the late 19th century, United States federal agents acknowledged and worked with a group of San Fernando Mission Indians to prevent the further eviction and dispossession of lands (Fatehi 2017). The federal government made no immediate actions, and lineage-village communities continued to assemble as a coalition of lineages and create a formal government into the 1940s. The name of "San Fernando Mission Indians" eventually became the Fernandeño Tataviam Band of Mission Indians, a contemporary confederation of tribal lineages recognized today by the Los Angeles County government as sovereign nation. The Fernandeño Tataviam Band of Mission Indians submitted a full petition for federal recognition to the United States Office of Federal Acknowledgment in 2009 and has not yet received federal recognition.

3.4 HISTORICAL CONTEXT

The historic occupation of the project vicinity can be divided into several settlement periods: the Mission Period (A.D. 1769–1830), the Rancho Period (ca. A.D. 1830–1865), and the American Period (ca. A.D. 1865–present).

3.4.1 Mission Period (1769–1830)

Recorded history in this part of southern California began in the late eighteenth century with the expedition of Gaspar de Portolá up the coast in 1769. The first mission in the region, Mission San Gabriel, was established in 1771 (Engelhardt 1927). The earliest recorded passage of a European through the mountain area occurred in 1772, when Spanish soldier Pedro Fages crossed the San Bernardino Valley from south to north and exited via Cajon Pass in pursuit of deserters from the presidio at San Diego (Bolton 1931). The expeditions of Juan Bautista de Anza in 1774 and 1776 skirted the southern portion of the region (Bolton 1930). In 1776, Father Francisco Garcés, led by Mojave guides, traversed the desert from the Colorado River to the coast (Garcés 1900:246, 1967:38). The route that Garcés followed became known as the Mojave Trail. Mojave groups regularly traveled along the trail between river and coast during the historical period and apparently in prehistoric times as well.

Details regarding the closing years of the Mission Period are lacking, although it is known that a rising discontent among the scattered groups of non-mission Indians all the way to the Colorado River precipitated a series of attacks on mission facilities late in 1834. The attacks on the missions could not have come at a better time for the Mexican government. Newly independent from Spain, Mexico enacted a decree of secularization in 1833, taking mission properties out of the hands of the Catholic Church and the Spanish Crown. In 1834, the decree was enforced in California, and the missions became the property of the civil authorities. The net result of secularization and native uprisings in the area was the abandonment of the asistencia at San Bernardino and the effective end of missionary activity in the San Bernardino Valley (Beattie and Beattie 1939:33).

© 2023 Kleinfelder

Antelope Valley was first visited by Europeans in 1772 by a small force of Spanish soldiers under the command of Pedro Fages (Lajoie 2008). Notable California explorers Francisco Garcés, Jedediah Smith, Kit Carson, and John C. Fremont, traversed the Antelope Valley, but their explorations resulted in little change to the region.

3.4.2 Rancho Period (1830–1865)

When Mexico gained its independence from Spain in 1821, Alta California became part of the new country. Approaches to church control changed as government control devolved to Mexico City and to the Mexican territorial and state governors. It had never been the intention of the Spanish and the successor Mexican government that the missions would remain as permanent entities controlling the economy of the frontier areas (Weber 1982). With independence, the Mexican government began a process of secularization of mission properties that concluded in 1833. Missions were turned into parish churches, and regional commissions were established to dispose of the properties and resettle the Indians affiliated with the missions. Mexican government policy was to give mission properties and other unclaimed land to prominent citizens who would be required to build homes and facilities and develop the properties.

Following the departure of the Franciscans, a period of legal and forcible maneuvering ensued during which influential individuals attempted to gain control of the various ranchos. The period of California history known as the Rancho Period began as a class of wealthy landowners known as “rancheros” controlled the state. They built large ranches based on cattle hide and tallow production. Over much of the nineteenth century, the Antelope Valley continued to receive only the occasional hunters, drawn by its legendary herds of antelopes after which the valley was named, and travelers. Don Alexander and Phineas Banning's first stage line between Los Angeles and northern California ran through the southern edge of the valley (Lajoie 2008).

3.4.3 American Period (1865–Present)

In 1850, California became part of the United States and Los Angeles County was established as one of the original 27 counties in California. Cities in the county developed at unprecedented rates, and eventually the County ranked as the most populous county in California (United States Census Bureau 2023).

Dr. Darwin French’s party discovered silver in the Coso Mountains in 1860, in the northern China Lake Complex and in the Slate Ranges soon after (WM 2023). Soon, additional silver discoveries were made in the Slate Ranges. Not long after that, the nearby mountains teemed with miners. Gold was first discovered in 1876 in Acton, but it was the discovery of gold at Tropico Hill in Rosamond by Ezra Hamilton and Charles Graves, the Valley’s first African American postmaster, that started serious mining in the region (WM 2023).

The Southern Pacific Railroad connecting Los Angeles and San Francisco sparked the most growth in the Antelope Valley in 1876. Southern Pacific established a route through the valley, with a stop-off in Lancaster. Taking advantage of its location on the first railroad line in southern California, in 1884 Moses Langley Wicks, a prominent real estate developer who was active in many parts of the state, laid out the

© 2023 Kleinfelder

townsite of Lancaster on 640 acres, which he had purchased from the Southern Pacific and the U.S. government in a series of rather muddled transactions, not uncommon among early deals involving railroad land grants (Lajoie 2008). At first, settlers set up homesteads close to the rail center, then later moved farther into outlying areas. In 1874 the Western Hotel, the oldest building in the valley, was built, and it is now a historical museum in Lancaster (WM 2023).

During the great southern California land boom of the 1880s, Lancaster prospered, thanks to the abundance of artesian water in the vicinity. Within a year of its founding, downtown Lancaster had three general stores, a hardware store, three saloons, and the Lancaster House, a hotel built by Wicks in 1884. By 1886, the Los Angeles Times hailed Lancaster as "the business center of the Antelope Valley" (Lajoie 2008).

Generous seasonal rainfalls in the early 1890s made the valley an attractive spot for agricultural production, especially wheat and barley. Eventually, alfalfa would become the region's primary crop in the next century, so much so that "alfalfa is king" became the slogan for the agricultural interests in the valley. Beginning in 1895, however, several years of continuous drought all but destroyed Lancaster and other settlements in the Antelope Valley and forced nearly all settlers to abandon their land and leave the parched region (Lajoie 2008).

Antelope Valley settlements recovered slowly after the turn of the century, spurred in part by the construction of the local stretch of the Los Angeles Aqueduct around 1905 (Gurba 2005). Despite the urban progress, the impact of the Great Depression was ever-present, and as the returns on farming and the alfalfa crops declined, many local residents turned to mining, which, along with new utility companies, the railroad, and grain milling, helped support Antelope Valley through a difficult time (Lajoie 2008).

The 1930s saw the arrival of the aerospace industry in Antelope Valley. The Air Force started testing operations at Muroc Dry Lake. During World War II many people arrived to work at Muroc Air Field and the Marine Auxiliary Training Base in Mojave (WM 2023). The experimental "X-plane" program was launched at the Muroc Field in 1946, and a year later Chuck Yeager, flying an X-1 aircraft, became the first pilot to break the sound barrier. The facility was renamed the Edwards Air Force Base in 1949, in honor of Glen Edwards, a test pilot who was killed in a crash the previous year (Lajoie 2008).

3.4.4 History of Neenach

The APE is located east of Neenach, California. Neenach was first founded in the late 19th century by Danish settlers from Wisconsin. The town was named after Neenah, Wisconsin, but was misspelled resulting in its current spelling (Los Angeles Times 1991).

© 2023 Kleinfelder

4 BACKGROUND RESEARCH

The methods and results of the records search and historical map review are described in detail below.

4.1 RECORD SEARCH

An in-person records search of the APE and a 0.5-mile buffer around the APE was conducted on February 6, 2023, by Kleinfelder Archaeologist Gregorio Pacheco at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The purpose of the record search was to identify if any prehistory and/or historic-period cultural resources and studies had been previously documented in the study area to better understand the archaeological sensitivity of the area.

The SCCIC records search indicated that no previously recorded cultural resources or cultural resources studies were identified within the APE. Two previously recorded cultural resources (Table 2) and two cultural resources studies were identified within a 0.5-mile radius of the APE (Table 3).

TABLE 2: Previously Recorded Cultural Resources within 0.5-mile of the APE

Primary Number (No.)	Age	Description
P-19-190643 CA-LAN-190643	1914 – Post 1945	A site that includes historic road segments (currently California Highway 138 / Lancaster Blvd., running between Bailey and Neenach Substations) historic concrete culverts ("1931"). Square rebar noted.
P-19-004414 CA-LAN-004414	1914 – Post 1945	A site that includes a historic road segment (currently Avenue D / California Highway 138, extending from Lancaster Road to Sierra highway)

TABLE 3: Previous Studies within 0.5-mile of the APE

Report No.	Date	Author	Title
LA-10648	2010	James Schmidt	Archaeological Letter Report: Bailey-Neenach-Westpack 66 kV; No W.O.: Emergency Fire Damaged Pole Replacement Project, Antelope Valley Area, Los Angeles County, California
LA-12504	2011	Natalie Lawson and Clint Helton	Cultural Resources Survey of Southern California Edison Transmission Line Between Bailey Substation and Neenach Substation, Los Angeles County, California

© 2023 Kleinfelder

4.2 HISTORICAL MAP REVIEW

Kleinfelder reviewed historical maps depicting features such as towns, roads, buildings, and creeks to provide additional information regarding the potential for the presence of historic-era cultural resources within the APE. Historic maps are available at several online repositories, in particular the USGS repository, the David Rumsey Map Collection, the U.S. Department of the Interior Bureau of Land Management General Land Office (GLO) Records, and Historical Aerials. No corresponding maps were available from Historical Aerials. The following sources were consulted during the historical map review:

- Township 8N, Range 16W, Section 13, San Bernadino Meridian (GLO 1856)
- Township 8N, Range 16W, Section 13, San Bernadino Meridian (GLO 1873)
- Township 8N, Range 16W, Section 13, San Bernadino Meridian (GLO 1902)
- Tejon, Calif. 1:250000 (USGS 1903, edited 1948)
- Manzana, Calif. 1:24000 (USGS 1933)
- California Division of Highways, Los Angeles County (Rumsey 1935)
- Manzana, Calif. 1:24000 (USGS 1938, edited 1951)
- Historic Aerials of APE (Historic Aerials 1948, 1952,1959, 1963, 1965, 1971)
- Neenach School, Calif. 1:24,000 (USGS 1965, edited 1966)

4.2.1 Historical Map Review Results

The following summarizes the historical maps reviewed for the Project.

- The 1856 GLO Plat does not show any buildings, structures, or other locations of previous historic activities within the APE. A road labeled “Road to Fort Tejon” is depicted approximately 1.3 miles south of the APE.
- The 1873 GLO Plat (surveyed in 1855) does not show any buildings, structures, or other locations of previous historic activities noted within the APE. A road labeled “Road to Fort Tejon” is depicted approximately 1.3 miles south of the APE.
- The 1902 GLO Plat does not show any buildings, structures, or other locations of previous historic activities noted within vicinity of the APE.
- The 1903 USGS quadrangle shows no evidence of historically significant features. It shows 235th Street in its current alignment, but 230th Street is not present yet. In this map there is an unimproved road running diagonally from 235th Street to what is presently Highway 138, depicted as a light duty road.
- The 1933 USGS quadrangle shows 230th Street as an unimproved road of indetermined material that meets a light-duty road labeled “Avenue D” in the same alignment as modern Highway 138. The terrain is depicted as relatively flat at 2,825 feet above sea level.
- The 1935 Los Angeles County Map does not show any buildings, structures, or other locations of previous historic activities noted within the vicinity of the APE.
- The 1938 USGS quadrangle shows an unnamed intermittent stream located approximately 0.23 mile east of the APE. Highway 138, also labeled “Neenach Road” and “Avenue D,” and 230th Street are depicted in their current alignments. A series of structures, labeled “Gorrindo Ranch,” is located approximately 0.6 mile north of the APE.
- In the Historical Aerials (1948, 1952) no buildings, structures, or other locations of previous historic activities were noted within the APE.

© 2023 Kleinfelder

- The 1965 USGS quadrangle shows 230th Street as a light duty road and shows the two unimproved roads along the North and East boundaries of the APE. The map depicts two unlabeled buildings south of the Southern boundary of the APE.
- In the Historical Aerials (1959, 1963, 1965, 1971) there are two structures just outside of the southwest corner of the APE in progress until 1965, likely completed then. No other buildings, structures, or other locations of previous historic activities were noted within the APE.

© 2023 Kleinfelder

5 FIELD METHODS AND RESULTS

On February 21, 2023, Kleinfelder archaeologist David Sosa, M.A., RPA completed a pedestrian survey of the APE using 15-meter-spaced transects. Close inspection was given to all exposed ground soils and cut banks for the presence of archaeological materials. The APE was photographed using a high-resolution digital camera, and field observations were captured in written notes (Appendix E). Locational data were collected with Environmental Systems Research Institute Arc Collector application on Android. The APE was accessible by foot, and 100 percent of the APE was surveyed. Ground visibility was approximately 25 percent due to grass and shrub coverage. Disturbances from previous farming operations, grading, and modern materials were noted within the survey area.

5.1 Survey Results

One isolated chert flake was identified as a result of the survey. The isolate flake, 022123_DS_ISO1, is light tan in color, translucent in opacity, banded, and measures approximately 2.5 centimeters long, 1.5 centimeters wide, and 0.25 centimeter thick. A DPR 523 form was produced for this resource (Appendix F). The isolate lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated, singular event. Therefore, it is not eligible for the CRHR or NRHP under any criteria.

© 2023 Kleinfelder

6 NATIVE AMERICAN OUTREACH

Kleinfelder contacted the NAHC requesting a search of their Sacred Lands File (SLF) to identify if any sacred sites are located within the APE and to obtain a list of tribes affiliated with the region that may be able to provide additional information regarding any areas of tribal concern. An email response was received from NAHC on February 2, 2023, which indicated that the results of the SLF file search were negative. The NAHC provided a list of Native American tribes to contact who may have knowledge of cultural resources in the area. Kleinfelder distributed letters to the list of tribal contacts on February 10, 2023, requesting information on tribal cultural resources in or near the APE. A summary of the correspondence with the Native American tribes is provided below, and copies of correspondence are included in Appendix D.

Table 4. Native American Correspondence

Native American Contact Information	Date Certified Mail Sent	Date Follow-Up Email Sent	Responses/Comments
Fernandeno Tataviam Band of Mission Indians Rudy Ortega, Tribal President	02/10/2023	04/06/2023	The tribe requested an online intake form be completed on 4/17/2023. The online form was completed by Kleinfelder; The tribe responded that the APE is identified as having high buried site potential. Although there are no known Tribal Cultural Resources at the proposed Project site, there are several TCRs to the east and west of the site along West Avenue D. These are multicomponent sites indicative of habitation.
Morongo Band of Mission Indians Robert Martin, Chairperson	02/10/2023	04/06/2023	Emailed response on 05/08/23 stating the Project is not located within the boundaries of the ancestral territory or traditional use area of the Cahuilla and Serrano people.
Morongo Band of Mission Indians Ann Brierty, THPO	02/10/2023	04/06/2023	Emailed response on 05/08/23 stating the Project is not located within the boundaries of the ancestral territory or traditional use area of the Cahuilla and Serrano people.
San Fernando Band of Mission Indians Donna Yocum, Chairperson	02/10/2023	04/06/2023	No response received to date.
San Manuel Band of Mission Indians Jessica Mauck, Director of Cultural Resources	02/10/2023	N/A	Email response on 02/15/2023 stated the proposed project is not located near any known sensitive cultural resources.

© 2023 Kleinfelder

Serrano Nation of Mission Indians Mark Cochrane, Co-Chairperson	02/10/2023	04/06/2023	No response received to date.
Serrano Nation of Mission Indians Wayne Walker, Co-Chairperson	02/10/2023	04/06/2023	No response received to date.

© 2023 Kleinfelder

7 SENSITIVITY FOR BURIED RESOURCES

A desktop analysis of the APE was conducted to assess the potential for buried archaeological deposits. Kleinfelder has reviewed the APE for cultural resource sensitivity levels rated low, moderate, or high based on the results of the archival research, records search results, regional environmental factors, and historic and modern development.

7.1 SENSITIVITY FOR BURIED PREHISTORIC RESOURCES

The APE has a moderate level of disturbance from agricultural uses. No previously recorded prehistoric or tribal resources were identified during background research within the APE or vicinity, however, a single flake was identified during survey. The APE is also located in close proximiety to an intermittent drainage. The proximiety to a water source and presence of a prehistoric isolate within the APE indicates prehistoric activity it the area; Kleinfelder considers the APE to have a moderate sensitivity for buried prehistoric resources.

7.2 SENSITIVITY FOR BURIED HISTORIC PERIOD RESOURCES

Background research and a review of historic maps of the APE did not identify any buildings or structures within the APE. The only historical activity of note within the APE is the agricultural use noted on historic topographic maps (USGS 1958). No historic-era resources were identified the APE or the 0.5-mile radius. As such, Kleinfelder considers the APE to have a low sensitivity for buried historic-era resources.

© 2023 Kleinfelder

8 CONCLUSION

The cultural resource inventory of the APE included a review of the natural and cultural environment including the prehistory, ethnography, and history; a review of historic maps; record search results from the SCCIC; consultation with the NAHC; Native American correspondence; and a pedestrian survey. As a result of these efforts, one cultural resource was identified within the APE, a single isolated flake. The isolate lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated singular event and is thus recommended ineligible for inclusion in the NRHP and CRHR. Kleinfelder considers the APE to have a moderate sensitivity for buried prehistoric resources and a low sensitivity for buried historic-era cultural resources. No historic properties were identified within the APE during this study, as such Kleinfelder recommends a finding of no historic properties affected for this undertaking.

8.1 RECOMMENDATIONS

Kleinfelder recommends the following measures:

- A qualified archaeologist shall provide an archaeological tailboard to any construction crew working on site during ground disturbing activities.
- In the event archaeological resources are encountered during any ground-disturbing activities associated with the Project, then all ground-disturbing work at the location, plus within a reasonable buffer zone, must be immediately suspended. The approving County department shall be contacted, and a qualified professional archaeologist retained to analyze the significance of the find and formulate further mitigation (e.g., Project relocation, excavation plan, and protective cover) in consultation with culturally affiliated tribes or other descendant groups, where applicable.
- Pursuant to California Health and Safety Code §7050.5, if known or suspected Native American or other human remains are encountered, all ground-disturbing work must cease in the vicinity of the discovery, and the County Coroner contacted. The respectful treatment and disposition of remains and associated grave offerings shall be in accordance with PRC §5097.98. The applicant and successors in interest are ultimately responsible for ensuring compliance with this condition.
- In the event the Project design changes and ground disturbance is anticipated beyond the APE as it is currently defined, further surveys shall be conducted in those new areas to assess the presence of cultural resources. Any newly discovered or previously recorded cultural resources within the additional survey areas shall be recorded (or updated) on appropriate DPR 523-series forms. If eligible historic properties/historical resources are identified and avoidance of these resources is not feasible, then an evaluation and/or data recovery program shall be drafted and implemented.

© 2023 Kleinfelder

9 PREPARERES' QUALIFICATIONS

Kleinfelder Archaeologists Jessica Neal, Shelby Soares, and Alyssa Gelinas contributed to this report.

Ms. Neal has a Bachelor of Science degree in anthropology from Loyola University Chicago and a Master of Arts degree in Maritime Archaeology from the University of Southern Denmark. She is a registered professional archaeologist (RPA) (#17230) and a member of the Society for California Archaeology. She meets the Secretary of the Interior's Standards for prehistoric and historical archaeology. Ms. Neal has 9 years of experience in cultural resources management, including project management, personnel management, field survey, excavation and data recovery, laboratory analysis, collections management, and geographic information system applications in environmental planning. She has experience in preparation of archaeological research, built environment, and archaeological evaluations for inclusion in the NRHP and CRHR, and survey, testing, excavation, and monitoring reports pursuant to the requirements of CEQA, Section 106 of the NHPA, and the National Environmental Policy Act.

Ms. Soares has a Bachelor of Arts degree in evolutionary anthropology from the University of California Davis. She is a member of the Society for California Archaeology as well as a member of the Society for American Archaeology. Ms. Soares has worked for 1.5 years in cultural resources management with experience in vegetation management monitoring, field survey, field leading, excavation and data recovery, site identification, site recording, historical map reading/review, and report writing and editing.

Ms. Gelinas has a Bachelor of Arts degree in anthropology from the University of California Santa Cruz. She is a member of the Society for California Archaeology and the Santa Cruz Archaeological Society. Ms. Gelinas has 4.5 years of experience in cultural resources management. Her experience includes construction monitoring, collections management, Department of Parks and Recreation 523 forms preparation, excavation and data recovery, field survey, laboratory analysis, site identification and recording, and survey report preparation.

© 2023 Kleinfelder

10 REFERENCES

Aikens, C. Melvin

1978. Archaeology of the Great Basin. Annual Review of Anthropology 7:71-87.

Bacon, S. N., R. M. Burke, S. K. Pezzopane, and A. S. Jayko

2006. Last Glacial Maximum and Holocene Lake Levels of Owens Lake, Eastern California, USA. Quaternary Science Reviews 25:1264-1282.

Basgall, M. E.

1989. Obsidian Acquisition and Use in Prehistoric Central-Eastern California: A Preliminary Assessment. In Current Directions in California Obsidian Studies, edited by R. E. Hughes, pp. 111-126. Contributions of the University of California Archaeological Research Facility No. 48. Berkeley.

2000. The Structure of Archaeological Landscapes in the North-Central Mojave Desert. In Archaeological Passages: A Volume in Honor of Claude Nelson Warren, edited by J. S. Schneider, R. M. Yohe, II and J. K. Gardner, pp. 123-138. Western Center for Archaeology and Paleontology, Hemet, California.

2007. Prehistoric People in an Evolving Landscape: A Sample Survey of the Lake China Basin and its Implications for Paleoindian Land Use. Report on file, Epsilon Systems Solutions, Inc., San Diego, California.

Basgall, M. E., and K. R. McGuire

1988. The Archaeology of CA-INY-30, Prehistoric Culture Change in the Southern Owens Valley, California. (Project 09-Iny-395, P.M. 45.0/55.1; 09201-204200.) Prepared by Far Western Anthropological Research Group, Davis, California. Prepared for California Department of Transportation, District 9, Bishop, California.

Basgall, M. E., M. G. Delacorte, and M. C. Hall

1995. Fish Slough Side-notched Projectile Points: An Early Holocene Time Marker in the Western Great Basin. Current Research in the Pleistocene 12:1-4.

Basgall, M. E., and M. G. Delacorte

2011. Data Recovery Investigations at Six Archaeological Sites in South-Central Owens Valley, Inyo County, California. Archaeological Research Center, California State University, Sacramento. Submitted to California Department of Transportation, Bishop.

2012. Middle Archaic Cultural Adaptations in the Eastern Sierra Nevada: Data Recovery Excavations at CA-INY-1384/H, INY6249/H, INY-6250, and INY-6251/H. Archaeological Research Center, California State University, Sacramento. Submitted to California Department of Transportation, Bishop.

Basgall, M. E., M. G. Delacorte, and D. W. Zeanah

2003. An Archaeological Evaluation of Five Prehistoric Sites near Bishop, Inyo County, California (CA-INY-1384/H, INY-1386, INY-6249/H, INY-6250, and INY-6251/H): Results of the Ed

© 2023 Kleinfelder

Powers Rehabilitation Project. Report on file, California Department of Transportation, District 09, Bishop.

Beattie, George W., and Helen P. Beattie
1939. Heritage of the Valley: San Bernardino's First Century. San Pasqual Press, Pasadena, California.

Bettinger, R. L.
1977. Aboriginal Human Ecology in Owens Valley, Eastern California: Prehistoric Change in the Great Basin. American Antiquity 43:3–17.
1989. The Archaeology of Pinyon House, Two Eagles, and Crater Middens: Three Residential Sites in Owens Valley, California. Anthropological Papers of the American Museum of Natural History 67. New York.
1991. Aboriginal Occupations at High Altitude: Alpine Villages in the White Mountains of Eastern California. American Anthropologist 93:656-679.
1989.
1999. From Traveler to Processor: Regional Trajectories of Hunter-Gatherer Sedentism in the Inyo-Mono Region, California. In Fifty Years since Viru: Theoretical Advances and Contributions of Settlement Pattern Studies in the Americas, edited by B. R. Billman and G. M. Feinman, pp. 39-55. Smithsonian Institution Press, Washington, D.C.
2015. Orderly Anarchy: Sociopolitical Evolution in Aboriginal California. University of California Press, Berkeley.

Bettinger, Robert L., and Martin A. Baumhoff
1982. The Numic Spread: Great Basin Cultures in Competition. American Antiquity 47:485-503.

Bettinger, R.L., M.G. Delacorte, and K.R. McGuire
1984. Archaeological Excavations at the Partridge Ranch (CA-INY-2146), Inyo County, California. Far Western Anthropological Research Group, Inc., Davis, California. Report submitted to California Department of Transportation, Sacramento.

Bolton, Herbert E.
1930. California Expeditions. 5 vols. University of California Press, Berkeley.
1931. In the South San Joaquin Ahead of Garcés. California Historical Society Quarterly 10(3):211–219.

Bryan, A. L., and D. R. Tuohy
1999. Prehistory of the Great Basin/Snake River Plain to About 8,500 Years Ago. The Center for the Study of the First Americans, Corvallis.

Byrd, B. F., and M. Hale
2003. Lacustrine Lifestyles Along Owens Lake: NRHP Evaluation of 15 Prehistoric Sites for the Olancha/Cartago Four-Lane Project, US Route 395, Inyo County, California. Report on file, California Department of Transportation, District 09, Bishop.

© 2023 Kleinfelder

Campbell, Elizabeth W., and William H. Campbell
1935. The Pinto Basin Site: An Ancient Aboriginal Camping Ground in the California Desert. In Southwest Museum Papers, vol. 9, pp. 1-51. Southwest Museum, Los Angeles.

Cleland, J. H., and W. G. Spaulding
1992. An Alternative Perspective on Mojave Desert Prehistory. Society for California Archaeology Newsletter 26(6):1-6.

Davis, Emma Lou
1975. The "Exposed Archaeology" of China Lake, California. American Antiquity 40(1):39-53.

Delacorte, M. G.
1988. Room to Move: Environment, Demography and Adaptation in the Mono-Inyo Region of Eastern California. In Natural History of Eastern California and High-Altitude Research: White Mountain Research Station Symposium. Vol. 3, edited by C.A. Hall, Jr., V. Doyle-Jones, and B. Widawski, pp. 342-355. University of California, Los Angeles.
1990. Prehistory of Deep Springs Valley, Eastern California: Adaptive Variation in the Western Great Basin. Ph.D. dissertation, Department of Anthropology, University of California, Davis.
1991. Room to Move: Environment, Demography and Adaptation in the Mono-Inyo Region of Eastern California. In Natural History of Eastern California and High-Altitude Research. White Mountain Research Station Symposium Vol. 3, edited by C.A. Hall, Jr., V. Doyle-Jones, and B. Widawski, pp. 342-355. University of California, Los Angeles.
1999. The Changing Role of Riverine Environments in the Prehistory of the Central-Western Great Basin: Data Recovery Excavations at Six Prehistoric Sites in Owens Valley, California. Far Western Anthropological Research. Submitted to Caltrans, District 9, Bishop, California.

Delacorte, M. G., and K. R. McGuire
1993. Report of Archaeological Test Evaluations at Twenty-Three Sites in Owens Valley, California. Far Western Anthropological Research Group. Davis, California.

Delacorte, M. G., and M. E. Basgall
2004. Owens Valley Villages: Ethnographic and Late Prehistoric Reality. Paper presented at the 29th Biennial Great Basin Anthropological Conference, Sparks, Nevada.

Delacorte, M. G., M. C. Hall, and M. E. Basgall
1995. Final Report on the Evaluation of Twelve Archaeological Sites in the Southern Owens Valley, Inyo County, California. California Department of Transportation, Bishop.

Dillon, Brian D.
2002. California Palaeoindians: Lack of Evidence, or Evidence of a Lack? In Essays in California Archaeology: A Memorial to Franklin Fenenga, edited by W. J. Wallace and F. A. Riddell, pp. 111-128. University of California, Berkeley.

© 2023 Kleinfelder

Dorn, Ronald I., A. J. T. Jull, D. J. Donahue, T. W. Linick and L. J. Toolin
1990. Latest Pleistocene lake shore lines and glacial chronology in the Western Basin and Range Province, U.S.A.: insights from AMS radiocarbon dating of rock varnish and paleoclimatic implications. Palaeogeography, Palaeoclimatology, Palaeoecology 78:315-331.

Eerkens, J. W.
2009. Privatization of Resources and the Evolution of Prehistoric Leadership Strategies. In The Evolution of Leadership: Transitions in Decision Making from Small-Scale to Middle-Range Societies, edited by K. J. Vaughn, J. W. Eerkens, and J. Kantner, pp. 73-94. SAR Press, Santa Fe.

Eerkens, J. W., and A. M. Spurling
2008. Obsidian Acquisition and Exchange Networks: A Diachronic Perspective on Households in the Owens Valley. Journal of California and Great Basin Anthropology 28(2):111-126.

Eerkens, Jelmer W., Jeffrey S. Rosenthal, D. Craig Young, and Jay King
2007. Early Holocene Landscape Archaeology in the Coso Basin, Northwestern Mojave Desert, California. North American Archaeologist 28(2):87-112.

Engelhardt, Zephyrin
1927. San Gabriel Mission and the Beginnings of Los Angeles. Mission San Gabriel, San Gabriel, California.

Fatehi, Kimia
2017. Tribal Cultural Resources Management: A Case Study of the Fernandeño Tataviam Band of Mission Indians. Masters thesis, American Indian Studies, University of California, Los Angeles.

Fernandeño Tataviam Band of Mission Indians
2023. History. Accessed March 22, 2023 at https://www.tataviam-nsn.us/history/#00.

Garcés
1900. On the Trail of a Spanish Pioneer: The Diary and Itinerary of Francisco Garcés (Missionary Priest) in His Travels through Sonora, Arizona, and California, 1775–1776. 2 vols. Translated and edited by Elliott Coues. Francis P. Harper, New York.
1967. A Record of Travels in Arizona and California, 1775–1776. Translated by John Galvin. John Howell Books, Berkeley.

Gurba, Norma H.
2005 Images of America: Lancaster. Arcadia Publishing, Chicago and San Francisco.

.

Gilreath, A. J.
1995. Archaeological Evaluations of Thirteen Sites for the Ash Creek Project, Inyo County, California. Report submitted to the California Department of Transportation District 9, Bishop, California. Far Western Anthropological Research Group, Inc., Davis, California.

© 2023 Kleinfelder

Gilreath, Amy J., and William R. Hildebrandt
1997. Prehistoric Use of the Coso Volcanic Field 56. Contributions of the University of California Archaeological Research Facility, Berkeley.

Grayson, Donald K.
1993. The Desert's Past: A Natural History of the Great Basin. Smithsonian Institution Press, Washington, D.C.

Harrington, M. R.
1957. A Pinto Site at Little Lake, California. In Southwest Museum Papers. vol. 17. Southwest Museum, Los Angeles.

Historic Aerials Online
1948. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1952. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1959. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1963. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1965. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1971. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer

Jenkins, Dennis L., and Claude N. Warren
1984. Obsidian Hydration and the Pinto Chronology in the Mojave Desert. Journal of California and Great Basin Anthropology 6(1):44-60.

Justice, Noel D.
2002. Stone Age Spear and Arrow Points of California and the Great Basin.Indiana University Press, Bloomington.

Lajoie, Glenn
2008. Historic-Period Building Survey Lancaster Downtown Specific Plan City of Lancaster Los Angeles County, California.

Los Angeles Times
1991 L.A.’s Outback : Neenach : Named after a Wisconsin hometown--but misspelled.

Rumsey (David Rumsey Map Collection)
1935. Los Angeles County Map.

Steward, Julian H.
1938. Basin-Plateau Aboriginal Sociopolitical Groups. United States Government Printing Office, Washington, D.C.

Stine, Scott
1994. Extreme and Persistent Drought in California and Patagonia During Medieval Time. Nature 369(6481):546-549.

© 2023 Kleinfelder

2003. Environmental History of Late Holocene Owens Lake. In Lacustrine Lifestyles Along Owens Lake: NRHP Evaluation of 15 Prehistoric Sites for the Olancha/Cartago Four-Lane Project, US Route 395, Inyo County, California. Report on file, California Department of Transportation, District 09, Bishop.

Sutton, Mark Q.
1996. The Current Status of Archaeological Research in the Mojave Desert. Journal of California and Great Basin Anthropology 18(2):221-257.

Sutton, Mark Q., Mark E. Basgall, Jill K. Gardner and Mark W. Allen
2007. Advances in Understanding Mojave Desert Prehistory. In California Prehistory: Colonization, Culture, and Complexity, edited by T. L. Jones and K. A. Klar, pp. 229-245. Alta Mira, Lanham, Maryland.

United States Census Bureau
2023. Quickfacts. Population, Census, April 1, 2010. Accessed March 23, 2023 at https://www.census.gov/quickfacts/geo/chart/losangelescountycalifornia/PST045222.

United States Department of Agriculture (USDA)
2023. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed March 22, 2023 at https://websoilsurvey.sc.egov.usda.gov/app/.

United States Department of the Interior: Bureau of Land Management (GLO Plat)
1873. Township 15 North Range 12 West, Mount Diablo Meridian. GLO Plat.
1856. Township 15 North Range 12 West, Mount Diablo Meridian. GLO Plat.
1902. Township 15 North Range 12 West, Mount Diablo Meridian. GLO Plat.

United States Geological Survey (USGS)
1903. Tejon, Calif. 1:250,000 scale topographic quadrangle.
1933. Manzana, Calif. 1:24,000 scale topographic quadrangle.
1938. Manzana, Calif. 1:24,000 scale topographic quadrangle.
1965. Neenach School, Calif. 1:24,000 scale topographic quadrangle.

Warren, Claude N.
1984 The Desert Region. In California Archaeology. Pp. 339-430: Academic Press, Inc.

Warren, Claude N., and Robert H Crabtree
1986. Prehistory of the Southwest Area. In Handbook of North American Indians, Vol. 11: Great Basin, edited by W. C. Sturtevant, pp. 183-193. Smithsonian Institution, Washington, D.C.

Waste Management (WM)
2023 History of the Antelope Valley. Accessed April 2, 2023 at https://www.wm.com/location/california/antelope-valley/la-county/community/history.

© 2023 Kleinfelder

Yohe, Robert M., II

1992. A Clovis-Like Point from the Rose Spring Site (CA-INY-372). Journal of California and Great Basin Anthropology 14(2).

1998. The Introduction of the Bow and Arrow and Lithic Resource Use at Rose Spring (CaIny-372). Journal of California and Great Basin Anthropology 20(1):26-52.

Zeanah, D.W., and A. T. Leigh

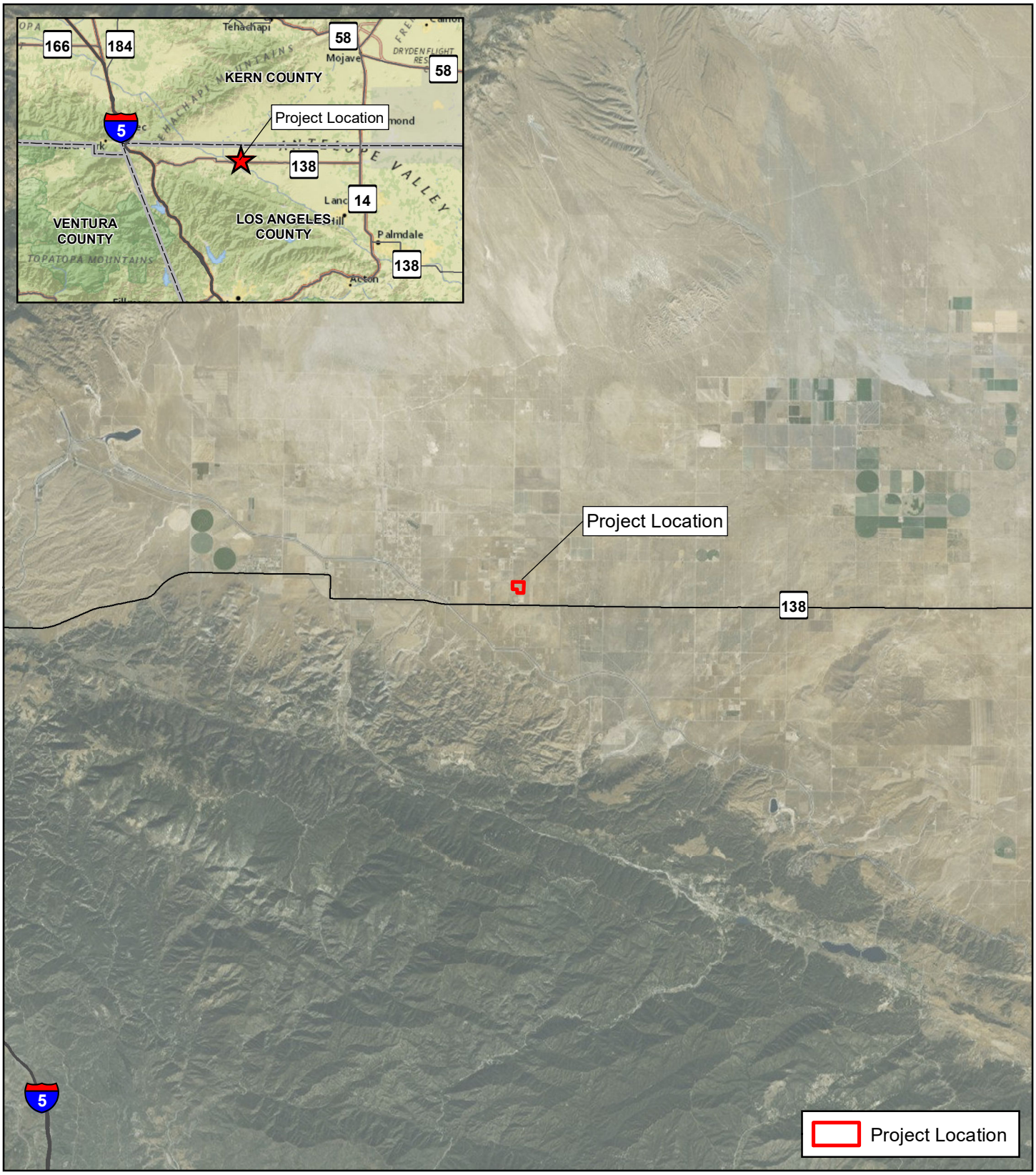
2002. Final Report on Phase II Investigations at 26 Archaeological Sites for the Aberdeen-Blackrock Four-Lane Project on Highway 395, Inyo County, California. Pacific Legacy, Inc., Cameron Park, California and Archaeological Research Center, California State University, Sacramento. Report submitted to California Department of Transportation, Central California Cultural Resources Branch, Fresno, California.

© 2023 Kleinfelder

APPENDIX A

Project Maps

© 2023 Kleinfelder





Source: Bing Maps

0 1.5 3 Miles

0 2.5 5 Kilometers

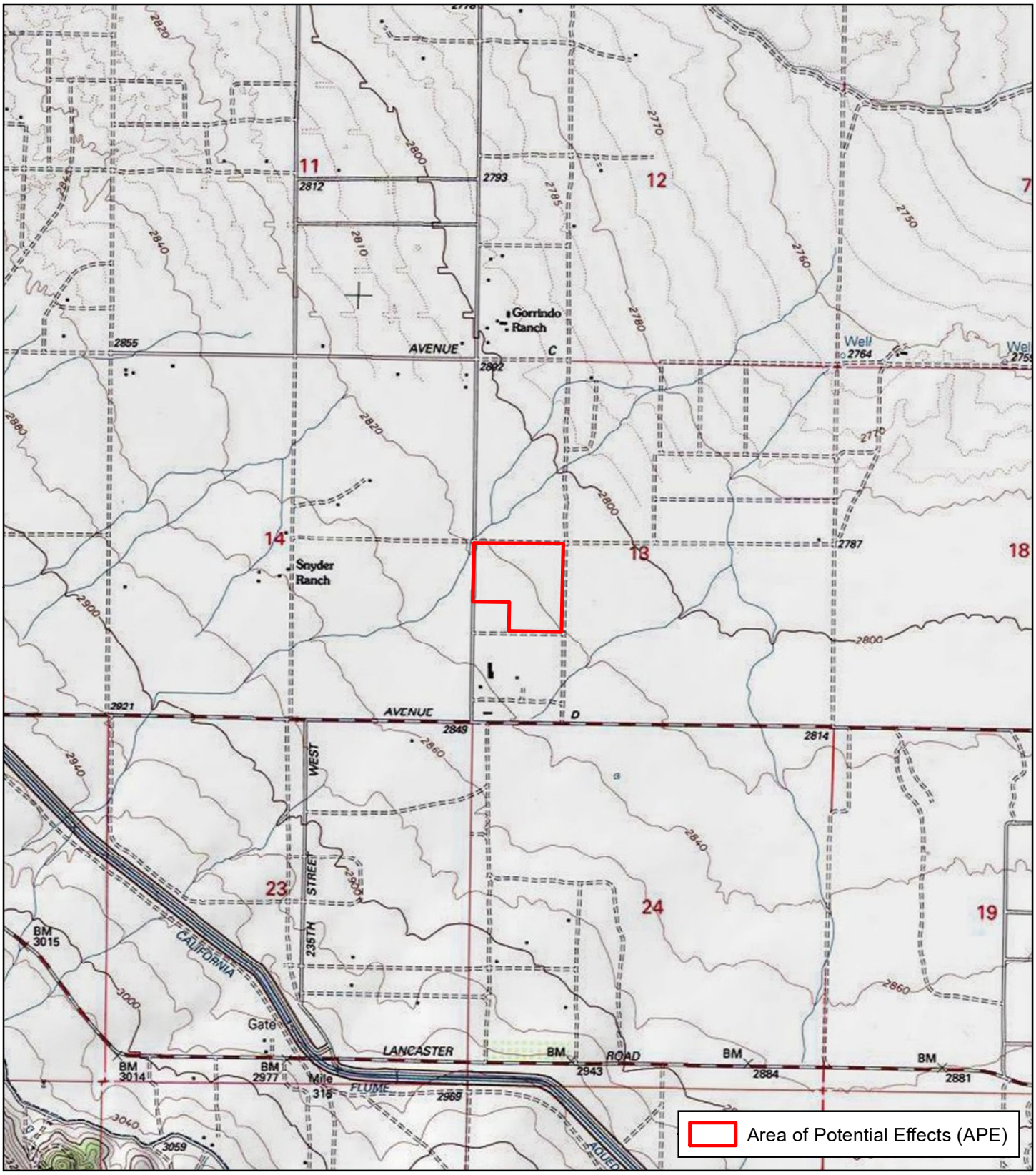
N

Scale 1:190,080
1 in = 3 miles

Regional Vicinity
RPCA 230th Street Solar Project
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

Created By: JHiatt Document Path: \\azrgisstorp03\GIS_Projects\Client\GANDA\Renewable_Properties\20234230_RCPA_230th_street\CULT_230thStreet_RegionalVicinity.mxd





Source: Bing Maps

0 1,000 2,000 Feet

0 300 600 Meters

N

Scale1:24,000
1 in = 2,000 feet

Area of Potential Effects (APE)
RPCA 230th Street Solar Project
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

Created By: JHiatt Document Path: \\azrgisstorp03\GIS_Projects\Client\GANDA\Renewable_Properties\20234230_RCPA_230th_street\CULT_230thStreet_ProjectArea.mxd





Source: Bing Maps

0 200 400 Feet

0 50 100 Meters

N

Scale 1:4,800
1 in = 400 feet

Survey Results
RPCA 230th Street Solar Project
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

APPENDIX B

Records Search Results

© 2023 Kleinfelder

Report Detail: LA-10648

RCPA 230th Street

Identifiers

Report No.: LA-10648
Other IDs:
Cross-refs:

Citation information

Author(s): Schmidt, James
Year: 2010
Title: Archaeological Letter Report: Bailey-Neenach-Westpack 66kV; W.O.: Emergency Fire Damaged Pole Replacement Project, Antelope Valley Area, Los Angeles County, California
Affliliation: Compass Rose Archaeological, Inc.
No. pages: 3
No. maps:
Attributes: Archaeological, Field study
Inventory size:
Disclosure: Not for publication
Collections: No

General notes

Associated resources

No. resources: 0
Has informals:

Location information

County(ies): Los Angeles
USGS quad(s): NEENACH SCHOOL
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	10/6/2010	agarcia
Last modified:	10/6/2010	agarcia

IC actions:
Record status:

Report Detail: LA-12504

RCPA 230th Street

Identifiers

Report No.: LA-12504
Other IDs:
Cross-refs:

Citation information

Author(s): Lawson, Natalie
Year: 2011
Title: Cultural Resources Survey of Southern California Edison Transmission Line Between Bailey Substation and Neenach Substation, Los Angeles County, California
Affliliation: CH2M Hill
No. pages: 28
No. maps:
Attributes: Archaeological, Field study
Inventory size:
Disclosure:
Collections:

General notes

Associated resources

Primary No.	*Trinomial*	*Name*
P-19-000990	CA-LAN-000990H	OLD RIDGE ROUTE
P-19-002105	CA-LAN-002105H	LOS ANGELES AQUEDUCT
P-19-004154	CA-LAN-004154H	East Branch of the California Aq
P-19-101046		IF-1
P-19-101047		IF-2
P-19-101048		IF-3
P-19-101049		IF-4
P-19-101050		Isolated Find, M-1
P-19-190643		Highway 138, Lancaster Blvd

No. resources: 9
Has informals:

Location information

County(ies): Los Angeles
USGS quad(s): FAIRMONT BUTTE, LA LIEBRE RANCH, LEBEC, NEENACH SCHOOL
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	3/28/2014	lnoyes
Last modified:	3/28/2014	lnoyes

IC actions:
Record status:

Resource Detail: P-19-000643

Identifying information

Primary No.: P-19-000643
Trinomial: CA-LAN-000643
Name: Van Norman #8
Other IDs:

Type	*Name*
Resource Name	Van Norman #8
Other	V.N. #8

Cross-refs: Is an element of district 19-175538

Attributes

Resource type: Site
Age: Prehistoric
Information base: Survey
Attribute codes: AP02 (Lithic scatter); AP15 (Habitation debris)
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

ADOE

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/28/1974	KELLY, GATES, BENTE,		
1/1/1991	R. Wlodarski, J Budd		Update Map extracted from 19-000642.

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
LA-00051	1974	Cultural Resources of Los Angeles Reservoir, City of Los Angeles	Northridge Archaeological Research Center, CSUN
LA-02517	1991	A Phase 1 Archaeological Study for Eight Areas Proposed for the New Los Angeles Police Training Academy, and Driver Training Facility, City of Los Angeles County, California	Historical, Environmental, Archaeological, Research, Team
LA-03289	1990	Mobil M-70 Pipeline Replacement Project Cultural Resource Survey Report for Mobil Corporation	Dames & Moore
LA-04089	1974	(Duplicate of LA-51) Cultural Resources of Los Angeles Reservoir, City of Los Angeles	Northridge Anthropological Research Center
LA-10756	2010	A Cultural Resources Overview and Preliminary Assessment of the Pacoima/Panorama City Redevelopment Plan Amendment/Expansion Project Area, Los Angeles County, California	McKenna, et al.
LA-11606	2011	Phase I Cultural Resources Assessment, Sylmar Ground Return Replacement Project, Los Angeles County, California	BonTerra Consulting
LA-11664	2011	Cultural Resource Records Search and Site Survey, AT&T Site LA0609 (44468) I-5 FWY/I-405 Fwy Interchange 12000 North Blucher Avenue, Granada Hills, Los Angeles County, California 91344	ACE Environmental
LA-11818	2012	Phase I Cultural Resources Assessment for the Van Norman Complex Water Quality Improvement Project City of Los Angeles, California	AECOM

Resource Detail: P-19-000643

Location information

County: Los Angeles
USGS quad(s): SAN FERNANDO
Address:
PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	5/1/2008	jay	
Last modified:	9/4/2019	sstjames	
IC actions:	*Date*	*User*	*Action taken*
	5/1/2008	jay	Appended records from Encodent database.

Record status: Verified

Resource Detail: P-19-004414

Identifying information

Primary No.: P-19-004414

Trinomial: CA-LAN-004414H

Name: HWY 138 Archaeological Site / Ave D, SRI-10016

Other IDs:

Type	*Name*
Resource Name	HWY 138 Archaeological Site / Ave D, SRI-10016
Other	Avenue D
Other	Highway 138
Other	SRI-10016

Cross-refs: Physically overlaps or intersects 19-000990
Physically overlaps or intersects 19-004616
Physically overlaps or intersects 19-004617
Physically overlaps or intersects 19-190643

Attributes

Resource type: Site

Age: Historic

Information base: Survey, Other

Attribute codes: AH04 (Privies/dumps/trash scatters); AH07 (Roads/trails/railroad grades)

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/17/2013	Teresa Terry	Statistical Research, Inc	
6/6/2014	W. Blumel	ECORP	Update
2/1/2016	Lauren Downs	AECOM	Update

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
LA-13257	2017	CULTURAL RESOURCES SURVEY REPORT FOR THE PROPOSED SOUTHERN CALIFORNIA EDISON COMPANY'S ANTELOPE-MAGUNDEN NO. 2 TRANSMISSION LINE RATING REMEDIATION PROJECT, KERN COUNTY, CALIFORNIA	AECOM

Location information

County: Los Angeles

USGS quad(s): FAIRMONT BUTTE, LA LIEBRE RANCH, LEBEC, LITTLE BUTTES, NEENACH SCHOOL, ROSAMOND

Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
Hwy 138	Lancaster		
Avenue D	Lancaster		

PLSS:

UTMs:

Management status

Resource Detail: P-19-004414

Database record metadata

	Date	User	
Entered:	4/10/2014	mgalaz	
Last modified:	7/26/2017	mgalaz	
IC actions:	*Date*	*User*	*Action taken*
	9/1/2015	mgalaz	Updated
	7/26/2017	mgalaz	Updated
Record status:	Verified		

APPENDIX C

Native American Heritage Commission Results

© 2023 Kleinfelder

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
[Vacant]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 2, 2023

Jessica Neal
Kleinfelder

Via Email to: jneal@kleinfelder.com

Re: 230th St Solar Project, Los Angeles County

Dear Ms. Neal:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
2/2/2023

Fernandeno Tataviam Band of Mission Indians
Rudy Ortega, Tribal President
1019 Second Street, Suite 1 — Tataviam
San Fernando, CA, 91340
Phone: (818) 837 - 0794
Fax: (818) 837-0796
thcp@tataviam-nsn.us

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Vanyume
Phone: (503) 539 - 0933 — Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

San Manuel Band of Mission Indians
Jessica Mauck, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 230th St Solar Project, Los Angeles County.

APPENDIX D

Native American Coordination

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Rudy Ortega, Tribal President
Fernandeno Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, CA, 91340
Phone: (818) 837 - 0794
Fax: (818) 837-0796
thcp@tataviam-nsn.us

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Ortega,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

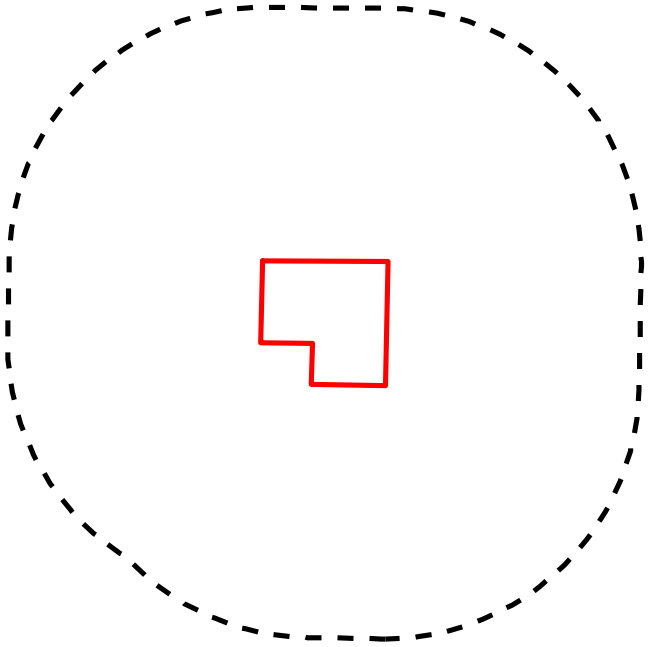
Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder



Half-mile Search Radius

Area of Potential Effects (APE)

Copyright © 2013 National Geographic Society, Esabed



USGS 7.5' Quad: NEENACH SCHOOL (1995)
Legal Description: T02N, R16W SEC 13

0 1,000 2,000 Feet
0 300 600 Meters

N

Scale 1:24,000
1 Inch = 2,000 Feet

Record Search
RCPA 230th Street
Los Angeles County, California



February 10, 2023
Kleinfelder Project No.: 20234230.001A

Ann Brierty, THPO
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Ms. Briety,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Robert Martin, Chairperson
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Martin,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Donna Yocum, Chairperson
San Fernando Band of Mission Indians
P.O. Box 221838
Newhall, CA, 91322
Phone: (503) 539 - 0933
Fax: (503) 574-3308
ddyocum@comcast.net

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mrs. Yocum,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Jessica Mauck, Director of Cultural Resources
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mrs. Mauck,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Mark Cochrane, Co-Chairperson
Serrano Nation of Mission Indians
PO Box 343
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Cochrane,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Wayne Walker, Co-Chairperson
Serrano Nation of Mission Indians
P. O. Box 343
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Walker,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6764 92

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6764 41

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Donna Yocum, Chairperson
San Fernando Band of Mission Indians
Po Box 221838
Newhall CA 91322-1838

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6933 69

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6933 26

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Jessica Mauck, Dir of Cultural Resources
San Manuel Band of Mission Indians
26569 Community Center Dr
Highland CA 92346-6712

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6346 14

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6346 56

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Rudy Ortega, President
Fernandeno Tataviam Band Mission Indians
1019 2nd St
San Fernando CA 91340-2916

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6412 30

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6412 72

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Mark Cochrane, Co-Chairperson
Serrano Nation of Mission Indians
Po Box 343
Patton CA 92369-0343

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6403 18

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6403 60

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Wayne Walker, Co-Chairperson
Serrano Nation of Mission Indians
Po Box 343
Patton CA 92369-0343

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6443 85

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6443 34

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Robert Martin, Chairperson
Morongo Band of Mission Indians
12700 Pumarra Rd
Banning CA 92220-6977

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6109 16

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6109 67

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Ann Brierty, THPO
Morongo Band of Mission Indians
12700 Pumarra Rd
Banning CA 92220-6977

Postmark Here

From: Mr. Bonnie Bryant
To: Jessica Neal
Cc: Ryan Nordness
Subject: Renewable Properties and RPCA Solar 7, LLC small-scale utility solar generating facility
Date: Wednesday, February 15, 2023 1:41:32 PM

External Email

Hello Ms. Neal,
Thank you for reaching out to the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians) concerning the proposed project area. YSMN appreciates the opportunity to review the project documentation received by the Cultural Resources Management Department on February 13, 2023. The proposed project is not located near any known sensitive cultural resources. Thank you again for your correspondence, if you have any additional questions or comments please reach out to me at your earliest convenience.

Respectfully,
Mr. Bonnie Bryant
Cultural Resource technician
San Manuel Band of Mission Indians
Bonnie.Bryant@sanmanuel-nsn.gov

Mr. Bonnie Bryant
Cultural Resources Tech
Bonnie.Bryant@sanmanuel-nsn.gov
O:(909) 864-8933 x 50-2033
M:(909) 633-6615
26569 Community Center Dr Highland, California 92346

From:	Tribal Historic Preservation Office
To:	Jessica Neal
Cc:	Ann Brierty; Laura Chatterton; Joan Schneider
Subject:	Kleinfelder 230th Street Solar Project
Date:	Monday, May 8, 2023 5:57:49 PM
Attachments:	Kleinfelder 230th Solar Project 8May23.pdf

External Email

Good evening Ms. Neal,

Thank you for notifying the MBMI about this project. MBMI encourages your consultation with tribes more closely associated with the lands upon which the project is located. Please see our attached letter.

Respectfully,

Laura Chatterton
Cultural Resource Specialist
Tribal Historic Preservation Office
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220
O: (951) 755.5256
M: (951) 663.7570

CONFIDENTIALITY: This e-mail may contain Privacy Act Data/Sensitive Data which is intended only for the use of the individual(s) to whom it is addressed. It may contain information that is privileged, confidential, or otherwise protected from disclosure under applicable laws. If you are not the intended recipient, you are hereby notified that any distribution or copy of this email is strictly prohibited.

The information contained in this communication is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, or distribution of this information is strictly prohibited and may be unlawful.

For your safety, the contents of this email have been scanned for viruses and malware.

TRIBAL HISTORIC PRESERVATION OFFICE

VIA ELECTRONIC MAIL

jneal@kleinfelder.com

Jessica Neal
Senior Archaeologist
Kleinfelder
2882 Prospect Park Drive Suite 200
Rancho Cordova CA 95603

MORONGO BAND OF MISSION INDIANS
A SOVEREIGN NATION

May 8, 2023

Re: 230th Street Solar Project Los Angeles County, CA

The Morongo Band of Mission Indians (Tribe/MBMI) Tribal Historic Preservation Office received your letter regarding the above referenced project on February 22, 2023. The proposed Project is not located within the boundaries of the ancestral territory or traditional use area of the Cahuilla and Serrano people of the Morongo Band of Mission Indians.

Thank you for notifying the MBMI about this project. MBMI encourages your consultation with tribes more closely associated with the lands upon which the project is located.

Respectfully,

Bernadette Ann Brierty

Bernadette Ann Brierty
Tribal Historic Preservation Officer
Morongo Band of Mission Indians

CC: Morongo THPO

From: Sarah Brunzell
To: Jessica Neal
Subject: Re: 230th St Solar Project
Date: Monday, April 17, 2023 1:19:14 PM
Attachments: image002.png
image003.png
Outlook-1sbthb0g.png

External Email

Good afternoon Ms. Neal,

Please submit your request via our mandatory digital project intake form. You will start at Section 1C:

https://www.tataviam-nsn.us/consultation-application/

Kind Regards,

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You.

Sarah Brunzell
Manager
Cultural Resources Management Division
Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, California 91340
Office: (818) 837-0794
Cell: 310-913-4838
Website: http://www.tataviam-nsn.us



"AcknowledgeRent.org" is a tangible way for the residents of northern Los Angeles County to make meaningful land acknowledgements through contributions to the Fernandeño Tataviam Band of Mission Indians. Through AcknowledgeRent, people who reside or work on our homelands can help undo the harm caused by the theft of a land base that causes ongoing ramifications for this community. Visit the link to learn more!

From: Jessica Neal <JNeal@kleinfelder.com>
Sent: Thursday, April 6, 2023 9:52 AM
Subject: 230th St Solar Project

[CAUTION] EXTERNAL Email. Exercise caution.

Good Morning,

I am following up regarding the 230th St Solar Project.

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

Jessica Neal, M.A., RPA
Cultural Resources Group Manager
Senior Archaeologist

2882 Prospect Park Dr., Suite 200
Rancho Cordova, California 95670
m| 618-771-6093

From:	Sarah Brunzell
To:	Jessica Neal
Subject:	Re: 230th St Solar Project
Date:	Friday, May 26, 2023 8:42:31 AM
Attachments:	image002.png image003.png Outlook-1sbthb0g.png Outlook-11vji3wk.png

External Email

Good afternoon Ms. Neal,

Thank you for completing the project intake form. An extensive geoarchaeological assessment which encompassed several cities, including Lancaster, was provided to the Fernandeño Tataviam Band of Mission Indians in 2017. The assessment identified a large portion of the city of Lancaster as having both high and extremely high buried site potential. The proposed Project located at 230th Street is within the area identified as having high buried site potential. Although there are no known Tribal Cultural Resources at the proposed Project site, there are several TCRs to the east and west of the site along West Avenue D. These are multi component sites indicative of habitation.

Kind Regards,

Please submit all proposed Projects via our Mandatory Digital Project Intake Form:
https://www.tataviam-nsn.us/project-intake/

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You.

Sarah Brunzell
Manager
Cultural Resources Management Division
Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians
1019 Second Street
San Fernando, California 91340
Office: (818) 837-0794
Website: http://www.tataviam-nsn.us

From: Sarah Brunzell <Sarah.Brunzell@tataviam-nsn.us>
Sent: Monday, April 17, 2023 1:19 PM
To: Jessica Neal <JNeal@kleinfelder.com>
Subject: Re: 230th St Solar Project

Good afternoon Ms. Neal,

Please submit your request via our mandatory digital project intake form. You will start at Section 1C:

https://www.tataviam-nsn.us/consultation-application/

Kind Regards,

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You.

Sarah Brunzell
Manager
Cultural Resources Management Division
Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, California 91340
Office: (818) 837-0794
Cell: 310-913-4838
Website: http://www.tataviam-nsn.us

"AcknowledgeRent.org" is a tangible way for the residents of northern Los Angeles County to make meaningful land acknowledgements through contributions to the Fernandeño Tataviam Band of Mission Indians. Through AcknowledgeRent, people who reside or work on our homelands can help undo the harm caused by the theft of a land base that causes ongoing ramifications for this community. Visit the link to learn more!

From: Jessica Neal <JNeal@kleinfelder.com>
Sent: Thursday, April 6, 2023 9:52 AM
Subject: 230th St Solar Project

[CAUTION] EXTERNAL Email. Exercise caution.

Good Morning,

I am following up regarding the 230th St Solar Project.

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

Jessica Neal, M.A., RPA
Cultural Resources Group Manager
Senior Archaeologist

APPENDIX E

Survey Photographs

© 2023 Kleinfelder



Overview of APE, facing west.



Overview of APE, facing north.



Overview of APE, facing east.



Overview of APE, facing south.

APPENDIX F

Department of Parks and Recreation Forms

© 2023 Kleinfelder

State of California - The Resources Agency DEPARTMENT OF PARKS AND RECREATION	Primary # HRI #
PRIMARY RECORD	Trinomial **NRHP Status Code**
Other Listings Review Code	Reviewer Date

 Resource Name or #: 0212123-DS-ISO1

P1. Other Identifier: N/A

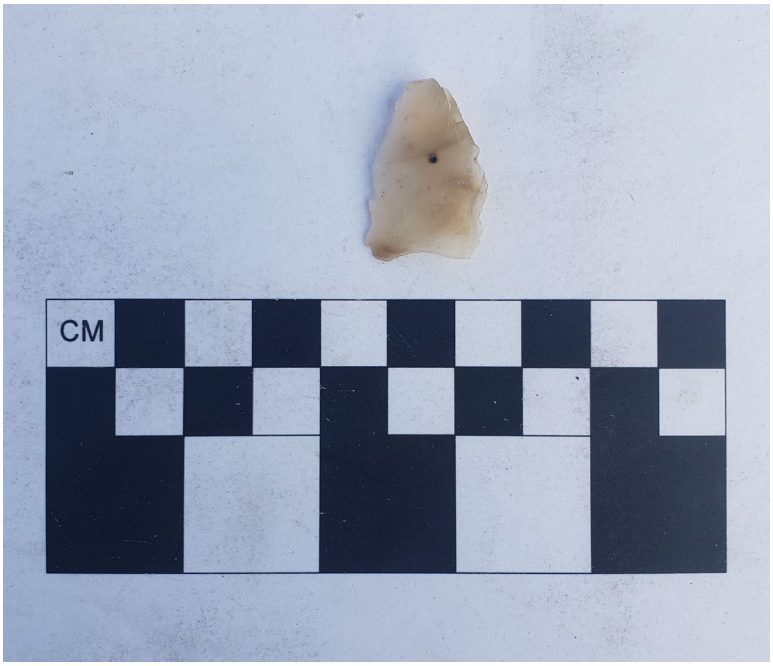
P2. Location: ☒ **Not for Publication** ☐ **Unrestricted**

- **a. County** Los Angeles
- **b. USGS 7.5' Quad** Neenach School **Date** 1995; **T**8N; **R1**6W; NW ¼ **of** SW ¼ **of Sec** 13; San Bernardino **B.M.**
- c. Address N/A City N/A Zip N/A
- d. UTM: Zone 11, 3849681mE/ 359560mN
- e. Other Locational Data: From Lancaster, California, drive west on State Route 138 for approximately 22 miles to the intersection of St Rt. 138 and 230th St. Turn right (north) onto 230th St and continue north approximately 0.4 miles. The isolate is located approximately 62 meters at 24 degrees from the northeast corner of APN 3278-025-001.

P3a. Description:
This resource consists of a single isolated chert flake identified within a fallowed agricultural field. The isolate is an off-white chert flake and measures 2.5cm x 1.5cm x 0.25cm thick. Soils consist of a light tan sandy loam, with small angular inclusions. Vegetation consists of Sahara mustard, rubber rabbitbrush, stork's bill, juniper, plantain, and Aleppo pine.

3b. Resource Attributes: AP16. Other

P4. Resources Present: □Building □Structure □Object☐Site □District □Element of District ☒ Other Isolate



P5b. Description of Photo: Detail view of isolate

P6. Date Constructed/Age and Source:
☐Historic ☒ Prehistoric ☐ Both

P7. Owner and Address:
Amilcar Ruben Badano and Debbie Badano
49560 230th ST W
Lancaster CA, 93536-9211

P8. Recorded by:
Kleinfelder
David Sosa
2882 Prospect Park, Suite 200
Rancho Cordova, CA 95670

P9. Date Recorded: 02/21/2023

P10. Survey Type: Intensive Pedestrian

P11. Report Citation: Neal, Jessica, Shelby Soares, and Alyssa Gelinas. 2023. Cultural Resources Identification Report for the 230th Street Solar Project, Los Angeles County, California

Attachments: □NONE ☒Location Map ☐Continuation Sheet □Building, Structure, and Object Record ☐Archaeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record ☐Artifact Record □Photograph Record ☐Other (List): Sketch Map

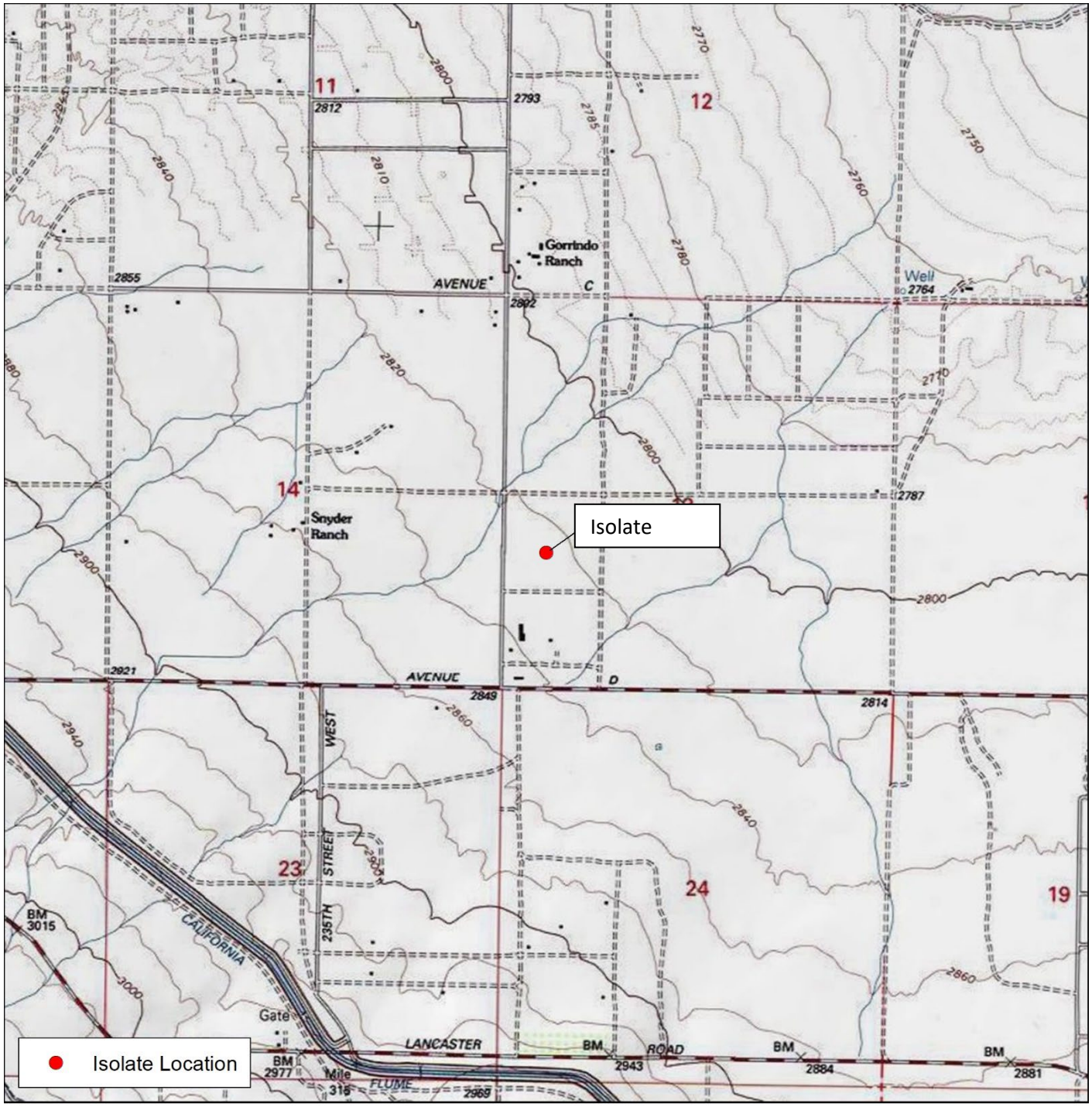
State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Resource Name or # 022123-DS-ISO1

Map Name: Neenach School, CA **Scale:** 1:24,000 **Date of map:**1995





USGS 7.5' Quad: NEENACH SCHOOL (1995)
Legal Description: T08N, R16W, SEC 13
NAD 1983 UTM Zone 11N

0 1,000 2,000 Feet

0 300 600 Meters

N

Scale 1:24,000
1 Inch = 2000 Feet

Resource Location
022123 DS ISO1
Los Angeles County, California

Appendix E

Energy Documentation

Kimley»Horn

Construction Fuel Consumption

On-Site Diesel[1] (off-road construction Equipment)	$MTCO_2e$	Gallons of Fuel[4]	Los Angeles County Fuel (Start of Construction)	Percent
Demolition	20	1,990		
Site Preparation	16	1,571		
Grading	41	4,013		
Construction/Installation	92	9,055		
Architectural Coating	0	0		
Total	169	16,629	532,570,627	0.0031%

Off-Site Diesel[1] (on-road construction trips)				
Demolition	20	1,990		
Site Preparation	15	1,443		
Grading	15	1,443		
Construction/Installation	35	3,489		
Architectural Coating	0	0		
Total	85	8,364	532,570,627	0.0016%

Off-Site Gasoline[2]				
Demolition	10	1,140		
Site Preparation	13	1,496		
Grading	13	1,496		
Construction/Installation	26	2,920		
Architectural Coating	0	0		
Total	62	7,051	3,536,229,368	0.0002%

Total Diesel Fuel		24,992	532,570,627	0.0047%
Total Gasoline Fuel		7,051	3,536,229,368	0.0002%
Total Construction Fuel	316	32,043		

Construction Phase[3]	Demolition			Site Preparation			Grading		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	25	20	10	15.94583268	14.64152368	13.17629854	40.73281347	15	13.17629854
Total	25	20	10	16	15	13	41	15	13

Construction Phase[3]	Construction/Installation, PV Vendor Trips[5]			Paving					
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	92	35	26	1		7			
Total	92	35	26	1	0	7	0	0	0

Notes:

[1] Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

[2] Fuel used for worker trips assumed to be gasoline.

[3] $MTCO_2e$ rates from CalEEMod (3.0 Construction Details).

[4] For CO2e emissions, see Chapter 13 (page 94); Conversion Ratios: Climate Registry, General Reporting Protocol, 2016.

[5] Construction/Installation vendor trips include PV panel deliveries.

Construction Water Energy

Water Energy Intensity[1]	2,701	kWh/MG
Total Construction Water[2]	4.24	million gallons
Construction Water Energy	11,452	kWh
Los Angeles County Annual Energy (GWh)	68,484,956,280	kWh
Percentage of County	0.000000	

Notes:

[1] Water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343.

[2] Total Construction Water based on applicant input.

Elecricity/Natural Gas Energy

	Mitigated Project Annual Energy	Los Angeles County Annual Energy[3]	Percentage Increase
Electricity (kWh/yr)	0	68,484,956,280	0.0000000%
Natural Gas (kBTU/yr)	0	0	NA
Natural Gas (therms/yr)	0	0	NA

Land Use	Electricity[1] (kWh/yr)		Natural Gas[2] (kBTU/yr)	
	Unmitigated	Mitigated	Unmitigated	Mitigated
	0	0	0	0
Total Energy	**0**	**0**	**0**	**0**

Notes:

[1] Electricity use per CalEEMod (5.3 Energy by Land Use).

[2] Natural Gas use per CalEEMod (5.2 Natural Gas by Land Use).

[3] County total energy values from California Energy Commission energy reports available through ecdms.energy.ca.gov. (year 2020)

Operational Water Energy

Mitigated Indoor	0.00	million gallons
Indoor Energy Intensity Factor[1]	2,701	kWh/MG
Mitigated Outdoor	0.10	million gallons
Outdoor Energy Intensity Factor[2]	3,472	kWh/MG
Operational Water Energy	347	kWh
Los Angeles County Annual Energy (GWh)	68,484,956,280	kWh
Percentage Increase	0.00000001	

Notes:

[1] Indoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply

[2] Outdoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supp

[3] Operational water use values per CalEEMod (7.2 Water by Land Use).

Operational Fuel

Vehicle Type	Annual VMT[1]	MPG[2]	Annual Fuel (Gallons)	Fuel Type	LA County Gallons[3]	RS Percent
Passenger Cars	0	21.6	0	Gas	3,536,229,368	0.00000%
Light/Medium Trucks	0	17.2	0	Diesel	532,570,627	0.00000%
Heavy Trucks/Other	570	6.1	93	Diesel	532,570,627	0.00002%
Trucks Total			93		532,570,627	0.00002%
Total	396					

Notes:

[1] Total annual operational VMT based on mitigated annual VMT from CalEEMod (4.2 Trip Summary Information).

[2] Average fuel economy derived from Department of Transportation.

[3] Total annual county fuel per EMFAC 2021 model of projected operational fuel usage.

Appendix F

Geotechnical Engineering Investigation

Kimley»Horn

GEOTECHNICAL • ENVIRONMENTAL • GEOLOGY • MATERIALS TESTING & INSPECTION • FORENSIC • LABORATORY

SALEM
engineering group, inc.

GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED 4.99MW GROUND MOUNT SOLAR ARRAY
AND BESS STORAGE
SOUTHEAST CORNER OF 230TH STREET WEST
AND WEST AVENUE C 8
LANCASTER, CALIFORNIA

SALEM PROJECT NO. 3-223-1034
NOVEMBER 7, 2023

PREPARED FOR:

MR. BRIAN MADIGAN
RPCA SOLAR 12, LLC
44 MONTGOMERY STREET, M SUITE 3150
SAN FRANCISCO, CALIFORNIA 94104

PREPARED BY:

SALEM ENGINEERING GROUP, INC.
4729 W. JACQUELYN AVENUE
FRESNO, CA 93722
P: (559) 271-9700
F: (559) 275-0827

SALEM
engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Phone (559) 271-9700
Fax (559) 275-0827

November 7, 2023 Project No. 3-223-1034

Ms. Brian Madigan
RPCA Solar 12, LLC
44 Montgomery Street, Suite 3150
San Francisco, California 94104

Subject: **GEOTECHNICAL ENGINEERING INVESTIGATION**
PROPOSED 4.99 MW GROUND MOUNT SOLAR ARRAY
AND BESS STORAGE
SOUTHEAST CORNER OF 230TH STREET WEST AND WEST AVENUE C 8
LANCASTER, CALIFORNIA

Dear Mr. Madigan:

At your request and authorization, SALEM Engineering Group, Inc. (SALEM) has prepared this geotechnical engineering investigation report for the site of the proposed 4.99MW ground mounted 230th Street Solar Project (”Project”) solar array and BESS storage to be located at the subject site. The accompanying report presents our findings, conclusions, and recommendations regarding the geotechnical aspects of designing and constructing the project as presently proposed. In our opinion, the proposed project is feasible from a geotechnical viewpoint provided our recommendations are incorporated into the design and construction of the project.

We appreciate the opportunity to assist you with this project. Should you have questions regarding this report or need additional information, please contact the undersigned at (559) 271-9700.

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

Dean B. Ledgerwood II, PE, PG, CEG
Geotechnical Manager
PE 94395 / PG 8725 / CEG 2613

TABLE OF CONTENTS

1. PURPOSE AND SCOPE 1
2. SITE LOCATION AND DESCRIPTION 1
3. PROJECT DESCRIPTION 2
4. FIELD EXPLORATION 2
   - 4.1. Drilling Test Borings 2
   - 4.2. Percolation Testing 3
5. LABORATORY TESTING 3
6. SOIL AND GROUNDWATER CONDITIONS 3
   - 6.1 Subsurface Conditions 3
   - 6.2 Results of Percolation Testing 4
   - 6.3 Groundwater 5
   - 6.4 Soil Corrosion Screening 5
   - 6.5 Thermal Conductivity Testing 6
7. GEOLOGIC SETTING 7
8. GEOLOGIC HAZARDS 7
   - 8.1 Faulting and Seismicity 7
   - 8.2 Surface Fault Rupture 8
   - 8.3 Ground Shaking 8
   - 8.4 Liquefaction 8
   - 8.5 Lateral Spreading 9
   - 8.6 Landslides 9
   - 8.7 Tsunamis and Seiches 9
9. CONCLUSIONS AND RECOMMENDATIONS 9
   - 9.1 General 9
   - 9.2 Surface Drainage 10
   - 9.3 Site Grading 10
   - 9.4 Soil and Excavation Characteristics 13
   - 9.5 Materials for Fill 13
   - 9.6 Seismic Design Criteria 14
   - 9.7 Small Diameter Driven Pile Foundations 15
   - 9.8 Water Tank Foundations 16
   - 9.9 Concrete Equipment Slabs-on-Grade (miscellaneous equipment and BESS pads) 17
   - 9.10 Temporary Excavations 18
   - 9.11 Underground Utilities 19
   - 9.12 Pavement Design 20
10. PLAN REVIEW, CONSTRUCTION OBSERVATION AND TESTING 21
   - 10.1 Plan and Specification Review 21
   - 10.2 Construction Observation and Testing Services 21

TABLE OF CONTENTS (cont.)

11. LIMITATIONS AND CHANGED CONDITIONS 22

FIGURES
Figure 1, Vicinity Map
Figure 2, Site Plan

APPENDIX A – FIELD INVESTIGATION
Figures A1 and A2; Logs of Borings B-1 and B-2

APPENDIX B – LABORATORY TESTING
Consolidation Tests
Direct Shear Tests
Gradation Curves
Atterberg Limits
Expansion Index
Corrosivity Test Results; Soluble Sulfate, Chloride, and pH
Soil Resistivity Test Result

APPENDIX C – EARTHWORK AND PAVEMENT SPECIFICATIONS

SALEM engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Phone (559) 271-9700
Fax (559) 275-0827

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED 4.99 MW GROUND MOUNT SOLAR ARRAY AND BESS STORAGE
SOUTHEAST CORNER OF 230TH STREET WEST AND WEST AVENUE C 8
LANCASTER, CALIFORNIA

1. PURPOSE AND SCOPE

This report presents the results of our geotechnical engineering investigation for the site of the proposed 4.99 MW ground mount 230th Street Solar Project (”Project”) solar array and BESS storage to be located at the subject site near Lancaster, California as depicted on Figure 1, Vicinity Map.

SALEM Engineering Group, Inc. (SALEM) has completed this geotechnical engineering investigation with the purpose to observe and sample the subsurface conditions encountered at the site, and provide conclusions and recommendations relative to the geotechnical aspects of constructing the project as presently proposed. The recommendations presented herein are based on analysis of the data obtained during the investigation and our local experience with similar soil and geologic conditions.

If project details vary significantly from those described herein, SALEM should be contacted to determine the necessity for review and possible revision of this report.

If project details vary significantly from those described herein, SALEM Engineering Group, Inc. (SALEM) should be contacted to determine the necessity for review and possible revision of this report. Earthwork and Pavement Specifications are presented in Appendix C. If text of the report conflict with the specifications in Appendix C, the recommendations in the text of the report have precedence.

2. SITE LOCATION AND DESCRIPTION

The project site is located within a vacant area at latitude and longitude of 34.7818, -118.5369, southeast of the corner of 230th Street West and West Avenue C 8 near Lancaster, California.

The area of the proposed solar was currently vacant at the time of this investigation with sparse desert vegetation. Based on review of historical aerial imagery, the subject site appears to have been vacant since at least 1985.

The entire site is relatively flat with an elevations ranging from approximately 2,821 to 2,825 feet above mean sea level (AMSL) based on Google Earth Imagery.

3. PROJECT DESCRIPTION

We understand that the project includes the installation of a 4.99MW ground mount solar array in an area comprised of approximate 34.4 acres. In addition, it is our understanding that the project will include a battery energy storage system (BESS) and 10,000 gallon above ground water tank. The proposed water tank is anticipated to be supported on a concrete ring foundation and BESS will be supported on structural equipment slabs. The approximate limits of the solar array limits are shown on Site Plan Figure No. 2 at the end of this report.

Structural load information and other final details pertaining to the structures are unavailable. Construction will include equipment pads for inverters and associated equipment.

Based on previous similar projects, it is understood that the PV system structure will be supported on driven piles extending to approximate depths of 8 to 10 feet below existing grade. Foundation dead loads (DL) are light to moderate. A maximum deflection of 1 inch at ground level is considered in pile design.

A site grading plan was not available at the time of preparation of this report. In the event that changes occur in the nature or design of the project, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and the conclusions of our report are modified.

The site configuration and locations of proposed improvements are shown on the Site Plan, Figure 2.

4. FIELD EXPLORATION

4.1. Drilling Test Borings

Our field exploration consisted of site surface reconnaissance and subsurface exploration. On October 18, 2023, a total of fifteen (15) test borings were drilled throughout the planned solar development to depths ranging from 16.5 to 21.5 feet BSG. The locations of the test borings are shown on Figure No. 2, Site Plan. The test borings were drilled using a truck mounted CME 75 drill rig equipped with hollow stem augers.

The materials encountered in the test borings were visually classified in the field, and logs were recorded by a field engineer at that time. Visual classification of the materials encountered in the test borings was generally made in accordance with the Unified Soil Classification System (ASTM D2487). The boring location can be found on the Site Plan, attached at the end of this report.

A soil classification chart and key to sampling is presented on the Unified Soil Classification Chart, in Appendix "A." The Test Boring Log is presented in Appendix "A." The Boring Log includes the soil type, color, moisture content, dry density, and the applicable Unified Soil Classification System symbol. The location of the test boring was determined by measuring from features shown on the Site Plan, provided to us. Hence, accuracy can be implied only to the degree that this method warrants.

The actual boundaries between different soil types may be gradual and soil conditions may vary. For a more detailed description of the materials encountered, the Boring Log in Appendix "A" should be consulted. Subsurface soil samples were obtained by driving a Modified California sampler (MCS) and a Standard Penetration Test (SPT) sampler. Penetration resistance blow counts were obtained by dropping an automated 140-pound trip hammer through a 30-inch free fall to drive the sampler to a maximum depth of 18 inches. The number of blows required to drive the last 12 inches is recorded as Penetration Resistance (blows/foot) on the logs of the boring. In case very high penetration resistance is encountered, the number of blows recorded may be for less than 12 inches.

Soil samples were obtained from the test boring at the depths shown on the boring logs. The MCS samples were recovered and capped at both ends to preserve the samples at their natural moisture content; SPT samples were recovered and placed in a sealed bag to preserve their natural moisture content.

4.2. Percolation Testing

As requested, two (2) percolation tests was performed at the site within the upper 5 feet below site grade. It is our understanding that the results of the testing performed will be utilized by others for the proposed stormwater disposal system.

The percolation test was conducted using an approximately 6-5/8 inch diameter percolation borehole using hollow stem auger. Approximately 2 to 4 inches of gravel was placed in the bottom of the hole followed by a 3-inch diameter perforated pipe. The holes were pre-saturated prior to percolation testing. The findings of the percolation testing is summarized in Section 6.4 of this report. The approximate locations of the percolation tests performed are shown on Figure 2 included at the end of this report.

5. LABORATORY TESTING

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, shear strength, consolidation characteristics, expansion index, plasticity index, and gradation of the materials encountered.

In addition, chemical tests were performed to evaluate the corrosivity of the soils to buried concrete and metal; including soluble sulfate, chloride, pH, and soil resistivity. In addition, two (2) sets of thermal resistivity tests were performed on samples remolded to approximately 90 and 95 percent relative compaction. Details of the laboratory test program and the results of laboratory test are summarized in Appendix "B." This information, along with the field observations, was used to prepare the final boring logs in Appendix "A."

6. SOIL AND GROUNDWATER CONDITIONS

6.1 Subsurface Conditions

The subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the soils encountered included silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet below site grade.

A consolidation test performed on a near surface soil sample resulted in about 13 percent consolidation under a load of 16 kips per square foot. When wetted under a nominal load of 2 kips per square foot the sample exhibited about 2.5 percent collapse. Four (4) direct shear tests resulted in internal angles of friction of 44, 44 ,43, and 43 degrees with cohesion values of “no cohesion”, 90, 87, and 370 pounds per square foot cohesion value, respectively. Three (3) Atterberg limits tests on near surface soil samples resulted in plasticity indexes of 0, 8, and 9 with liquid limits values of 20, ,27 and 29, respectively. An expansion index test indicated the soils have very low expansion potential (EI=0).

An R-value test resulted in an R-value of 16.

Soil conditions described in the previous paragraphs are generalized. Therefore, the reader should consult exploratory boring logs included in Appendix A for soil type, color, moisture, consistency, and USCS classification of the materials encountered at specific locations and elevations.

6.2 Results of Percolation Testing

The infiltration rate summarized in this report was prepared based on the methodology summarized in County of Los Angeles County of Los Angeles Guidelines for Design, Investigation, and Reporting Low Impact Development Stormwater Infiltration, GS200.1 dated June 30, 2021. As allowed by GMED GS200.1, the infiltration rate was determined using the Boring Percolation Test Procedure, where the infiltration rate was determined based on the Reduction Factor formula included in the LA County GMED GS200.1 document.

Two (2) percolation tests (P-1 and P-2) were performed at the site within the upper 5 feet BSG. The percolation tests were presaturated and performed in general conformance with LA County GMED GS200.1 requirements. The approximate locations of the percolation tests are shown on the attached Site Plan, Figure 2. The boreholes were advanced to the depths shown on the percolation test worksheets. The holes were pre-saturated before percolation testing commenced. Percolation rates were measured by filling the test holes with clean water and measuring the water drops at a certain time interval.

Approximately 7.75-inch diameter hand auger boreholes were advanced to the depths as illustrated in the following table. Approximately 2 inches of gravel was placed in the bottom of the test boring followed by a 3-inch diameter perforated pipe. The annulus surrounding the perforated pipe was backfilled with gravel. The holes were pre- saturated a before percolation testing commenced. The stabilized percolation rates were converted to an estimated infiltration rate by dividing the averaged stabilized volumetric rate by total surface area of infiltration of the boring (per GMED GS200.1, Small Diameter Boring Infiltration Test Procedure). The factored infiltration rate was calculated using a reduction factor (RFt) of 2.. The results of the field percolation testing are included at the end of this report.

Location	Depth, BSG (feet)	Estimated Average Stabilized Unfactored Infiltration Rate (inches/hour)	Reduction Factor (RF_t)	Average Stabilized Factored Infiltration Rate, (inches/hour)*	Soil Type (USCS)
P-1	4.3	0.34	2	0.17	SM
P-2	4.5	0.27	2	0.14	SM

*** A reduction Factor (RFt) of 2 was selected for this site**

The estimated infiltration rate was prepared based on methodology specified in LA County GMED GS200.1 dated June 30, 2021. For proposed underground storm water disposal systems, an average factored infiltration rate of 0.16 inches per hour may be considered for design.

Variations in soil type and soil density across the infiltration area of the system can influence the infiltration rate. Due to the variable infiltration characteristics, SALEM should be contacted to perform confirmation double ring infiltration testing during construction.

6.3 Groundwater

The test borings were checked for the presence of groundwater during and after the excavation operations. Groundwater was not encountered during the time of our subsurface investigation.

Available groundwater depth records with the California Department of Water Resources (www.water.ca.gov./waterlibrary) indicate Well Number 347897N1185199W001, located approximately 0.5 miles north of the project site reported a historical high groundwater depths to be greater than 100 feet BSG between 1955 and 1963.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, localized pumping, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

6.4 Soil Corrosion Screening

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete and the soil. The 2019 Edition of ACI 318 (ACI 318) has established criteria for evaluation of sulfate and chloride levels and how they relate to cement reactivity with soil and/or water. A soil sample was obtained from the project site and was tested for the evaluation of the potential for concrete deterioration or steel corrosion due to attack by soil-borne soluble salts and soluble chloride. The water-soluble sulfate concentration in the saturation extract from two (2) soil samples were detected to be less than 50 and 150 mg/kg.

ACI 318 Tables 19.3.1.1 and 19.3.2.1 outline exposure categories, classes, and concrete requirements by exposure class. ACI 318 requirements for site concrete based upon soluble sulfate are summarized in Table 6.4 below.

TABLE 6.4
WATER SOLUBLE SULFATE EXPOSURE REQUIREMENTS

Boring/Depth BSG	Dissolved Sulfate (SO_4) in Soil % by Weight	Exposure Severity	Exposure Class	Maximum w/cm Ratio	Minimum Concrete Compressive Strength	Cementitious Materials Type (ASTM C150)
B-1 / 0-4	<0.005	negligible	S0	NA	2,500 psi	No Restrictions
B-7 /0-4-	0.015	negligible	S0	NA	2,500 psi	No Restrictions

The water-soluble chloride concentration detected in saturation extract from the soil samples tested were 53 and 112 mg/kg. In addition, testing performed on a near surface soils resulted in minimum resistivity values of 3,971 and 4,410 ohm-centimeters. Based on the results, these soils would be considered to have a “mildly corrosive” potential to buried metal objects (per National Association of Corrosion Engineers, Corrosion Severity Ratings). It is recommended that, at a minimum, applicable manufacturer’s recommendations for corrosion protection of buried metal pipe be closely followed.

6.5 Thermal Conductivity Testing

Thermal conductivity tests (ASTM D5334) were conducted on a set of near surface samples collected at depths of around 3 feet BSG. The samples were remolded to a dry density of about 90 and 95 percent of the maximum dry density determined in accordance with the standard proctor (ASTM D1557) and to in-situ dry density, then were tested for thermal resistivity at the saturated moisture content, 0 percent moisture, and four (4) intermediate moisture contents. The results of the thermal resistivity tests are provided in Table No. 6.5 below and included in Appendix B of this report**.**

TABLE 6.5
RESULTS OF THERMAL RESISTIVITY TESTING

Location	Depth, Feet BSG	Dry Density, PCF*	Moisture Content, %	Thermal Resistivity, ˚C-cm/W
B-4 (90% Relative Compaction)	1-4	113.9	0.0%	1.094
		116.4	2.4%	0.897
		119.0	4.7%	0.666
		120.7	7.4%	0.641
		125.4	9.7%	0.620
		120.8	12.7%	0.547
B-4 (95% Relative Compaction)	1-4	120.4	0.0%	2.345
		124.8	1.9%	1.456
		123.1	3.6%	0.730
		127.3	6.0%	0.582
		127.4	8.0%	0.549
		127.9	9.6%	0.576
B-13 (90% Relative Compaction)	1-4	114.0	0.0%	1.101
		118.0	2.6%	0.732
		118.0	5.5%	0.618
		120.1	8.1%	0.609
		121.7	9.4%	0.571
		117.5	12.1%	0.651
B-13 (95% Relative Compaction)	1-4	120.4	0.0%	2.576
		126.6	2.0%	1.402
		125.7	3.7%	0.669
		124.9	6.2%	0.656
		127.1	8.1%	0.536
		125.9	9.7%	0.639

7. GEOLOGIC SETTING

The subject site is located approximately 23 miles west of Lancaster, California, which is situated in the northern edge of Mojave Desert Province of California and lies in the Eastern California Shear Zone.

The project site is located in the northwest portion of the Mojave Desert Geomorphic province, which, in turn, is situated on the Mojave Block. The Mojave Block is a triangular fault block bound on the north by the Garlock Fault, on the southwest by the San Andreas Fault, and on the east by the Colorado River. The project site is underlain by recent age alluvium derived from local granitic rocks. The alluvium consists mainly of silts, sands, and gravels with minor amounts of clay.

Based on review of Geologic Map of the Neenach and Willow Springs 15 Minute Quadranges[1], the area the subject site is in an area mapped as surficial alluvial deposits (Qa).

8. GEOLOGIC HAZARDS

8.1 Faulting and Seismicity

Based on the proximity of several dominant active faults and seismogenic structures, as well as the historic seismic record, the area of the subject site is considered subject to relatively low seismicity.

The project area is not within an Alquist-Priolo Special Studies Zone and will not require a special site investigation by an Engineering Geologist. Based on our experience in the Bakersfield region, the soils on site are classified as Site Class D-Default in accordance with Chapter 16 of the California Building Code. The proposed structures are determined to be in Seismic Design Category D.

To determine the distance of known active faults within 100 miles of the site, we used the United States Geological Survey (USGS) web-based application *2008 National Seismic Hazard Maps - Fault Parameters*. Site latitude is 34.7818° North; site longitude is -118.5369 ° West. The ten closest active faults are summarized below in Table 8.1.

TABLE 8.1
REGIONAL FAULT SUMMARY

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
S. San Andreas;CC+BB+NM+SM+NSB +SSB+BG+CO	5.39	8.1
S. San Andreas;SM+NSB+SSB	6.44	7.6
Garlock;GE+GC+GW	11.89	7.7
San Gabriel	17.69	7.3
S. San Andreas;BB	20.17	7.1
Pleito	21.93	7.1
Holser, alt 1	24.24	6.8
Santa Ynez (East)	25.28	7.2
Northridge	27.12	6.9

[1] Dibblee, T.W. and Minch, J.A., 2008, Geologic map of the Neenach & Willow Springs 15 minute quadrangles, Kern & Los Angeles Counties, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-383, 1:62,500

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
San Cayetano	27.54	7.2

The faults tabulated above and numerous other faults in the region are sources of potential ground motion. However, earthquakes that might occur on other faults throughout California are also potential generators of significant ground motion and could subject the site to intense ground shaking.

8.2 Surface Fault Rupture

The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. The nearest potentially active faults identified by the CGS Interactive Fault Activity Map of California is the San Andreas fault located approximately 5 miles south of the site. No active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

8.3 Ground Shaking

Seismic coefficients and spectral response acceleration values were developed based on the 2022 California Building Code (CBC). The CBC methodology for determining design ground motion values is based on the Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps, which incorporate both probabilistic and deterministic seismic ground motion. Table 9.6.1 include design seismic coefficients and spectral response parameters, based on the 2022 California Building Code (CBC) for the project foundation design.

Based on the 2022 CBC and limited nature of this investigation, a Site Class D-Default was selected for the subject site. A table providing the recommended design acceleration parameters for the project site, based on a Site Class D designation, is included in section 9.6.1 of this report.

Based on Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps, the estimated design peak ground acceleration adjusted for site class effects (PGA_M) was determined to be 0.806g (based on both probabilistic and deterministic seismic ground motion).

8.4 Liquefaction

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile.

In general, the soils encountered included silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet below site grade.

Free groundwater was not encountered to the depth of exploration during this investigation. Based on available water well data, historic groundwater depths are greater than 100 feet below site grade

A 50 foot deep test boring for liquefaction analysis was not included as part of this investigation. Based on our experience in the Bakersfield area and the historic depth to groundwater (greater than 100 feet BSG), liquefaction/seismic settlement is not a concern to impact the site development.

8.5 Lateral Spreading

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat site topography, we judge the likelihood of lateral spreading to be low.

8.6 Landslides

There are no known landslides at the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

8.7 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a potentially significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 General

9.1.1 Based upon the data collected during this investigation, and from a geotechnical engineering standpoint, it is our opinion that the site is suitable for the proposed construction as planned, provided the recommendations contained in this report are incorporated into the project design and construction. Conclusions and recommendations provided in this report are based on our review of available literature, analysis of data obtained from our field exploration and laboratory testing program, and our understanding of the proposed development at this time.

The following recommendations were prepared based on the geotechnical engineering data obtained from the borings and laboratory testing conducted as part of this investigation. It is our understanding that pile load test data may be used to assess the capacities of the soil and the effects of soil-pile interaction. From a geotechnical engineering perspective, in-situ pile testing may be conducted and used as a basis for design, provided that the testing, design analysis and selection of safety factors are conducted in a rational method determined by the design engineer for the lightly loaded shallow piles supporting the PV systems.'

9.1.2 In general, the soils encountered included silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet below site grade. Groundwater was not encountered at the time of this investigation.

9.1.3 Based on the results of the laboratory testing performed, the soils encountered have moderate to high compressibility characteristics, moderate collapse potential, and very low expansion potential.

9.1.4 Laboratory tests indicate the near surface soils are "mildly corrosive" to buried metal objects and a "negligible" (Sulfate Class S0) potential for sulfate attack on concrete.

9.1.5 Based on the subsurface conditions at the site and the anticipated structural loading, the proposed solar panels and associated equipment slabs may be supported using foundations presented in this report.

9.1.6 Provided the site is graded in accordance with the recommendations of this report and foundations constructed as described herein, we estimate that total settlement due to static will be about 1 inch and corresponding differential settlement will about ½ inch between piles.

9.1.7 Based on the results of the laboratory testing performed and average in-place density of the upper soils encountered, a shrinkage factor of 10 percent was estimated for the site.

9.1.8 All references to relative compaction and optimum moisture content in this report are based on ASTM D1557 (latest edition).

9.1.9 SALEM Engineering Group, Inc. should be retained to review the project plans as they develop further, provide engineering consultation as-needed, and perform geotechnical observation and testing services during construction.

9.2 Surface Drainage

9.2.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change to important engineering properties. Proper drainage should be maintained at all times.

9.2.2 All site drainage should be collected and transferred away from improvements in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundations or retaining walls. Drainage should not be allowed to flow uncontrolled over any descending slope.

9.2.3 Positive site drainage should be provided away from structures, pavement, and the tops of slopes to swales or other controlled drainage structures. The construction pads should be fine graded such that water is not allowed to pond. Final soil grade should slope a minimum of 2 percent away from structures.

9.3 Site Grading

9.3.1 A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Geotechnical Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section as well as other portions of this report.

9.3.2 A pre-construction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer and geotechnical engineer in attendance.

9.3.3 Site grading activities shall include removal of all vegetation and demolition of surface obstructions not intended to be incorporated into final site design. In addition, underground buried structures and/or utility lines encountered during demolition and construction should be properly removed and the resulting excavations backfilled with Engineered Fill. After removal and demolition activities, it is recommended that disturbed soils be recompacted as engineered fill.

9.3.4 Site preparation should begin with removal of existing surface/subsurface structures, underground utilities (as required), any existing uncertified fill, and debris. Excavations or depressions resulting from site clearing operations, or other existing excavations or depressions, should be restored with Engineered Fill in accordance with the recommendations of this report.

9.3.5 Surface vegetation should be removed by stripping to a sufficient depth to remove organic-rich topsoil. The upper 4 to 6 inches of the soils containing, vegetation, roots and other objectionable organic matter encountered at the time of grading should be stripped and removed from the surface. Deeper stripping may be required in localized areas. The stripped vegetation, will not be suitable for use as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas or exported from the site.

9.3.6 Areas of proposed BESS equipment slabs should be over-excavated to a minimum of 12 inches below bottom of proposed equipment slabs, 12 inches below preconstruction site grades, or to the depth to remove undocumented fills (if any), whichever is greater. The resulting bottom of over excavation should be scarified to a depth of at least 12 inches, worked until uniform and free from large clods, moisture conditioned to slightly above optimum moisture, and compacted to a minimum of 92 percent of the maximum density. The horizontal limits of the over-excavation should extend throughout the equipment pad over-build zone, laterally to a minimum of 3 feet beyond the outer edges of the proposed footings.

Equipment slabs on grade should be supported on a minimum of 4 inches of Class 2 aggregate base over the depth of engineered fill recommended above. Deepened edges are recommended for equipment slabs to reduce the potential for moisture fluctuations under the slabs. The thickened edges should extend to at least as deep as the bottom of the aggregate base section recommended under the slab.

9.3.7 Following stripping, to provide uniform support for the proposed tank, it is recommended that over-excavation extend to at least 24 inches below preconstruction site grade, to 12 inches below bottom of proposed foundations, to the depth required to remove root/organic material, or to the depth required to remove any undocumented fills (if encountered), whichever is greater. The resulting bottom of over excavation should be scarified to a minimum depth of at least 12 inches, worked until uniform and free from large clods, moisture-conditioned to slightly above optimum moisture, and compacted to 92 percent of the maximum density. The horizontal limits of the over-excavation should extend throughout the tank limits and over-build zone, extending laterally to a minimum of 5 feet beyond the outer edges of the proposed footings.

9.3.8 Areas of unpaved access roads should be prepared by scarification of the upper 12 inches, moisture condition to slightly above optimum and compacted to a minimum of 95 percent relative compaction (ASTM D1557). Unpaved access roads should be capped with a minimum of 12 inches of Caltrans class 2 aggregate base material compacted to 95 percent relative compaction. To improve roadway stability and reduced required aggregate base section, the unpaved roadway may comprise of 6 inches

of Class 2 Aggregate base over a Tensar NX750 geogrid, or equivalent, over compacted subgrade prepared as recommended above.

9.3.9 Areas of proposed asphaltic concrete pavements should be over-excavated to a minimum of 1 foot below preconstruction site grade or 1 foot below the bottom of the proposed aggregate base section, whichever provides greater fill. The bottom of excavation should be scarified 12 inches, moisture conditioned to slightly above optimum and compacted to 92 percent relative compaction. Subgrade soils within the upper 12 inches below pavement areas should be compacted to 95 percent relative compaction. The horizontal limits of the over-excavation should extend throughout the pavement areas and laterally to a minimum of 3 feet beyond the outer edges of the proposed pavements.

9.3.10 An integral part of satisfactory fill placement is the stability of the placed lift of soil. If placed materials exhibit excessive instability as determined by a SALEM field representative, the lift will be considered unacceptable and shall be remedied prior to placement of additional fill material. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

9.3.11 The most effective site preparation alternatives will depend on site conditions prior to grading. We should evaluate site conditions and provide supplemental recommendations immediately prior to grading, if necessary.

9.3.12 We do not anticipate groundwater or seepage to adversely affect construction. Project site stabilization consisting of placement of aggregate base and protecting exposed soils during construction should be performed. If the construction schedule requires grading operations during the wet season, we can provide additional recommendations as conditions warrant.

9.3.13 Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material or placement of crushed rocks or aggregate base material; or mixing the soil with an approved lime or cement product.

The most common remedial measure of stabilizing the bottom of the excavation due to wet soil condition is to reduce the moisture of the soil to near the optimum moisture content by having the subgrade soils scarified and aerated or mixed with drier soils prior to compacting. However, the drying process may require an extended period of time and delay the construction operation. To expedite the stabilizing process, crushed rock may be utilized for stabilization provided this method is approved by the owner for the cost purpose.

If the use of crushed rock is considered, it is recommended that the upper soft and wet soils be replaced by 12 to 30 inches of ¾-inch to 1-inch crushed rocks. The thickness of the rock layer depends on the severity of the soil instability. The recommended 12 to 30 inches of crushed rock material will provide a stable platform. It is further recommended that lighter compaction equipment be utilized for compacting the crushed rock. All open graded crushed rock/gravel should be fully encapsulated with a geotextile fabric (such as Mirafi 140N) to minimize migration of soil particles into the voids of the crushed rock. Although it is not required, the use of geogrid (e.g. Tensar BX 1100, BX 1200 or TX 160) below the crushed rock will enhance stability and reduce the required thickness of crushed rock necessary for stabilization.

Our firm should be consulted prior to implementing remedial measures to provide appropriate recommendations.

9.4 Soil and Excavation Characteristics

9.4.1 Based on the soil conditions encountered in our borings, the onsite soils can be excavated with moderate effort using conventional excavation equipment.

9.4.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable Occupational Safety and Health Administration (OSHA) rules and regulations to maintain safety and maintain the stability of adjacent existing improvements. Temporary excavations are further discussed in a later Section of this report.

9.4.3 The upper soils within the project site are identified primarily as clays. These soils in their present condition possess low risk to the proposed construction in terms of possible post-construction settlement if no mitigation measures are employed.

9.4.3 The near surface soils identified as part of our investigation are, generally, damp to moist due to the absorption characteristics of the soil. Earthwork operations may encounter very moist unstable soils which may require removal to a stable bottom. Exposed native soils exposed as part of site grading operations shall not be allowed to dry out and should be kept continuously moist prior to placement of subsequent fill.

9.5 Materials for Fill

9.5.1 On-site soils are considered suitable for use as engineered fill, provided these soils do not contain deleterious matter, organic material, or rock material larger than 3 inches in maximum dimension.

9.5.2 Import soil intended for use as Non-Expansive Engineered Fill soil, shall be well-graded, slightly cohesive silty sand or sandy silt. This material should be approved by the Engineer prior to use and should typically possess the soil characteristics summarized below in Table 9.5.2.

TABLE 9.5.2
IMPORT NON-EXPANSIVE FILL REQUIREMENTS

Percent Passing 3-inch Sieve	100
Percent Passing No.4 Sieve	75-100
Percent Passing No 200 Sieve	15-40
Maximum Plasticity Index	15
Maximum Expansion Index (ASTM D4829)	15

Prior to importing the Contractor should demonstrate to the Owner that the proposed import meets the requirements for import fill specified in this report. In addition, the material should be verified by the Contractor that the soils do not contain any environmental contaminates as regulated by local, state, or federal agencies, as applicable

9.5.3 All Engineered Fill (including scarified ground surfaces and backfill) should be placed in lifts no thicker than will allow for adequate bonding and compaction (typically 6 to 8 inches in loose thickness).

9.5.4 On-Site Soils used as engineered fill soils should moisture conditioned to slightly above optimum moisture content and compacted to at least 92 percent relative compaction.

9.5.5 Import Non-expansive Engineered Fill, should be placed, moisture conditioned to slightly above optimum moisture content, and compacted to at least 92 percent relative compaction.

9.5.6 The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since they have complete control of the project site.

9.5.7 Environmental characteristics and corrosion potential of import soil materials should also be considered.

9.5.8 Proposed import materials should be sampled, tested, and approved by SALEM prior to its transportation to the site.

9.5.9 Aggregate base material should meet the requirements of a Caltrans Class 2 Aggregate Base. The aggregate base material should conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, ¾-inch or 1½-inches maximum size. The aggregate base material should be compacted to a minimum relative compaction of 95 percent based ASTM D1557. The aggregate base material should be spread in layers not exceeding 6 inches and each layer of aggregate material course should be tested and approved by the Soils Engineer prior to the placement of successive layers.

9.6 Seismic Design Criteria

9.6.1 For seismic design of the structures, and in accordance with the seismic provisions of the 2022 CBC, our recommended parameters are shown below. These parameters were determined using Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps by location website (https://seismicmaps.org/), in accordance with the 2022 CBC. The Site Class was determined based on the soils encountered during our field exploration.

TABLE 9.6.1
2022 CBC SEISMIC DESIGN PARAMETERS

Seismic Item	Symbol	Value	2016 ASCE 7 or 2022 CBC Reference
Site Coordinates (Datum = NAD 83)		34.7818 Lat -118.5369 Lon	
Site Class	--	D	ASCE 7-16 Table 20.3
Soil Profile Name	--	Stiff Soil	ASCE 7-16 Table 20.3
Risk Category	--	I/II	CBC Table 1604.5
Site Coefficient for PGA	F_{PGA}	1.100	ASCE 7-16 Table 11.8-1
Peak Ground Acceleration	PGA_M	0.806	ASCE 7-16 Equation 11.8-1

Seismic Item	Symbol	Value	2016 ASCE 7 or 2022 CBC Reference
(adjusted for Site Class effects)			
Seismic Design Category	SDC	D	ASCE 7-16 Table 11.6-1 & 2
Mapped Spectral Acceleration (Short period - 0.2 sec)	S_S	1.681 g	CBC Figure 1613.2.1(1)
Mapped Spectral Acceleration (1.0 sec. period)	S_1	0.695 g	CBC Figure 1613.2.1(3)
Site Class Modified Site Coefficient	F_a	1.000	CBC Table 1613.2.3(1)
Site Class Modified Site Coefficient	F_v	**1.700 ***	CBC Table 1613.2.3(2)
MCE Spectral Response Acceleration (Short period - 0.2 sec) $S_{MS} = F_a S_S$	S_{MS}	1.681 g	CBC Equation 16-20
MCE Spectral Response Acceleration (1.0 sec. period) $1.5*S_{M1} = 1.5*(F_v S_1)$	$1.5*S_{M1}$	**1.772 g***	ASCE 7-16 11.4-2/ Supplement 3
Design Spectral Response Acceleration $S_{DS}=⅔S_{MS}$ (short period - 0.2 sec)	S_{DS}	1.121 g	CBC Equation 16-22
Design Spectral Response Acceleration $S_{D1}=⅔S_{M1}$ (1.0 sec. period)	S_{D1}	**1.181 g***	CBC Equation 16-23
Short Period Transition Period (S_{D1}/S_{DS}), Seconds	T_S	1.054	ASCE 7-16, Section 11.4.6
Long Period Transition period (seconds)	T_L	12	ASCE 7-16, Figures 22-14 through 22-17

Note: * Values Fv, SM1, and SD1 determined per ASCE Table 11.4.2 for use in calculating TS only

These values should not be used in structural design. Site Specific Ground Motion Analysis was not included in the scope of this investigation. Per ASCE 11.4.8, Structures on Site Class D, with S_1 greater than or equal to 0.2 may require Site Specific Ground Motion Analysis. The value reported for S_{M1} includes a 50% increase in accordance with exceptions listed in ASCE 7-16 - Supplement 3. In the event a site specific ground motion analysis is required, SALEM should be contacted for these services.

9.6.2 Conformance to the criteria in the above table for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

9.7 Small Diameter Driven Pile Foundations

9.7.1 Solar arrays may be supported using driven steel piles (small diameter H-piles, C-Shape Piles, etc.). **Driven piles should have a minimum embedment depth of 6 feet BSG or the depth required by the structural engineer, whichever is greater.**

9.7.2 Piles should be embedded in undisturbed native soils. If disturbed soils are present from tree removal activities, these areas should be over-excavated and backfilled with engineered fill per the recommendations of section 9.3 of this report.

9.7.3 The allowable downward load capacity of the driven piles below 1-foot BSG, may be designed based on an allowable skin friction value of 170 pounds per square foot. End bearing should not be used for design. An end bearing of 3,000 pounds per square foot may be considered for design.

The effective area in calculating the pile capacity should be the outer perimeter dimensions of the pile section (e.g, for a W6 x 6 x 15, the effective side friction area should be 4 sides multiplied by 6" per foot of pile length embedded into the soil). An increase of one-third may be applied when using the alternate load combination in Section 1605.3.2 of the 2019 CBC that includes wind or earthquake loads.

9.7.4 Uplift loads can be resisted by piles using 60 percent of the allowable downward side friction plus the weight of the pile.

9.7.5 Total and differential static settlement of 1 inch and ½ inch in 30 feet or between piles, whichever is less, should be considered in design.

9.7.6 Passive resistance in the upper portion of the driven piles, to a depth of 1 foot, should be neglected in design. The driven piles may be designed for an allowable lateral capacity of 400 pounds per square foot per foot of depth below the lowest adjacent grade to a maximum of 4,000 pounds per square foot. The passive pressure for driven piles spaced at a minimum of three (3) pile diameters may be applied over a width equal to two (2) pile diameters. No other increases should be applied to the allowable passive pressure.

9.7.7 9.7.7 If desired, the piles may be designed using LPILE and the parameters presented in Table 9.7.7.

TABLE 9.7.7
LPILE PARAMETERS

Depth, Feet BSG	L-Pile Soil Type	Design N-Value	Effective Unit Weight (pcf)	Design Phi Angle, degrees	Static Modulus of Subgrade Reaction, K (pci)
1-20	Sand (Reese)	15	130	42	90

The upper 1 foot should be neglected in design

9.8 Water Tank Foundations

9.8.1 The site is suitable for use of conventional shallow ring wall foundations or mat foundations supported on engineered fill soils prepared in accordance with Section 9.3 of this report. The foundations should be designed and reinforced for the anticipated differential settlements. A structural engineer experienced in foundation design should recommend the thickness, design details and concrete specifications for the tank foundations based on: 1) a total static settlement of 1 inch at the center of the tank; 2) a settlement of ½ inch at the edge of the tank; and 3) a differential settlement of ½ inch from the center to the edge of the tank. These design settlements are based on the allowable bearing pressures given in Table 9.8.5.

9.8.2 Ring wall foundations should be continuous with a minimum width of 12 inches and extend to minimum depths of 18 inches below the lowest adjacent grade, or to the depth required for frost protection, whichever is greater.

9.8.3 Mat slabs should be underlain by at least 6 inches of Class 2 aggregate base and should extend to a depth of at least 15 inches below adjacent ground surface at the edges of the mat.

9.8.4 If a concrete slab is not used under the tank, the tank area (inside the ringwall foundation) should be underlain by a minimum of 6 inches of Class 2 aggregate base compacted to 95 percent relative compaction, over the depth of engineered fill recommended below foundations.

9.8.5 Ringwall foundations, sized as recommended above, may be designed for the maximum allowable soil bearing pressures shown in the table below.

TABLE 9.8.5
ALLOWABLE BEARING CAPACITY

Loading Condition	Allowable Bearing Pressure*
Ring Wall Foundation Dead-Plus-Live Load	3,000 psf
Tank Bottom/Mat Slab - Dead-Plus-Live Load	1,000 psf

- Allowable bearing values may be increased by 1/3 for seismic or wind conditions.

9.8.6 Resistance to lateral footing displacement can be computed using an allowable coefficient of friction factor of 0.42 acting between the base of foundations and the supporting engineered fill subgrade. Lateral resistance for footings can also be developed using an allowable equivalent fluid passive pressure of 450 pounds per cubic foot acting against the vertical footing faces. The upper 6 inches below adjacent site grade should be neglected for passive resistance. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. An increase of one-third is permitted when using the alternate load combination in Section 1605.3.2 of the 2022 CBC, that includes wind or earthquake loads.

9.8.7 Footing concrete should be placed into neat excavation. The footing bottoms shall be maintained free of loose and disturbed soil.

9.8.8 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom edge of the footing.

9.8.9 The foundation subgrade should be sprinkled with water as necessary to maintain a moist condition without significant shrinkage cracks as would be expected in any concrete placement. Prior to placing rebar reinforcement, foundation excavations should be evaluated by a representative of SALEM for appropriate support characteristics and moisture content. Moisture conditioning may be required for the materials exposed at footing bottom, particularly if foundation excavations are left open for an extended period.

9.9 Concrete Equipment Slabs-on-Grade (miscellaneous equipment and BESS pads)

9.9.1 Slab thickness and reinforcement should be determined by the structural engineer based on the anticipated loading.

9.9.2 Equipment slabs supported on a minimum of 4 inches of class 2 aggregate base over the depth of engineered fill prepared in accordance with the recommendations included in section 9.3 of this report may be designed based on an allowable bearing capacity of 1,500 pounds per square foot. A structural engineer should recommend the thickness and reinforcement details based on a total static settlement of 1 inch and ½ inch in 30 feet or across the diameter of the slab, whichever is less.

9.9.3 Equipment slabs should include a thickened edge extending to the bottom of the recommended aggregate base section.

9.9.4 The lateral resistance for equipment slab may be designed based on an allowable fluid passive pressure of 350 pounds per cubic foot. This value may be increased by 1/3 for wind and seismic loading. The bottom surface of concrete slabs may be designed based on an allowable coefficient of friction of 0.36.

9.9.5 Proper finishing and curing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

9.9.6 The moisture content of the subgrade soils should be verified to at least 1 percent above optimum prior to placement of the imported non-expansive engineered fill section.

9.10 Temporary Excavations

9.10.1 We anticipate that the majority of the sandy site soils will be classified as Cal-OSHA "Type C" soil when encountered in excavations during site development and construction. Excavation sloping, benching, the use of trench shields, and the placement of trench spoils should conform to the latest applicable Cal-OSHA standards. The contractor should have a Cal-OSHA-approved "competent person" onsite during excavation to evaluate trench conditions and make appropriate recommendations where necessary.

9.10.2 It is the contractor's responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements. All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load.

9.10.3 Temporary excavations and slope faces should be protected from rainfall and erosion. Surface runoff should be directed away from excavations and slopes.

9.10.4 Open, unbraced excavations in undisturbed soils should be made according to the slopes presented in Table 9.10.4 below.

TABLE 9.10.4
RECOMMENDED EXCAVATION SLOPES

Depth of Excavation (ft)	Slope (Horizontal : Vertical)
0-5	1:1
5-10	1½:1

10-15	2:1

9.10.5 If, due to space limitation, excavations near existing structures are performed in a vertical position, braced shorings or shields may be used for supporting vertical excavations. Therefore, in order to comply with the local and state safety regulations, a properly designed and installed shoring system would be required to accomplish planned excavations and installation. A Specialty Shoring Contractor should be responsible for the design and installation of such a shoring system during construction.

9.10.6 Braced shorings should be designed for a maximum pressure distribution of 20H, (where H is the depth of the excavation in feet). The foregoing does not include excess hydrostatic pressure or surcharge loading. Fifty percent of any surcharge load, such as construction equipment weight, should be added to the lateral load given herein. Equipment traffic should concurrently be limited to an area at least 3 feet from the shoring face or edge of the slope.

9.10.7 The excavation and shoring recommendations provided herein are based on soil characteristics derived from the borings within the area. Variations in soil conditions will likely be encountered during the excavations. SALEM should be afforded the opportunity to provide field review to evaluate the actual conditions and account for field condition variations not otherwise anticipated in the preparation of this recommendation. Slope height, slope inclination, or excavation depth should in no case exceed those specified in local, state, or federal safety regulation, (e.g. OSHA) standards for excavations, 29 CFR part 1926, or Assessor's regulations.

9.11 Underground Utilities

9.11.1 Underground utility trenches should be backfilled with properly compacted material. The material excavated from the trenches should be adequate for use as backfill provided it does not contain deleterious matter, vegetation or rock larger than 3 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 8 inches and compacted to at least 90 percent relative compaction at or above optimum moisture content. The upper 12 inches of trench backfill within asphalt or concrete paved areas shall be moisture conditioned to at or above optimum moisture content and compacted to at least 95 percent relative compaction.

9.11.2 Bedding and pipe zone backfill typically extends from the bottom of the trench excavations to approximately 12 inches above the crown of the pipe. Pipe bedding, haunches and initial fill extending to 1 foot above the pipe should consist of a clean well graded sand with 100 percent passing the #4 sieve, a maximum of 15 percent passing the #200 sieve, and a minimum sand equivalent of 20.

9.11.3 It is suggested that underground utilities crossing beneath new or existing structures be plugged at entry and exit locations to the new structures to prevent water migration. Trench plugs can consist of on-site clay soils, if available, or sand cement slurry. The trench plugs should extend 2 feet beyond each side of individual perimeter foundations.

9.11.4 The contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The contractor should use appropriate

equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

9.12 Pavement Design

9.12.1 During grading subgrade samples should be tested to verify the recommendations included in this report remain valid. The pavement design recommendations provided herein are based on the State of California Department of Transportation (CALTRANS) design manual. Based on the results of the R-value testing performed near surface samples and requirements of Caltrans Highway Design Manual, an R-value of 16 was selected for design.

9.12.2 The asphaltic concrete (flexible pavement) is based on a 20-year pavement life utilizing traffic indexes of ranging from 4.0 to 8.0. The Civil Engineer should select the appropriate pavement section based on the anticipated traffic loading. The following table shows the recommended pavement sections for various traffic indices.

TABLE 9.12.2
ASPHALT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Asphaltic Concrete, (inches)	Class 2 Aggregate Base, (inches)*	Compacted Subgrade, (inches)*
4.0	2.5	5.5	12.0
5.0	2.5	.0	12.0
6.0	3.0	11.5	12.0
7.0	4.0	12.5	12.0
8.0	4.5	15.5	12.0

95% compaction based on ASTM D1557 Test Method

9.12.3 The following recommendations are for Portland Cement Concrete pavement sections.

TABLE 9.12.3
PORTLAND CEMENT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Portland Cement Concrete, (inches)*	Class 2 Aggregate Base, (inches)**	Compacted Subgrade. (inches)**
4.0	6.0	4.0	12.0
5.0	6.0	4.0	12.0
6.0	6.0	4.0	12.0
7.0	6.5	4.0	12.0
8.0	6.5	4.0	12.0

**** Minimum Compressive Strength of 4,000 psi,***
***** 95% compaction based on ASTM D1557 Test Method***

9.12.4 Asphalt concrete should conform to Section 39 of Caltrans' latest Standard Specifications for ½ inch Hot Mix Asphalt (HMA) Type A. Asphaltic concrete pavements should be compacted in accordance with Caltrans Standard Specifications (current edition).

9.12.5 Excavations, depressions, or firm and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. Any buried structures encountered during construction should be properly removed and backfilled.

9.12.6 Buried structures encountered during construction should be properly removed/rerouted and the resulting excavations backfilled. It is suspected that demolition activities of the existing pavement will disturb the upper soils. After demolition activities, it is recommended that disturbed soils within pavement areas be removed and/or compacted as engineered fill.

9.12.7 An integral part of satisfactory fill placement is the stability of the placed lift of soil. Prior to placement of aggregate base, the subgrade soils should be proof-rolled by a loaded water truck (or equivalent) to verify no deflections of greater than ½ inch occur. If placed materials exhibit excessive instability as determined by a SALEM field representative, the lift will be considered unacceptable and should be remedied prior to placement of additional fill material. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

9.12.8 A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material.

10. PLAN REVIEW, CONSTRUCTION OBSERVATION AND TESTING

10.1 Plan and Specification Review

10.1.1 SALEM should review the project plans and specifications prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

10.2 Construction Observation and Testing Services

10.2.1 The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for others interpretation of our recommendations, and therefore the future performance of the project.

10.2.2 SALEM should be present at the site during site preparation to observe site clearing, preparation of exposed surfaces after clearing, and placement, treatment and compaction of fill material. SALEM's observations should be supplemented with periodic compaction tests to establish substantial conformance with these recommendations. Moisture content of footings and slab subgrade should be tested immediately prior to concrete placement.

10.2.3 SALEM should observe foundation excavations prior to placement of reinforcing steel or concrete to assess whether the actual bearing conditions are compatible with the conditions anticipated during the preparation of this report.

11. LIMITATIONS AND CHANGED CONDITIONS

The analyses and recommendations submitted in this report are based upon the data obtained from the borings excavated at the approximate locations shown on the Site Plan, Figure 2. The report does not reflect variations which may occur between borings. The nature and extent of such variations may not become evident until construction is initiated. If variations then appear during construction, a re-evaluation of the recommendations of this report will be necessary after performing on-site observations during the excavation period and noting the characteristics of such variations. The findings and recommendations presented in this report are valid as of the present and for the proposed construction.

If site conditions change due to natural processes or human intervention on the property or adjacent to the site, or changes occur in the nature or design of the project, or if there is a substantial time lapse between the submission of this report and the start of the work at the site, the conclusions and recommendations contained in our report will not be considered valid unless the changes are reviewed by SALEM and the conclusions of our report are modified or verified in writing. The validity of the recommendations contained in this report is also dependent upon an adequate testing and observations program during the construction phase. Our firm assumes no responsibility for construction compliance with the design concepts or recommendations unless we have been retained to perform the on-site testing and review during construction. SALEM has prepared this report for the exclusive use of the owner and design consultants.

SALEM does not practice in the field of corrosion engineering. It is recommended that a qualified corrosion engineer be consulted regarding protection of buried steel or ductile iron piping and conduit or, at a minimum, that manufacturer's recommendations for corrosion protection be closely followed. Further, a corrosion engineer may be needed to incorporate the necessary precautions to avoid premature corrosion of concrete slabs and foundations in direct contact with native soil. The importation of soil and or aggregate materials to the site should be screened to determine the potential for corrosion to concrete and buried metal piping. The report has been prepared in accordance with generally accepted geotechnical engineering practices in the area. No other warranties, either express or implied, are made as to the professional advice provided under the terms of our agreement and included in this report.

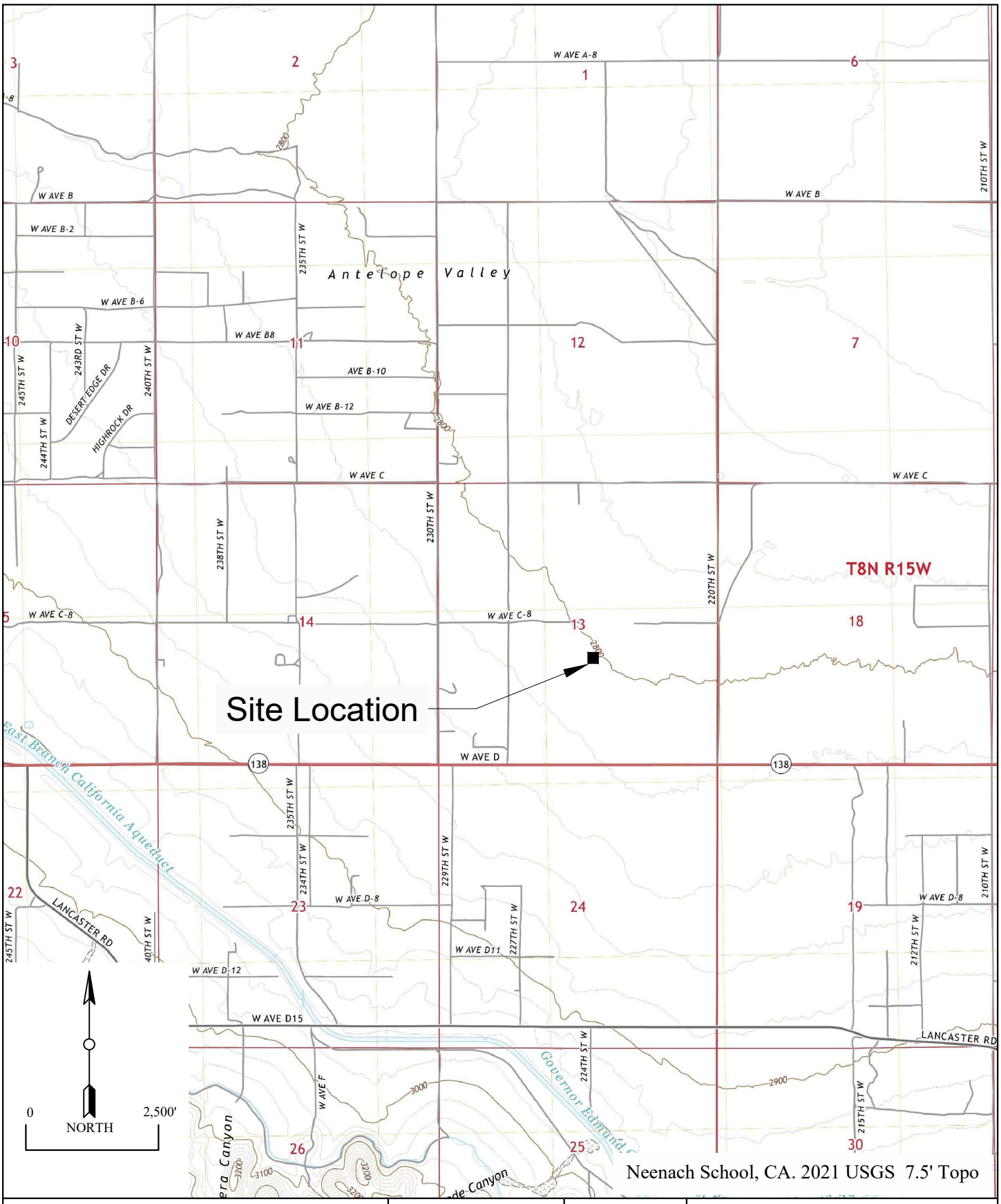
If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 271-9700.

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

Dean B. Ledgerwood II, PE, PG, CEG
Geotechnical Manager
PE 94395 / PG 8725 / CEG 2613

R. Sammy Salem, MS, PE, GE
Principal Managing Engineer
RCE 52762 / RGE 2549



VICINITY MAP	SCALE: 1" = 2500'	DATE: October 30, 2023	SALEM engineering group, inc.
GEOTECHNICAL ENGINEERING INVESTIGATION Proposed 4.99MW Ground Mount Solar Array & BESS Storage Southeast Corner of 230th St. West & West Avenue C 8 Lancaster, California	DRAWN BY: KM	APPROVED BY: DL	
	PROJECT NO. 3-223-1034	FIGURE NO. 1	



SITE PLAN	SCALE: 1" =200'	DATE: October 30, 2023
GEOTECHNICAL ENGINEERING INVESTIGATION Proposed 4.99MW Ground Mount Solar Array & BESS Storage Southeast Corner of 230th St. West & West Avenue C 8 Lancaster, California	DRAWN BY: KM	APPROVED BY: DL
	PROJECT NO. 3-223-1034	FIGURE NO. 2

SALEM
engineering group, inc.

APPENDIX

A

APPENDIX A
FIELD EXPLORATION

Fieldwork for our investigation was conducted on October 18, 2023 and included a site visit, subsurface exploration, and soil sampling. The locations of the exploratory borings are shown on the Site Plan, Figure 2. Boring logs for our exploration are presented in figures following the text in this appendix. Borings were located in the field using existing reference points. Therefore, actual boring locations may deviate slightly.

Our borings were drilled using a truck-mounted CME-75 drilling rig or hand tools. Sampling was accomplished by driving a 2-inch Standard Penetration Test (SPT) sampler and/or a 3-inch outside diameter Modified California Sampler (MCS) 18 inches into the soil. Penetration and/or Resistance tests were performed at selected depths. The resistance/N-Value obtained from driving was recorded based on the number of blows required to penetrate the last 12 inches. The driving energy was provided by an auto-trip hammer weighing 140 pounds, falling 30 inches. Relatively undisturbed MCS soil samples were obtained while performing this test. Bag samples of the disturbed soil were obtained from the SPT samples and auger cuttings. All samples were returned to our Fresno laboratory for evaluation. The test borings were backfilled with excavated soil upon completion of drilling and sampling.

Subsurface conditions encountered in the test borings were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing.

SALEM engineering group, inc.

Test Boring: B-1 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

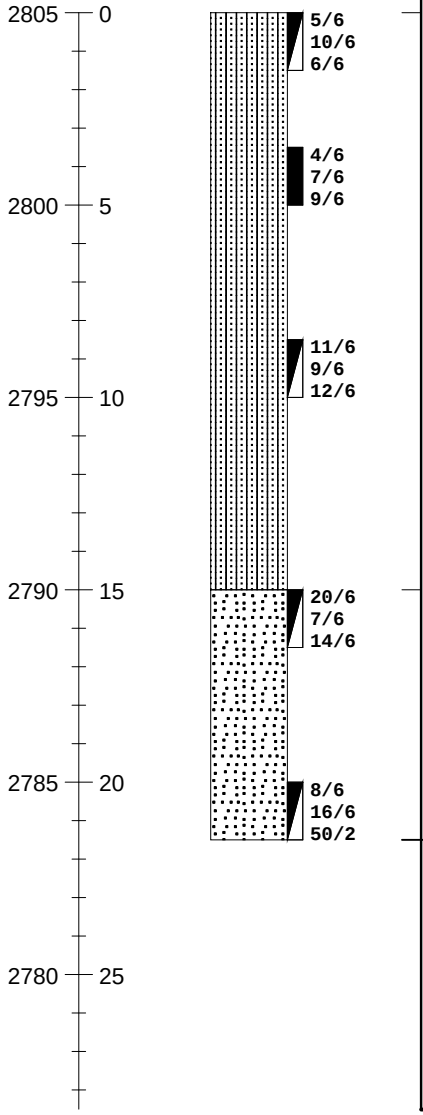
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	16	3.4		-#200=31% R- Value=16 EI=0
			Grades as above;	16	4.2	107.8	ø=44° -#200=25%
			Grades as above;	21	5.6		
		SP	Poorly Graded SAND with silt and gravel; medium dense, brown, dry to damp, fine to coarse grained.	21	3.1.		-#200=6%
			Grades as above; very dense.	>50	2.5		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetaions.*

Figure Number A-1

Test Boring: B-2 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

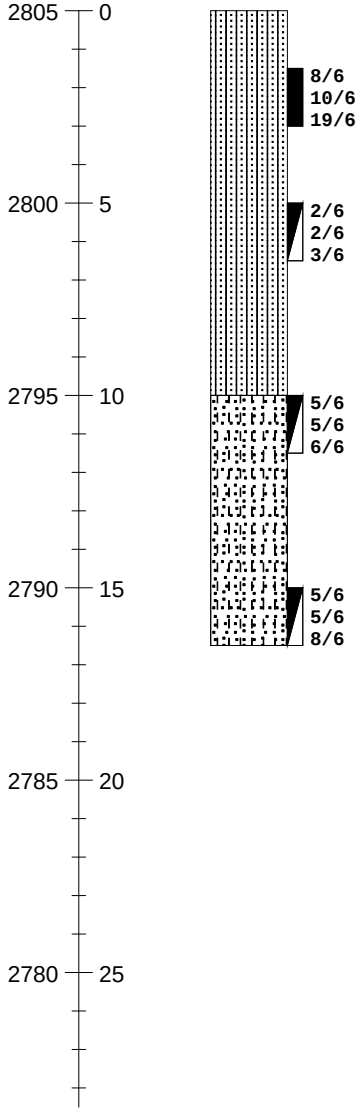
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	29	3.1	118.9	
			Grades as above; loose.	5	5.2		
		SP-SM	Poorly Graded SAND with silt and gravel; medium dense, brown, dry, fine to coarse grained.	11	1.7		
			Grades as above; wit layers of silty clay; medium dense.	13	3.0		
			End of boring at 16.5 feet BSG				

Notes: *Desert with vegetations.*

Figure Number A-2

SALEM engineering group, inc.

Test Boring: B-3 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

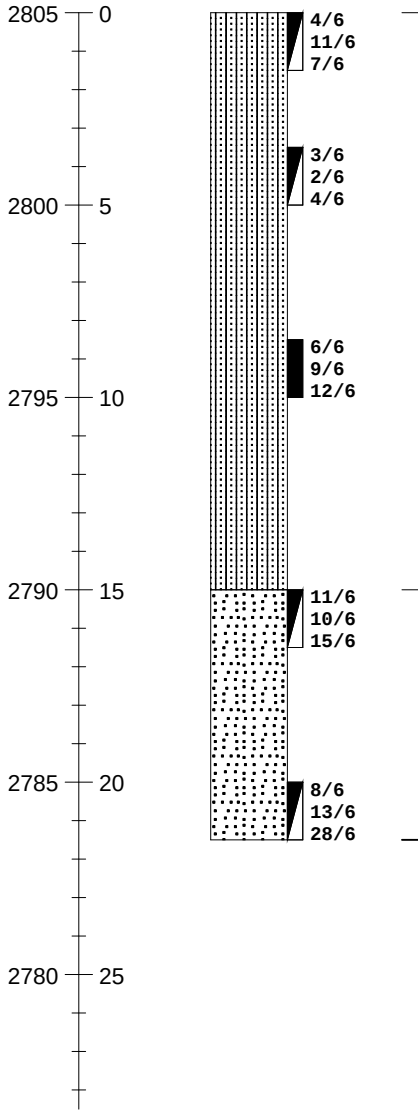
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	18	3.2		
			Grades as above; loose.	6	3.4		
			Grades as above; medium dense.	21	9.1	120.0	ø=44°
		SP	Poorly Graded SAND with gravel; medium dense, light brown, dry, fine to coarse grained.	25	2.7		
			Grades as above; dense.	41	2.9		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-3

Test Boring: B-4 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

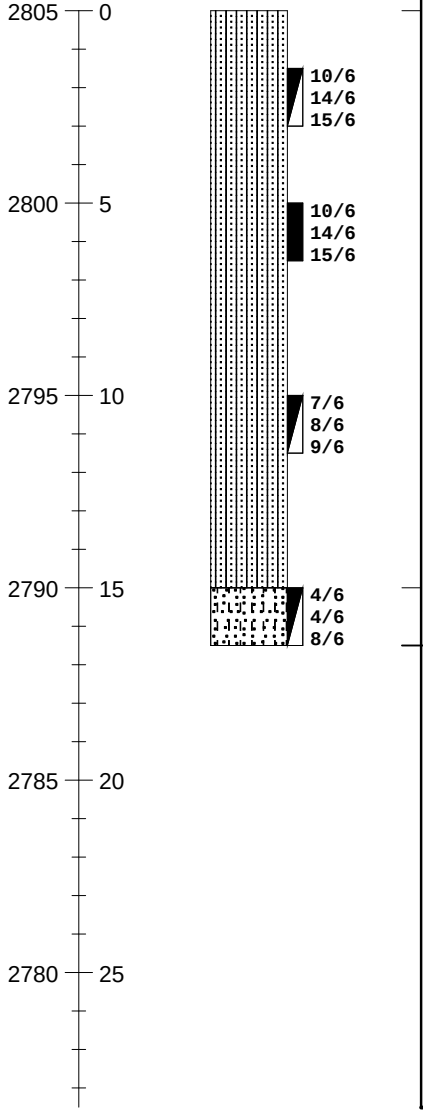
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; loose, brown, damp, fine to medium grained.	8	3.8		-#200=27%
			Grades as above; medium dense.	29	2.0	108.4	
			Grades as above;	17	4.2		-#200=17%
		SP-SM	Poorly Graded SAND with gravel and silt; medium dense, light brown, damp, fine to coarse grained.	12	2.5		
			End of boring at 16.5 feet BSG .				

Notes: *Desert with vegetations.*

Figure Number A-4

SALEM engineering group, inc.

Test Boring: B-5 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

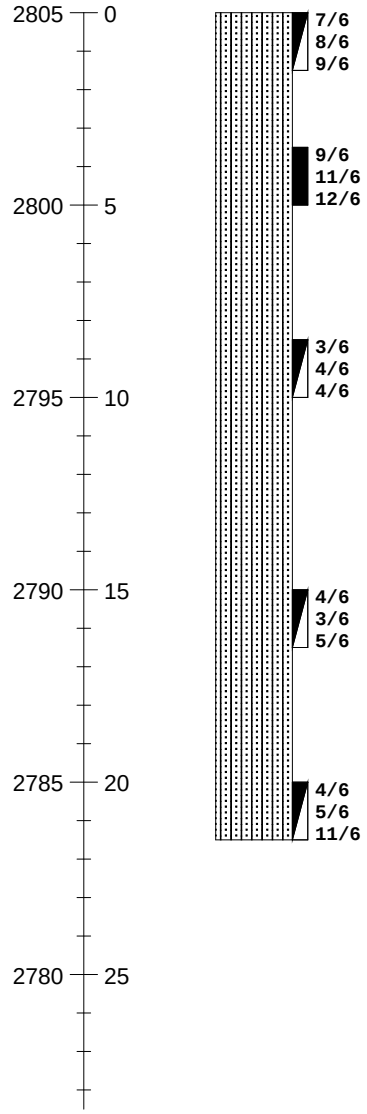
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	17	5.8		
			Grades as above;	23	4.3	112.6	
			Grades as above; loose.	8	5.3		
			Grades as above;	8	7.1		
			Grades as above; medium dense.	16	6.4		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-5

Test Boring: B-6 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

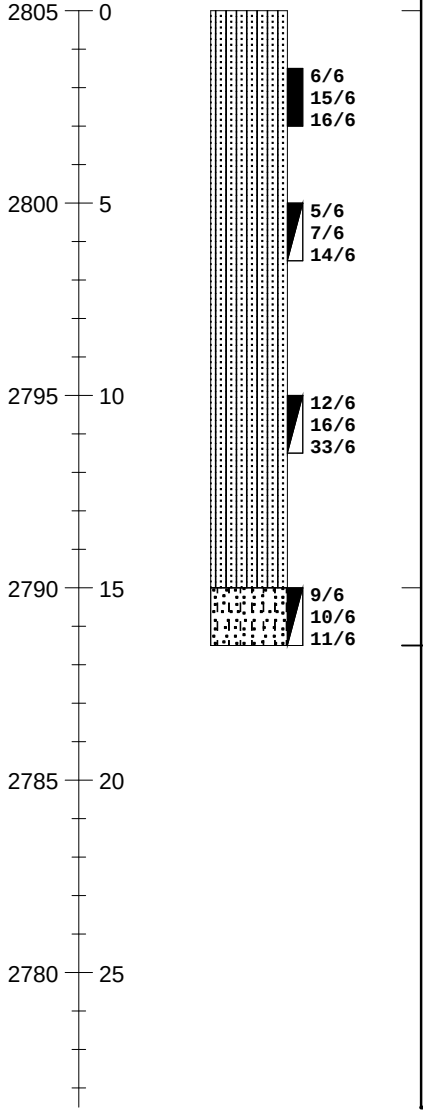
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0	6/6 15/6 16/6	SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	31	6.6	101.2	
5	5/6 7/6 14/6		Grades as above;	21	4.9		
10	12/6 16/6 33/6		Grades as above;	49	8.2		
15	9/6 10/6 11/6	SP-SM	Poorly Graded SAND with silt and gravel; medium dense, light brown, dry, fine to coarse grained.	21	3.1		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-6

Test Boring: B-7 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

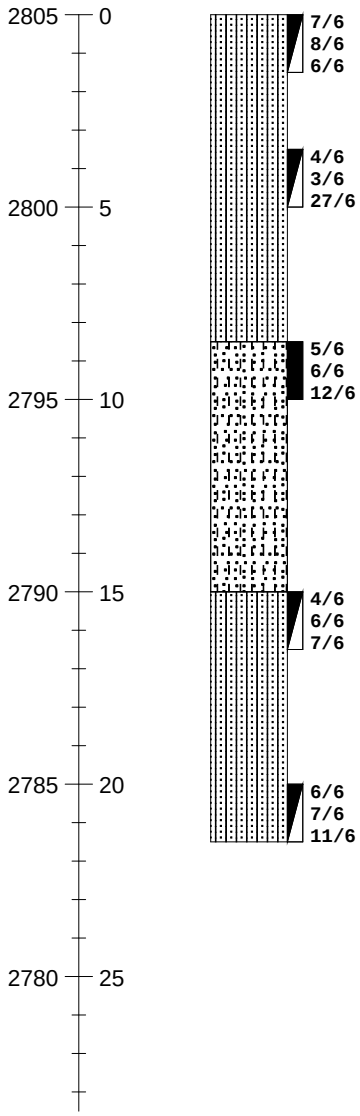
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	14	3.6		-#200=28% PI=0 LL=20
			Grades as above;	30	3.3		
		SP-SM	Poorly Graded SAND with silt; medium dense, brown, damp, fine to medium grained. non-plastic.	18	3.2	106.6	-#200=11%
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	13	8.8		
			Grades as above;	18	5.5		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-7

Test Boring: B-8 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

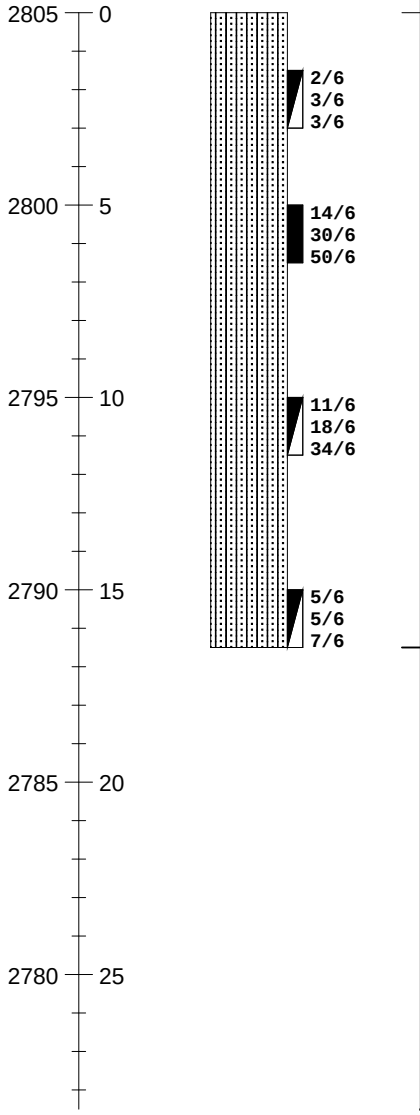
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; loose, brown, damp, fine to medium grained.	6	4.8		-#200=35%
			Grades as above; very dense.	>50	5.4	118.8	
			Grades as above;	>50	7.9		-#200=33%
		SM	Grades as above; medium dense.	12	3.6		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-8

Test Boring: B-9 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

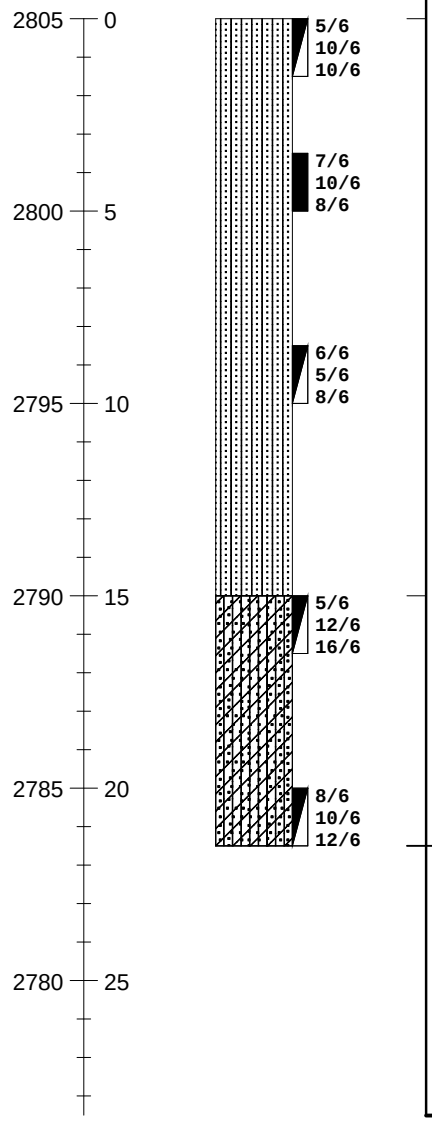
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	20	3.1		
			Grades as above;	18	3.4	118.1	
			Grades as above;	13	4.5		
			Grades as above; light brown, Increase in percent gravel, fine to coarse grained	28	5.4		
			Grades as above;	22	4.6		
			End of boring at 20 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-9

SALEM engineering group, inc.

Test Boring: B-10 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

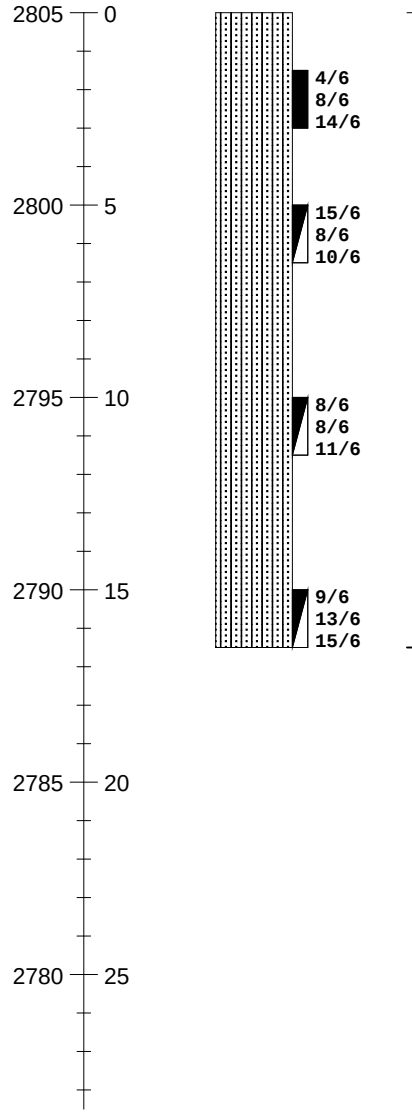
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	22	4.0	110.2	R-Value=26
			Grades as above;	18	5.5		
			Grades as above;	19	5.0		
			Grades as above;	28	8.0		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-10

SALEM engineering group, inc.

Test Boring: B-11 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

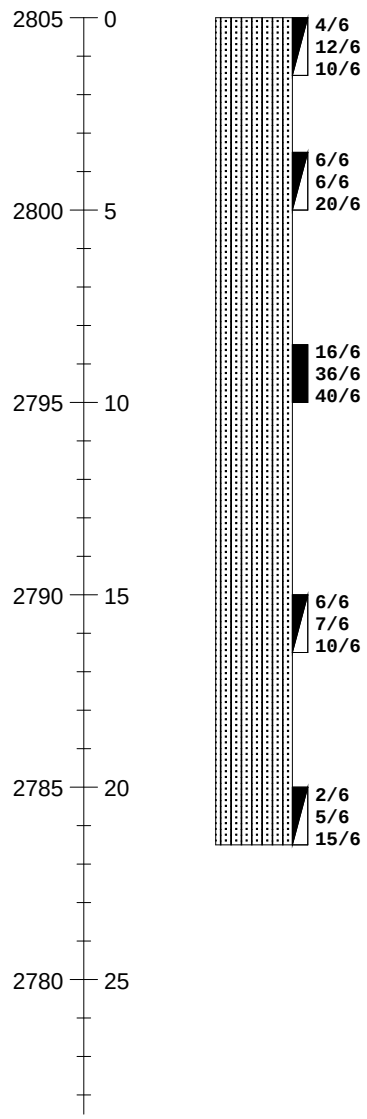
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	22	3.1		-#200=32%
			Grades as above;	26	4.1		
			Increase on percent fines, very dense.	>50	7.2	123.5	ø=43° -#200=44% PI=9 LL=27
			Grades as above; medium dense.	17	5.8		
			Grades as above;	20	5.9		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-11

SALEM engineering group, inc.

Test Boring: B-12 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

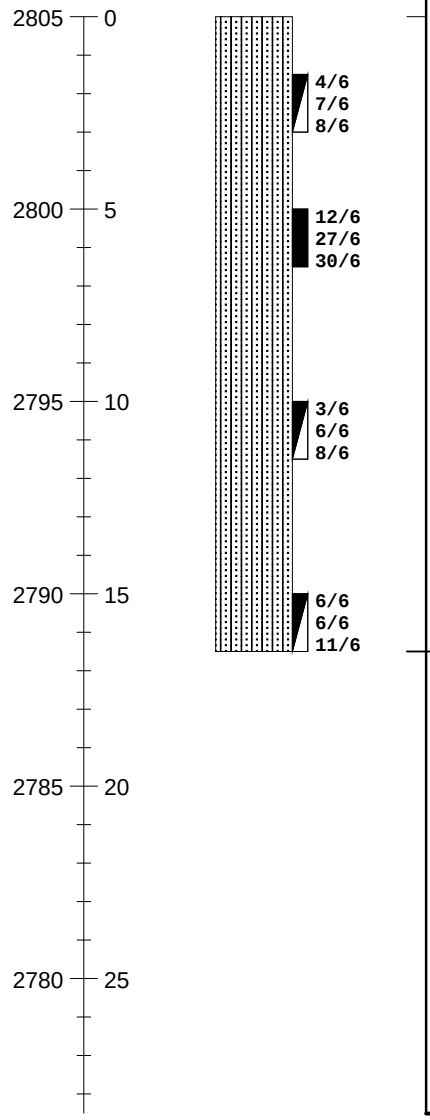
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	15	6.5		
			Grades as above; very dense.	>50	5.5	128.2	
			Grades as above; medium dense.	14	2.8		
			Grades as above;	17	2.9		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-12

Test Boring: B-13 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

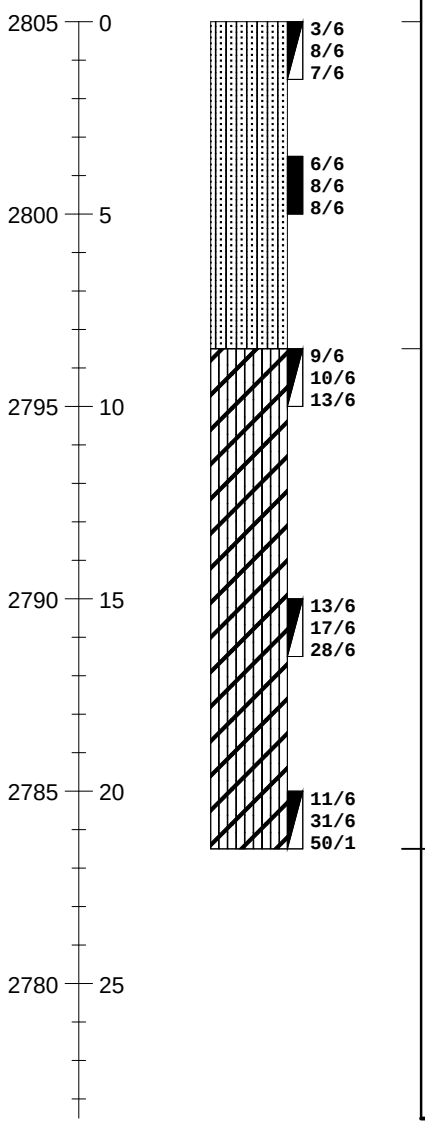
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	15	2.7		-#200=24%
			Grades as above;	16	3.4	111.2	
		CL-ML	Grades as above;	23	7.6		-#200=21%
			Grades as above; dense.	45	9.2		
			Grades as above; very dense.	>50	6.6		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-13

Test Boring: B-14 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

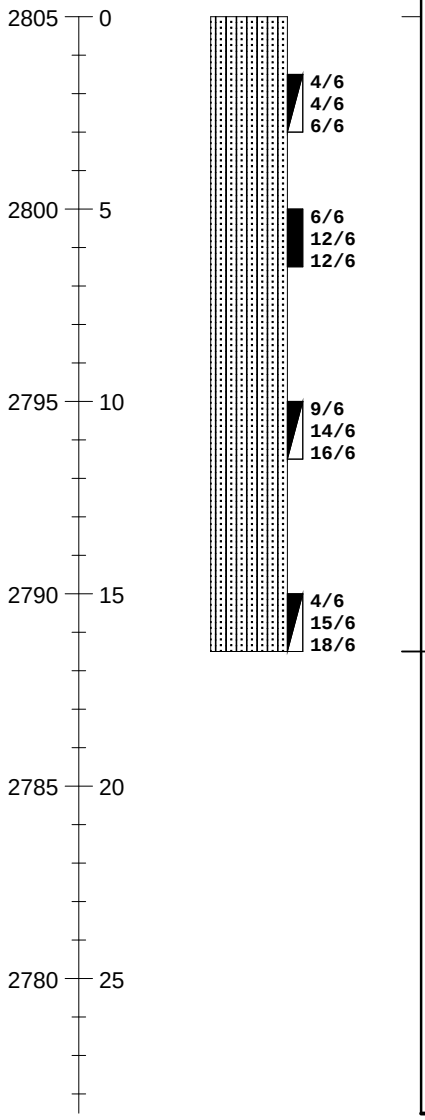
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	10	3.0		
			Grades as above;	24	2.2	113.5	ø=43°
			Grades as above;	30	3.7		
			Grades as above;	33	3.1		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-14

Test Boring: B-15 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

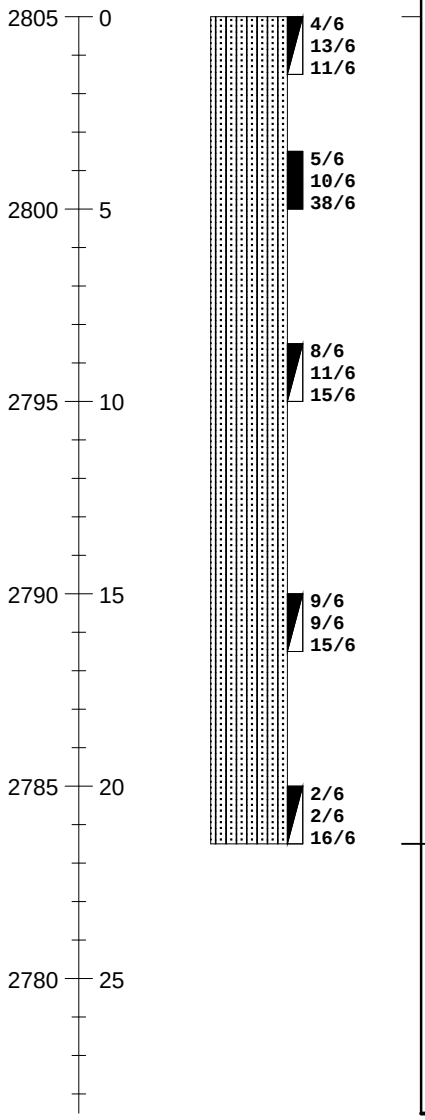
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	24	3.7		
			Grades as above; dense.	48	4.4	122.6	-#200=28% PI=8 LL=29
			Grades as above; medium dense.	26	4.4		
			Grades as above;	24	6.1		
			Grades as above;	18	6.0		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-15

KEY TO SYMBOLS

Symbol Description

Strata symbols



Silty Sand



Poorly graded sand



Poorly graded sand with silt



Silty, Clayey SAND



Silty low plasticity clay

Soil Samplers



Standard penetration test



California sampler

Notes:

Granular Soils
Blows Per Foot (Uncorrected)

	MCS	SPT
Very loose	<5	<4
Loose	5-15	4-10
Medium dense	16-40	11-30
Dense	41-65	31-50
Very dense	>65	>50

Cohesive Soils
Blows Per Foot (Uncorrected)

	MCS	SPT
Very soft	<3	<2
Soft	3-5	2-4
Firm	6-10	5-8
Stiff	11-20	9-15
Very Stiff	21-40	16-30
Hard	>40	>30

MCS = Modified California Sampler
SPT = Standard Penetration Test Sampler

Percolation Test Worksheet

Project:	**4.99MW Gound Mount Solar & Bess Storage**	**Job No.:**	**3-223-1034**	Length of Pipe	60 in.
	Lancaster, CA.	**Date Drilled:**	**10/19/2023**	Pipe stickup:	0.67 ft
		Soil Classification:		Hole Dia.:	7.75 in.
				Pipe Dia.:	3 in.
Test Hole No.:	**P-1**			Gravel Below Pipe:	0 in.
Tested By:	**CC**	**Presoaking Date:**	**10/19/2023**	Gravel pack porosity:	0.4
Drilled Hole Depth:	**4.3 Feet**	**Test Date:**	**10/19/2023**	Gravel Correc Factor:	0.5

Time Start	Time Finish	Refill-Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Uncorrected Percolation Rate (min/in)	Gravel Pack Corrected Unfactored Percolation Rate (min/in)	Estimated Unfactored Infiltration Rate (inches/hr)
11:20	11:50	N	0:30	2.35	3.01	7.92	30	3.8	7.7	0.51
11:50	12:20	N	0:30	3.01	3.33	3.84	30	7.8	15.9	0.31
12:20	12:50	N	0:30	3.33	3.62	3.48	30	8.6	17.6	0.33
12:52	13:22	Y	0:30	2.46	3.05	7.08	30	4.2	8.6	0.47
13:22	13:52	N	0:30	3.05	3.32	3.24	30	9.3	18.9	0.26
13:52	14:22	N	0:30	3.32	3.56	2.88	30	10.4	21.3	0.27
								Estimated Unfactored Infiltration Rate (in/hr)		0.34

measured from top of pipe

SALEM
engineering group, inc.

Percolation Test Worksheet

Project:	**4.99MW Gound Mount Solar & Bess Storage**	**Job No.:**	**3-223-1034**	Length of Pipe	64 in.
	Lancaster, CA.	**Date Drilled:**	**10/19/2023**	Pipe stickup:	0.7 ft
		Soil Classification:		Hole Dia.:	6 in.
				Pipe Dia.:	3 in.
Test Hole No.:	**P-2**			Gravel Below Pipe:	-2 in.
Tested By:	**CC**	**Presoaking Date:**	**10/19/2023**	Gravel pack porosity:	0.4
Drilled Hole Depth:	**4.5 Feet**	**Test Date:**	**10/19/2023**	Gravel Correc Factor:	0.6

Time Start	Time Finish	Refill- Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Uncorrected Percolation Rate (min/in)	Gravel Pack Corrected Unfactored Percolation Rate (min/in)	Estimated Unfactored Infiltration Rate (inches/hr)
11:10	11:40	N	0:30	2.37	3.13	9.12	30	3.3	6.0	0.49
11:40	12:10	N	0:30	3.13	3.49	4.32	30	6.9	12.6	0.30
12:10	12:40	N	0:30	3.49	3.81	3.84	30	7.8	14.2	0.32
12:42	13:12	Y	0:30	2.63	3.12	5.88	30	5.1	9.3	0.33
13:12	13:42	N	0:30	3.12	3.40	3.36	30	8.9	16.2	0.23
13:42	14:12	N	0:30	3.40	3.66	3.12	30	9.6	17.5	0.24
								Estimated Unfactored Infiltration Rate (in/hr)		0.27

measured from top of pipe

SALEM
engineering group, inc.

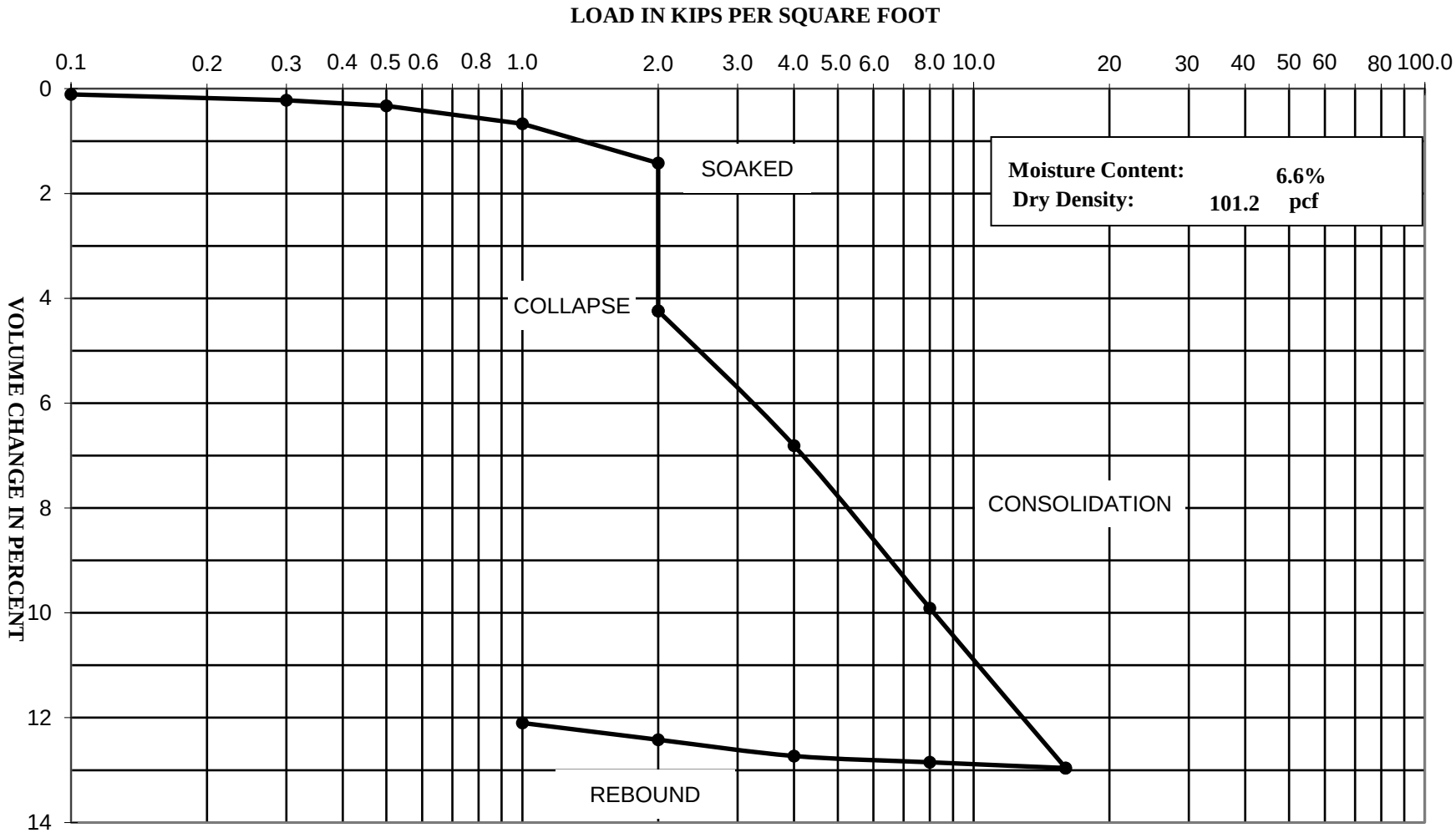
APPENDIX

B

APPENDIX B
LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM), Caltrans, or other suggested procedures. Selected samples were tested for in-situ moisture content, corrosivity, shear strengths, expansion index, soil resistivity, plasticity index, and grain size distribution. The results of the laboratory tests are summarized in the following figures.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D2435



Project Name: 4.99MW Solar & BESS - Lancaster

Project Number: 3-223-1034

Boring: B-6 @ 1.5'

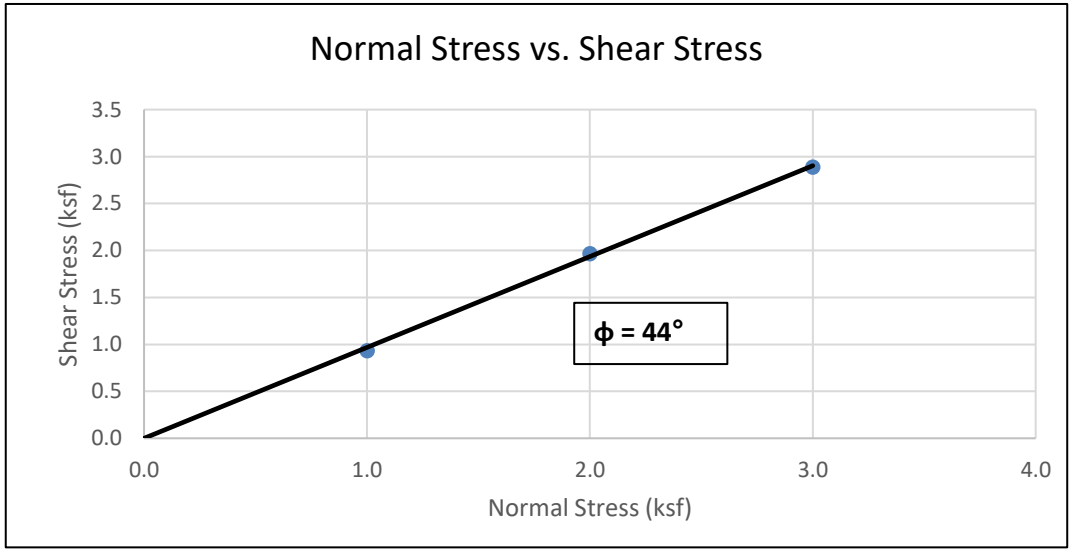
SALEM engineering group, inc.

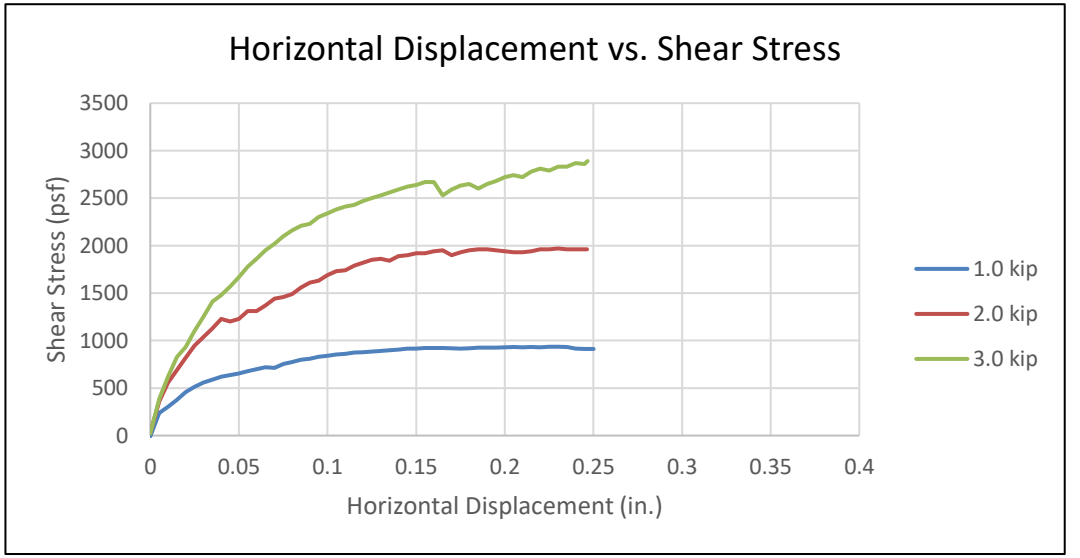
Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-1 @ 3.5'
Soil Type: Silty Sand (SM)
Sample Type: Undisturbed Ring
Tested By: NL
Reviewed By:
Date of Test: 10/26/23
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	0.94	1.97	2.89

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.913	0.893	0.871
Post-Shear Sample Height (in.)	0.896	0.871	0.849
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)	4.2		
Dry Density (pcf)	107.4	105.2	101.1
Saturation %	20.3	19.1	17.3
Void Ratio	0.56	0.60	0.66
Consolidated Void Ratio	0.43	0.43	0.45
Final (post-shear) Values			
Final Moisture Content (%)	17.1	15.7	14.7
Dry Density (pcf)	114.5	115.7	113.0
Saturation %	80.3	77.7	71.8
Void Ratio	0.57	0.54	0.55





Peak Shear Strength Values	
Slope	0.98
Friction Angle	44
Cohesion (psf)	0

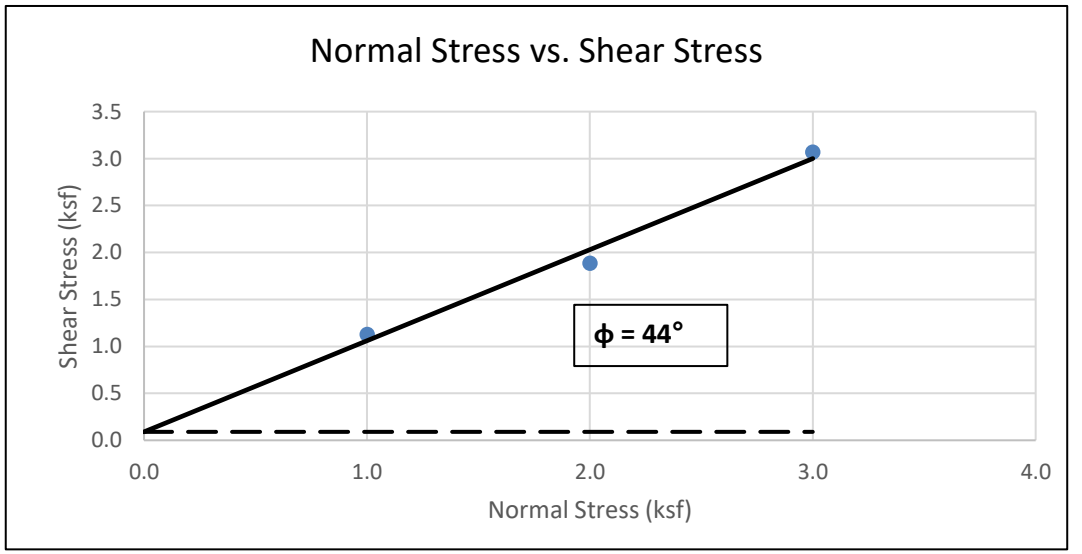
SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

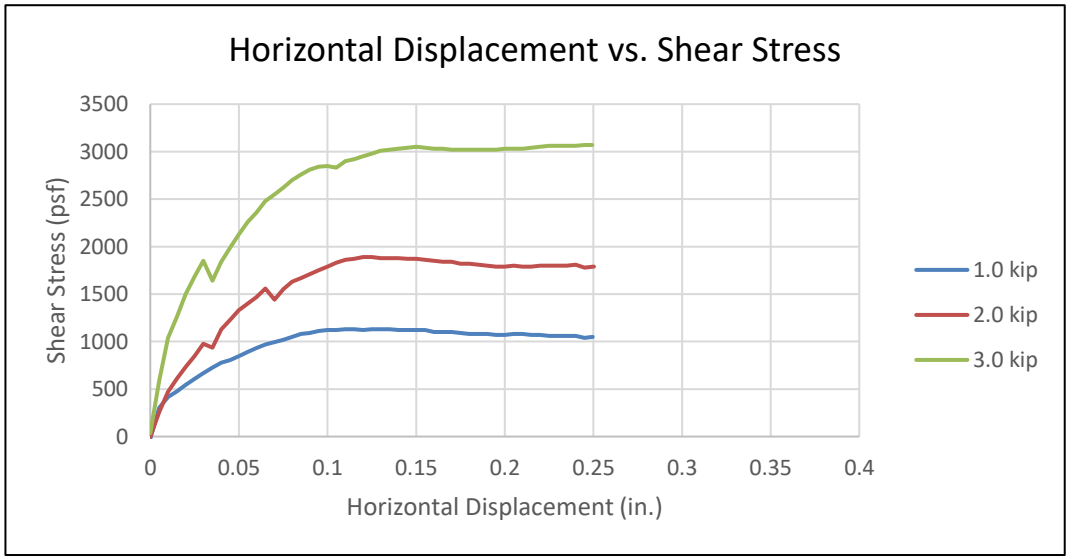
Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-3 @ 8.5'
Soil Type:
Sample Type: Undisturbed Ring
Tested By: NL / MC
Reviewed By:
Date of Test: 10/26/23 & 10/27/23
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	1.13	1.89	3.07

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.957	0.935	0.926
Post-Shear Sample Height (in.)	0.955	0.948	0.911
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)		9.1	
Dry Density (pcf)	111.7	113.9	119.9
Saturation %	48.5	51.4	60.9
Void Ratio	0.50	0.47	0.40
Consolidated Void Ratio	0.44	0.38	0.30
Final (post-shear) Values			
Final Moisture Content (%)	16.0	16.4	15.6
Dry Density (pcf)	119.0	115.9	126.5
Saturation %	81.7	89.8	119.1
Void Ratio	0.53	0.49	0.35



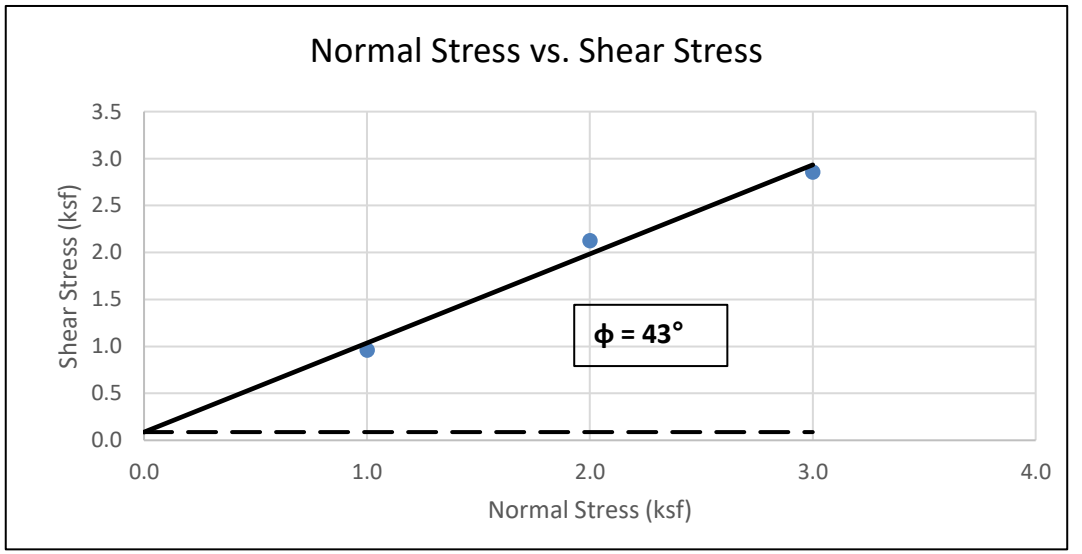


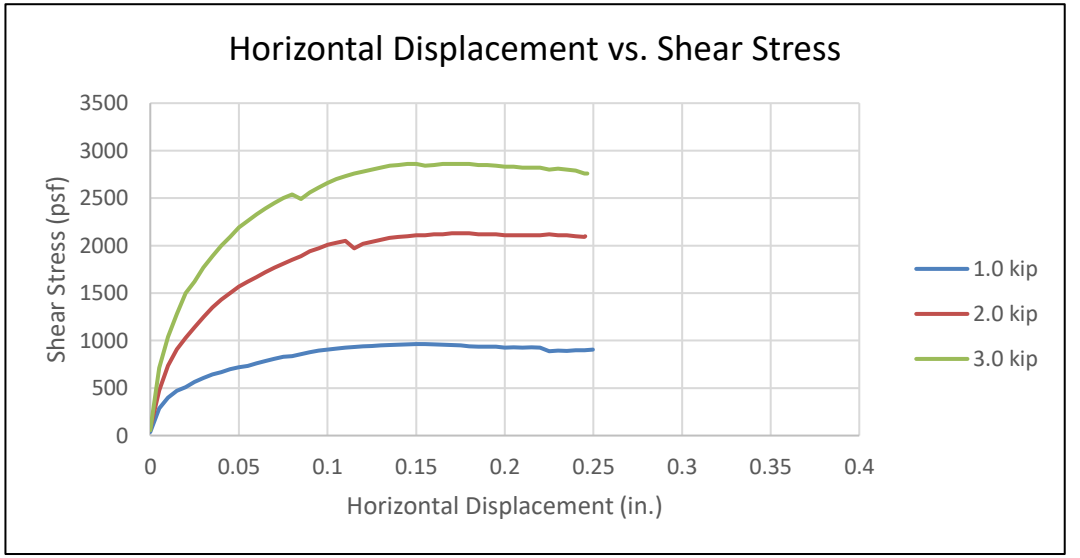
Peak Shear Strength Values	
Slope	0.97
Friction Angle	44
Cohesion (psf)	90

SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-11 @ 8.5'
Soil Type:
Sample Type: Undisturbed Ring
Tested By: NL
Reviewed By:
Date of Test: 10/27/23
Test Equipment: GeoComp ShearTrac II





	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	0.96	2.13	2.86

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.917	0.889	0.868
Post-Shear Sample Height (in.)	0.897	0.871	0.849
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)		7.2	
Dry Density (pcf)	124.5	127.8	122.3
Saturation %	55.7	61.9	52.2
Void Ratio	0.35	0.31	0.37
Consolidated Void Ratio	0.24	0.17	0.19
Final (post-shear) Values			
Final Moisture Content (%)	19.5	18.4	16.9
Dry Density (pcf)	121.9	130.1	127.5
Saturation %	150.3	187.2	167.6
Void Ratio	0.35	0.26	0.27

Peak Shear Strength Values	
Slope	0.95
Friction Angle	43
Cohesion (psf)	87

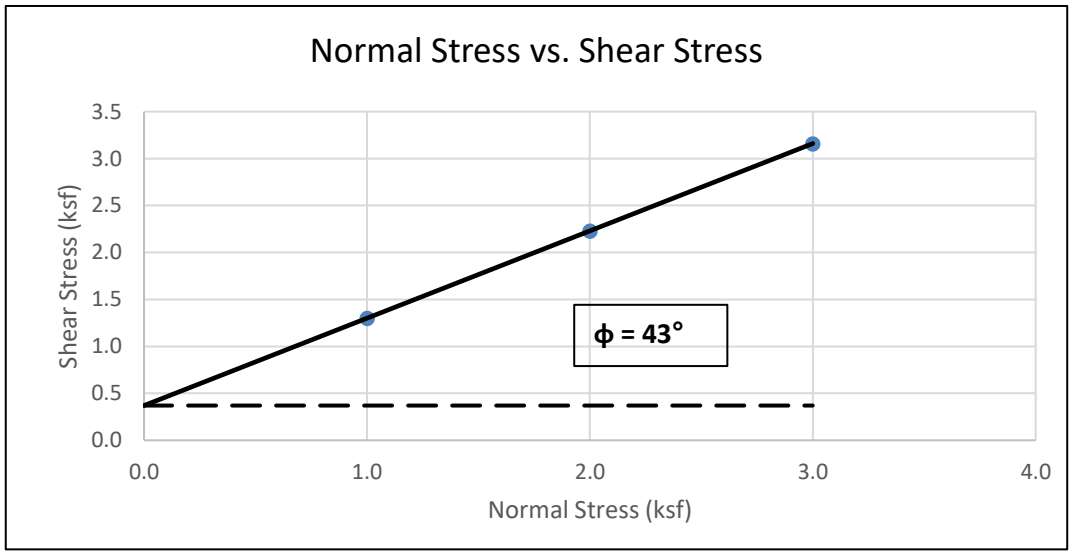
SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

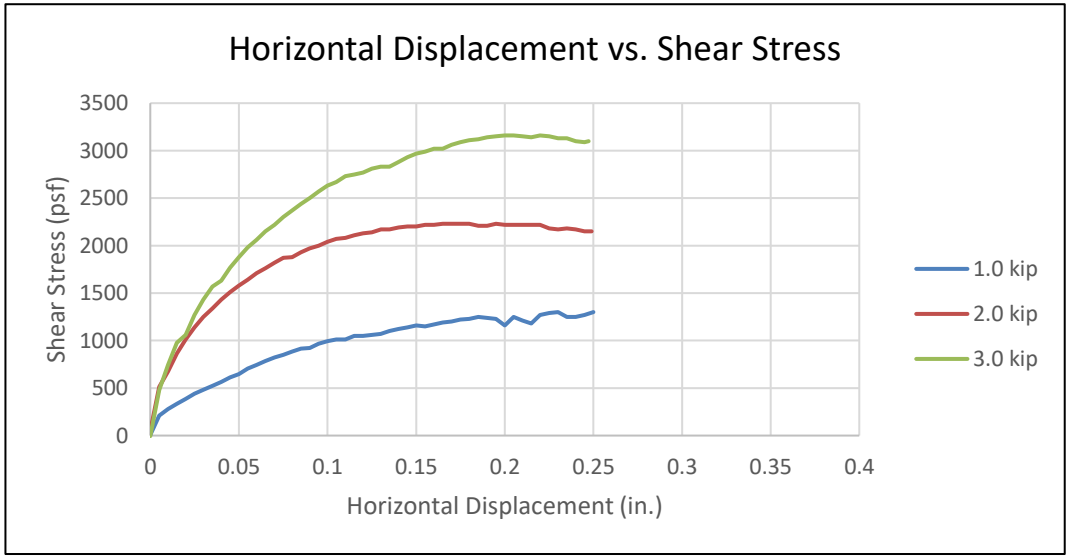
Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-14 @ 5'
Soil Type:
Sample Type: Undisturbed Ring
Tested By: NL
Reviewed By:
Date of Test: 10/27/23
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	1.30	2.23	3.16

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.965	0.960	0.930
Post-Shear Sample Height (in.)	0.946	0.955	0.915
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)	2.2		
Dry Density (pcf)	107.6	111.4	107.8
Saturation %	10.5	11.6	10.6
Void Ratio	0.55	0.50	0.55
Consolidated Void Ratio	0.50	0.44	0.44
Final (post-shear) Values			
Final Moisture Content (%)	17.6	17.4	17.2
Dry Density (pcf)	106.9	108.5	109.0
Saturation %	68.2	72.3	73.7
Void Ratio	0.69	0.64	0.62



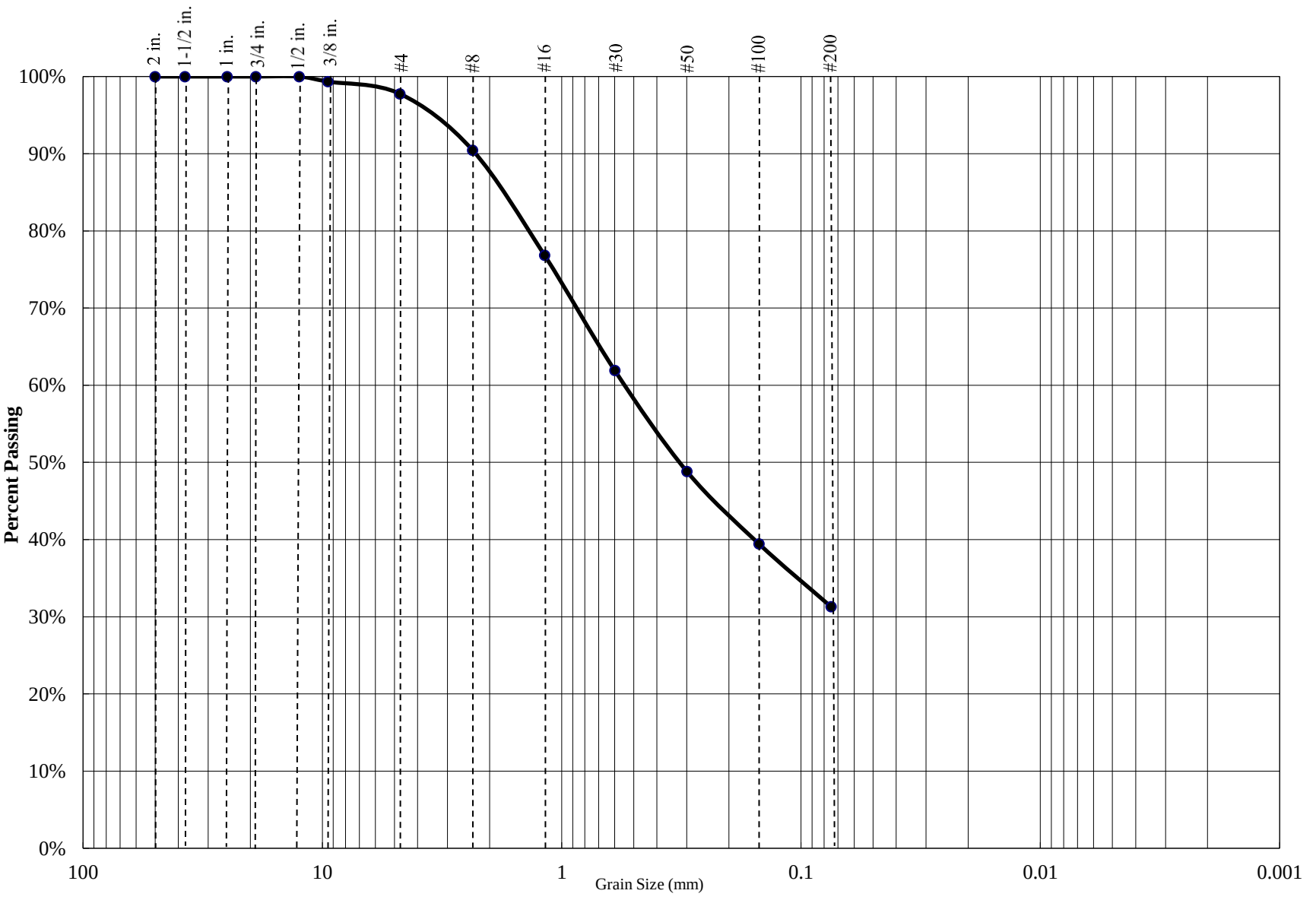


Peak Shear Strength Values	
Slope	0.93
Friction Angle	43
Cohesion (psf)	370

SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	67%	31%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	99.3%
#4	97.8%
#8	90.5%
#16	76.9%
#30	61.9%
#50	48.8%
#100	39.5%
#200	31.3%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

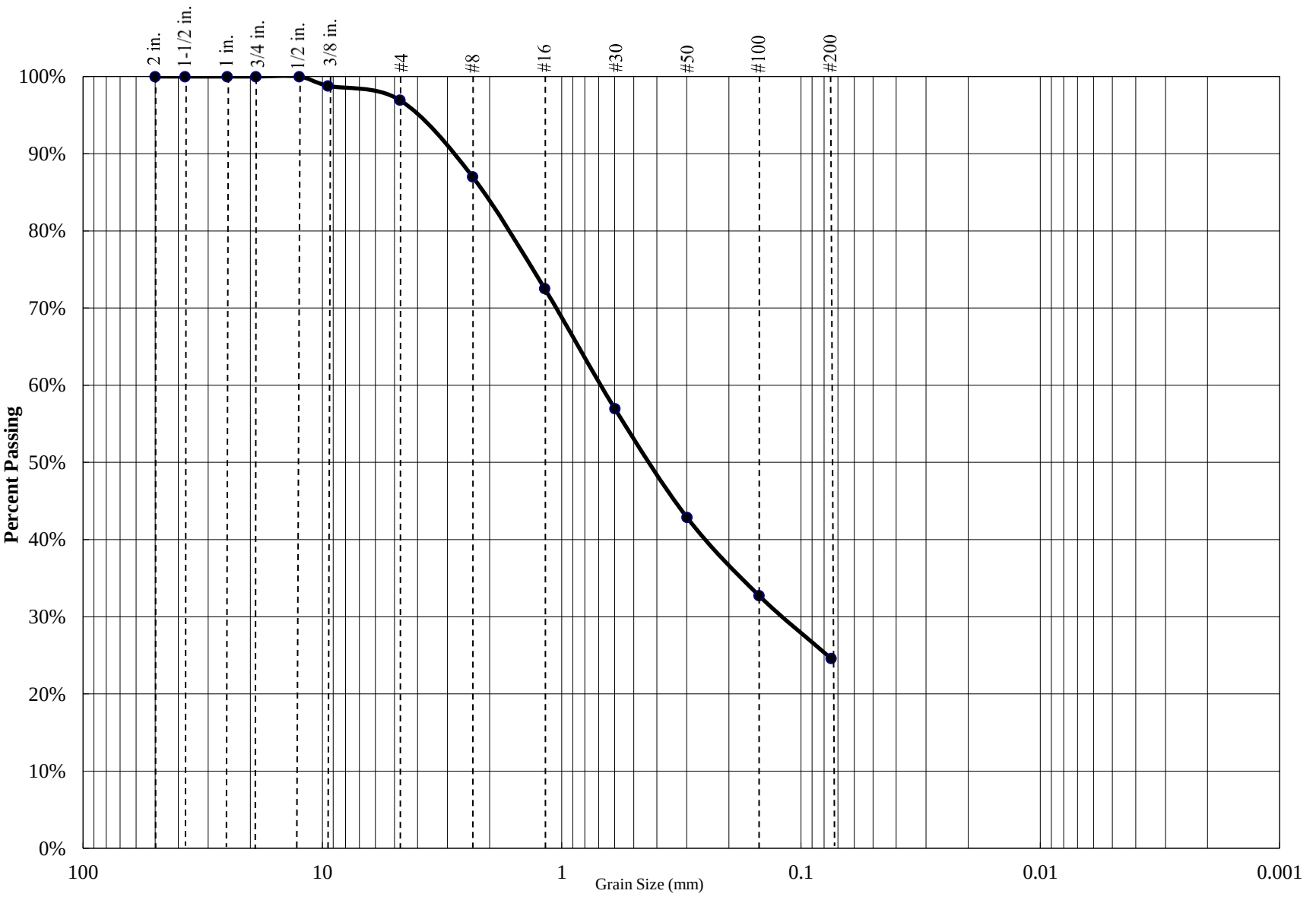
Project Number: 3-223-1034

Boring: B-1 @ 0 - 4'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	72%	25%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	98.8%
#4	96.9%
#8	87.0%
#16	72.6%
#30	57.0%
#50	42.9%
#100	32.8%
#200	24.6%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

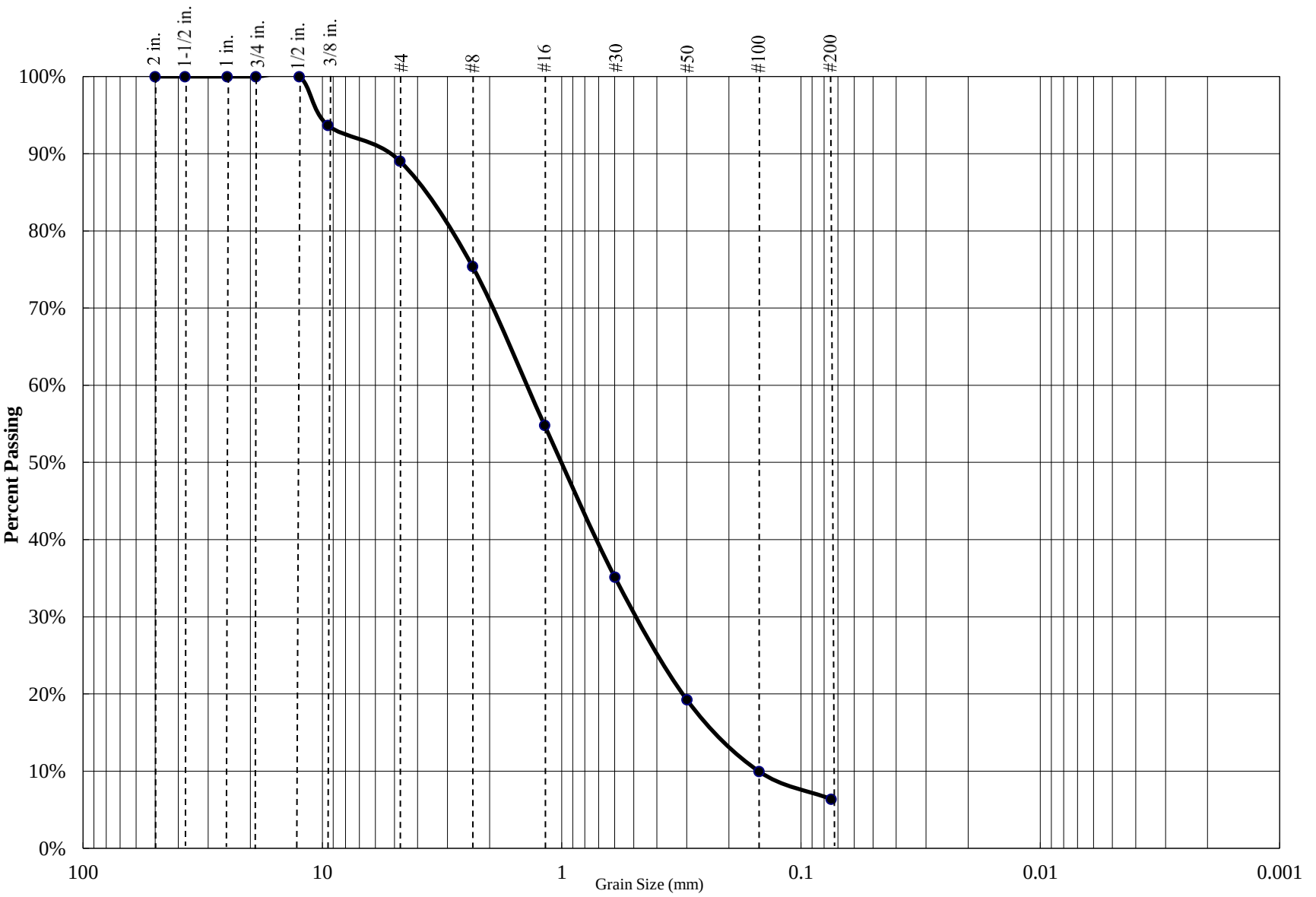
Project Number: 3-223-1034

Boring: B-1 @ 3.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
11%	83%	6%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	93.7%
#4	89.1%
#8	75.4%
#16	54.8%
#30	35.1%
#50	19.3%
#100	10.0%
#200	6.4%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients			
D_{85}=		**D_{60}=**	**D_{50}=**
D_{30}=		**D_{15}=**	**D_{10}=**
C_u=	N/A	**C_c=**	N/A

USCS CLASSIFICATION
Poorly Graded Sand with Silt (SP-SM)

Project Name: 4.99MW Solar & BESS - Lancaster

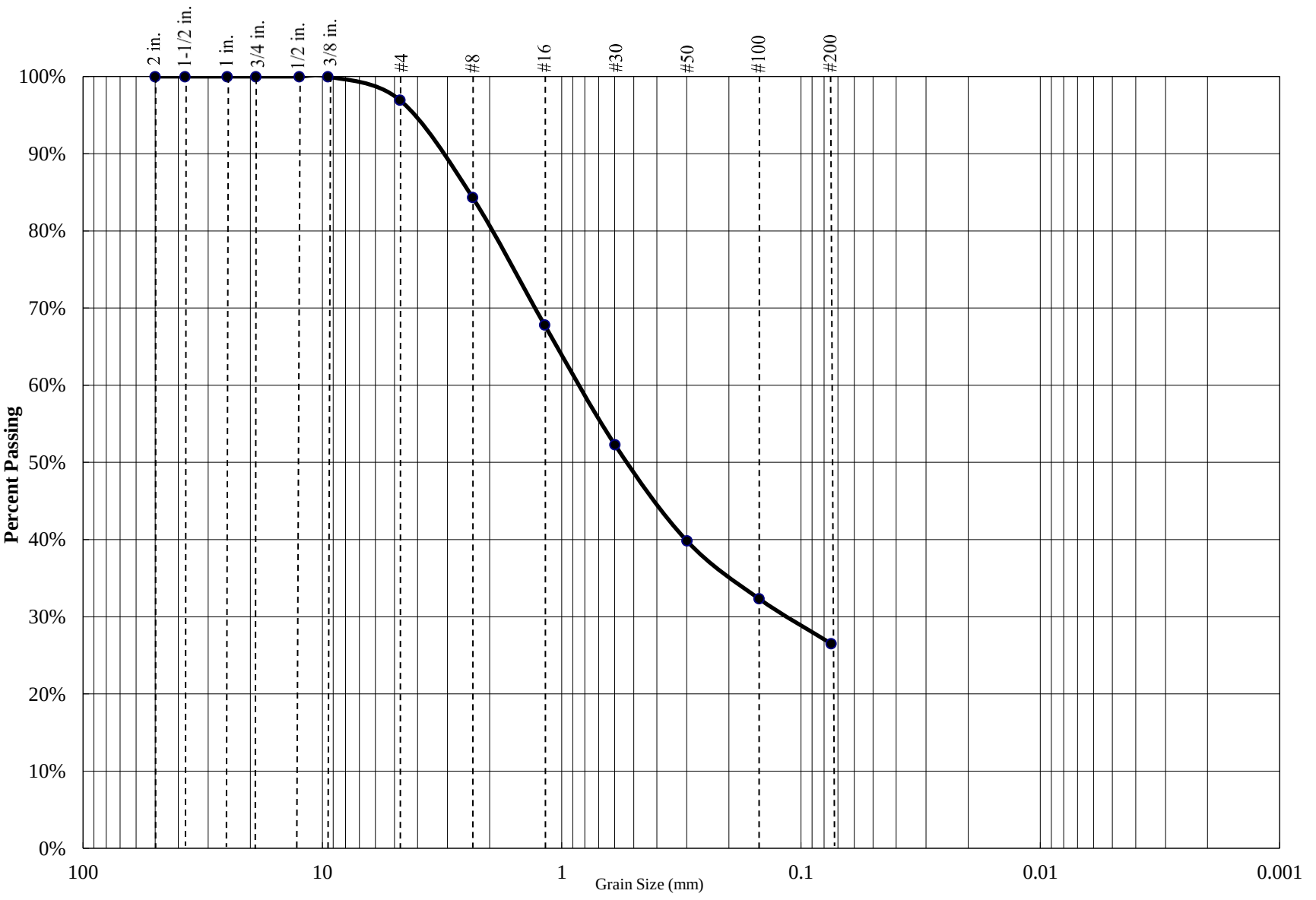
Project Number: 3-223-1034

Boring: B-1 @ 15'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	70%	27%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	97.0%
#8	84.4%
#16	67.8%
#30	52.3%
#50	39.8%
#100	32.3%
#200	26.5%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

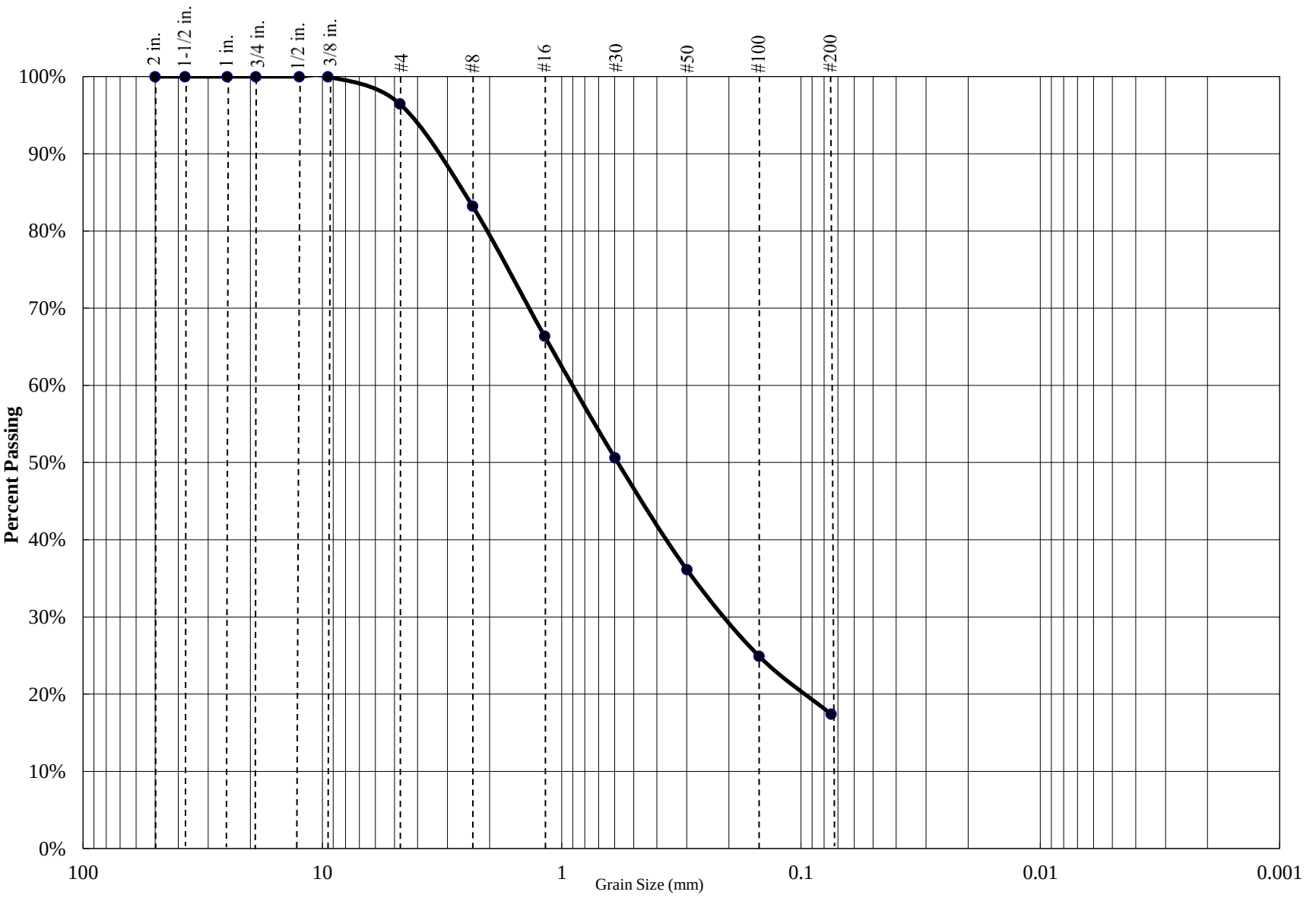
Project Number: 3-223-1034

Boring: B-4 @ 1.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
4%	79%	17%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	96.5%
#8	83.2%
#16	66.4%
#30	50.6%
#50	36.1%
#100	24.9%
#200	17.4%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

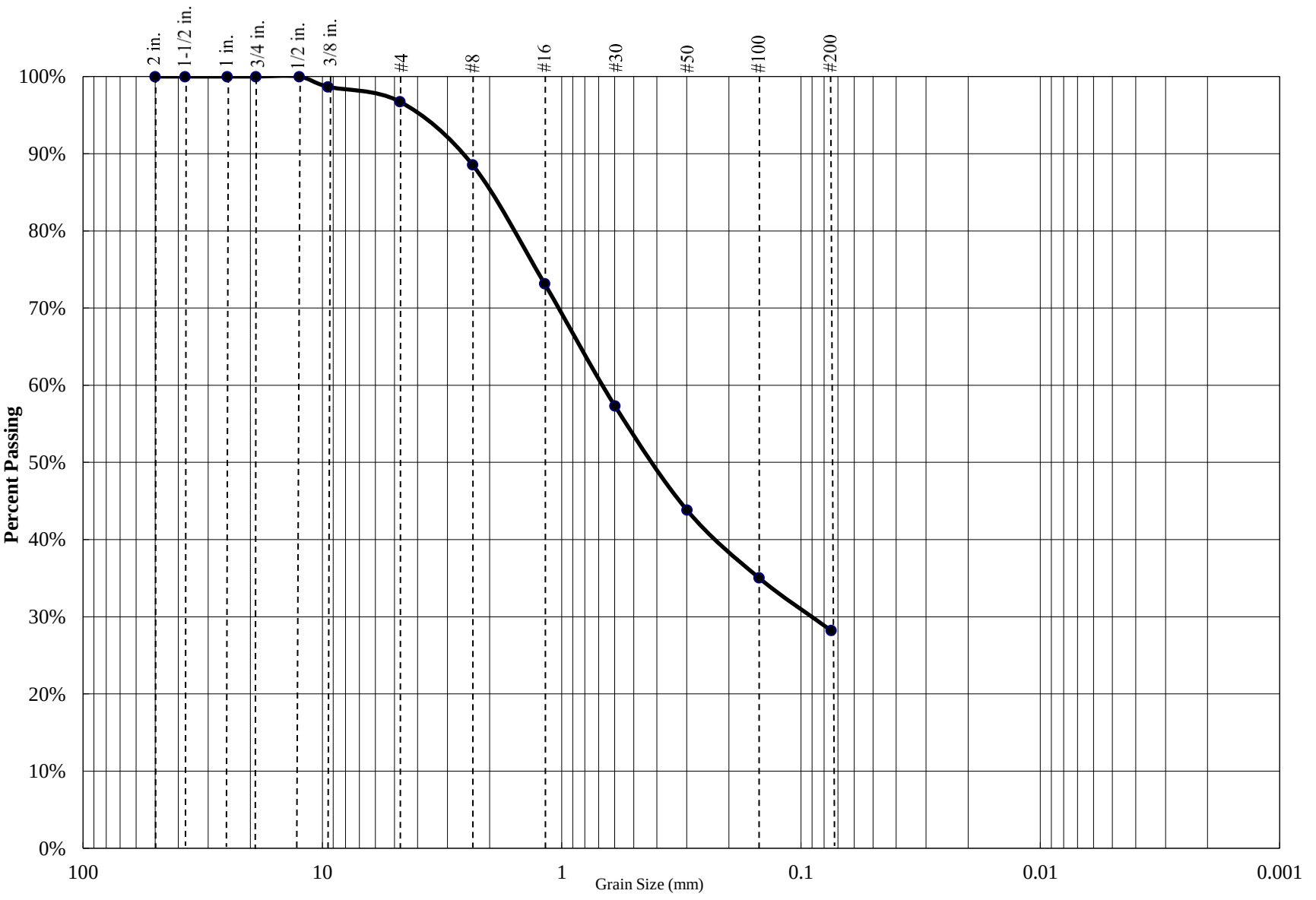
Project Number: 3-223-1034

Boring: B-4 @ 10'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	69%	28%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	98.7%
#4	96.7%
#8	88.6%
#16	73.2%
#30	57.3%
#50	43.8%
#100	35.0%
#200	28.2%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

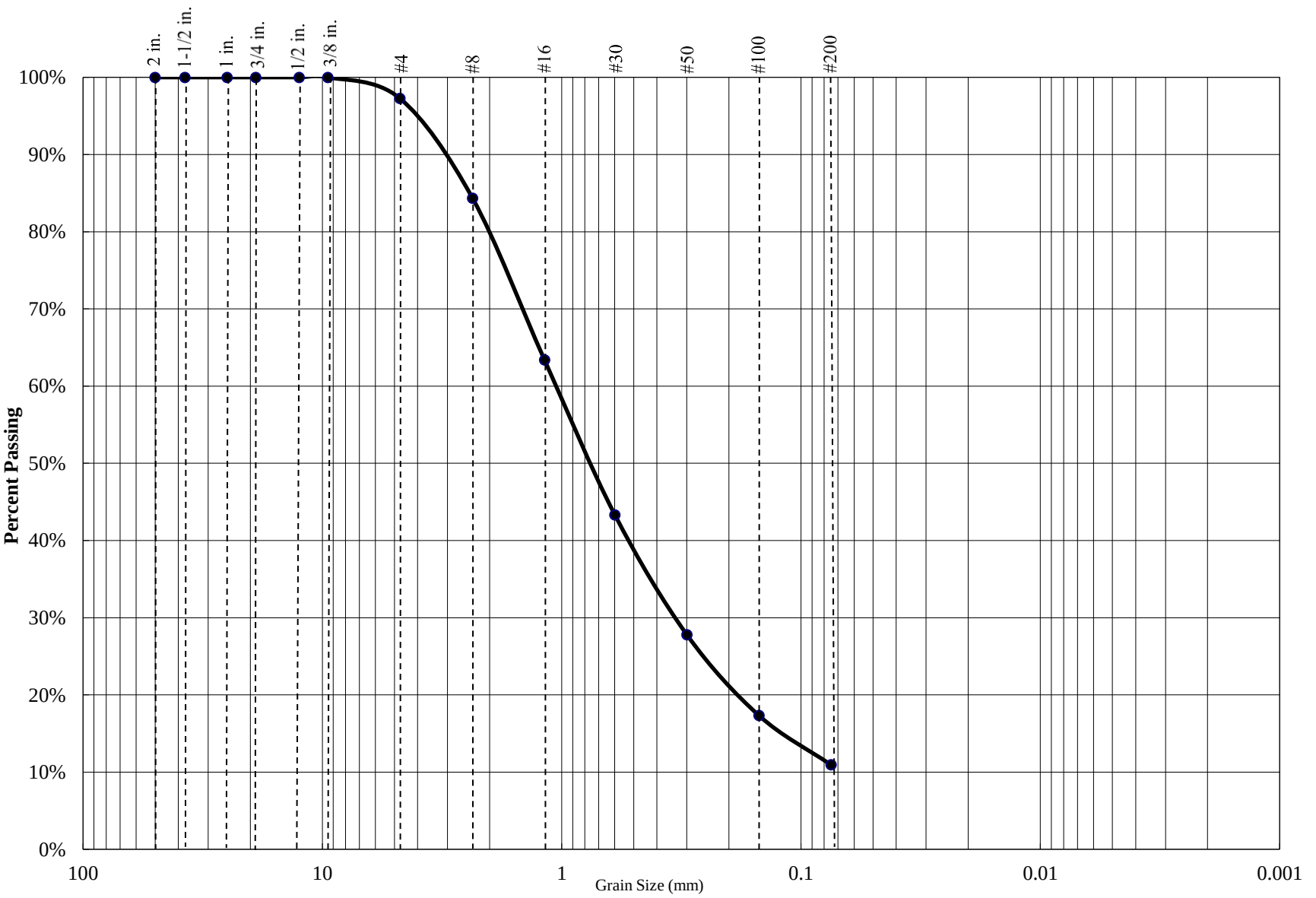
Project Number: 3-223-1034

Boring: B-7 @ 0'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	86%	11%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	97.3%
#8	84.4%
#16	63.4%
#30	43.3%
#50	27.8%
#100	17.3%
#200	10.9%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Poorly Graded Sand with Silt (SP-SM)

Project Name: 4.99MW Solar & BESS - Lancaster

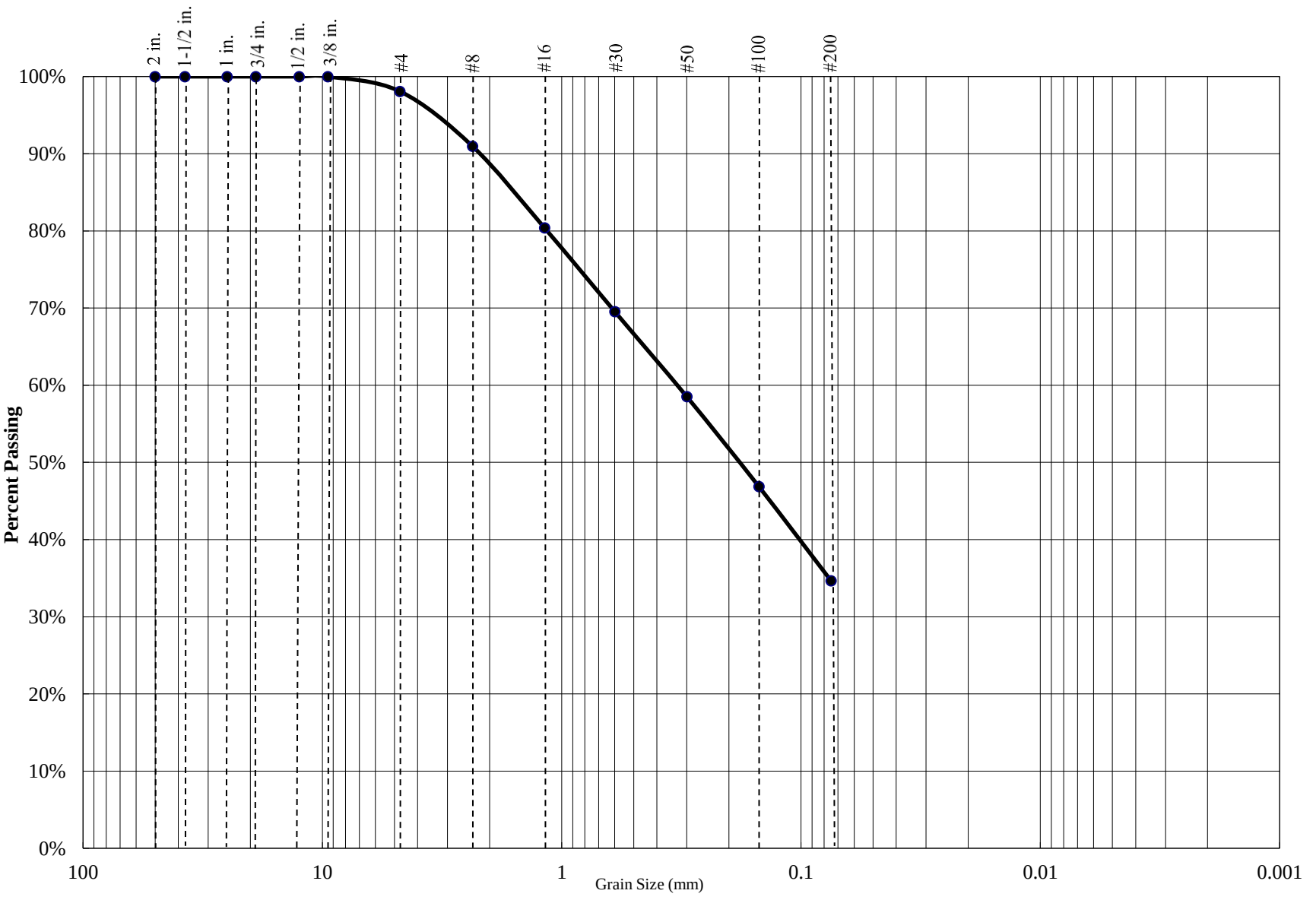
Project Number: 3-223-1034

Boring: B-7 @ 8.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	63%	35%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	98.1%
#8	91.0%
#16	80.4%
#30	69.5%
#50	58.5%
#100	46.9%
#200	34.7%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

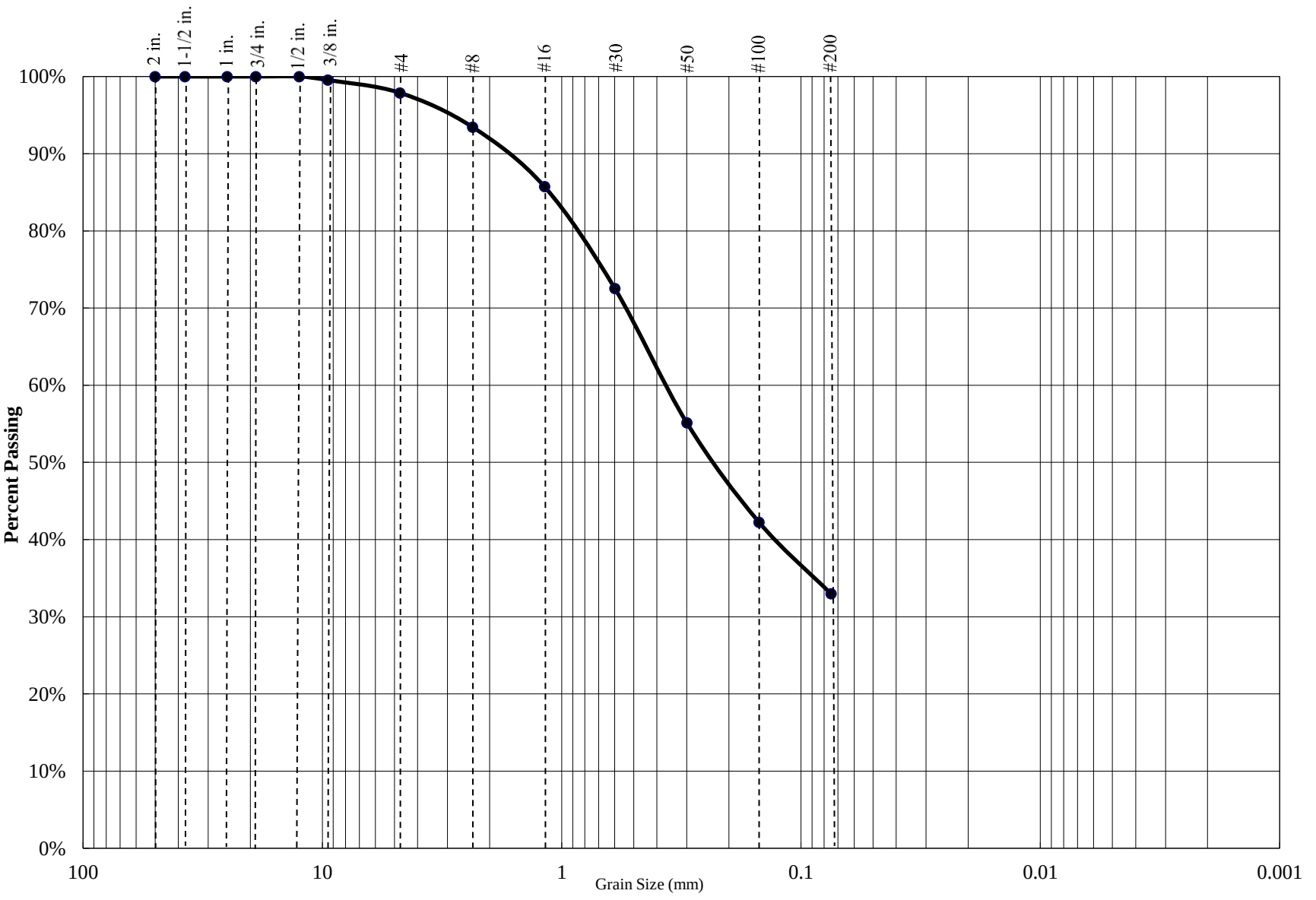
Project Number: 3-223-1034

Boring: B-8 @ 1.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	65%	33%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	99.5%
#4	97.9%
#8	93.5%
#16	85.7%
#30	72.6%
#50	55.1%
#100	42.3%
#200	33.0%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

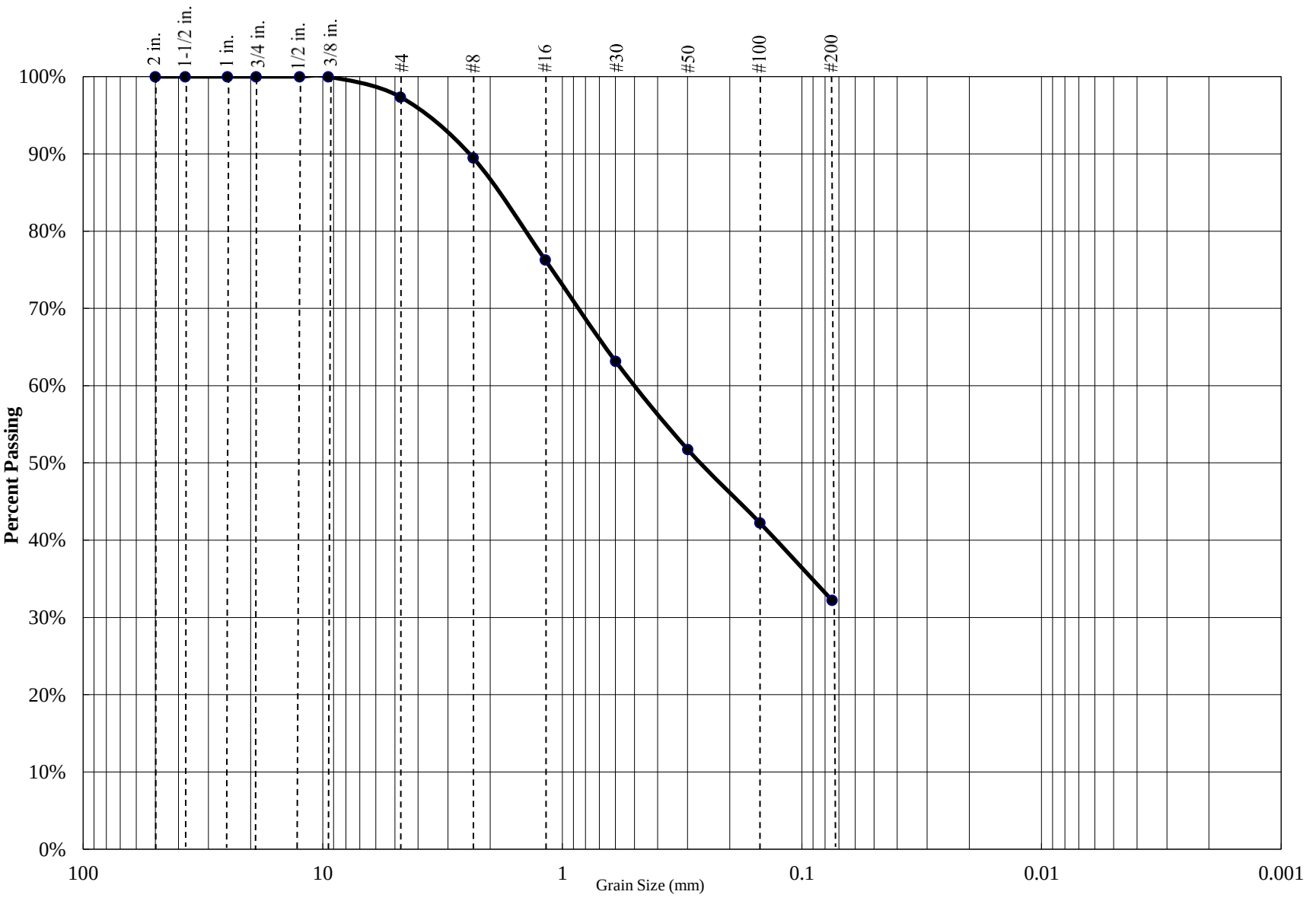
Project Number: 3-223-1034

Boring: B-8 @ 10'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	65%	32%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	97.4%
#8	89.5%
#16	76.3%
#30	63.2%
#50	51.7%
#100	42.3%
#200	32.2%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

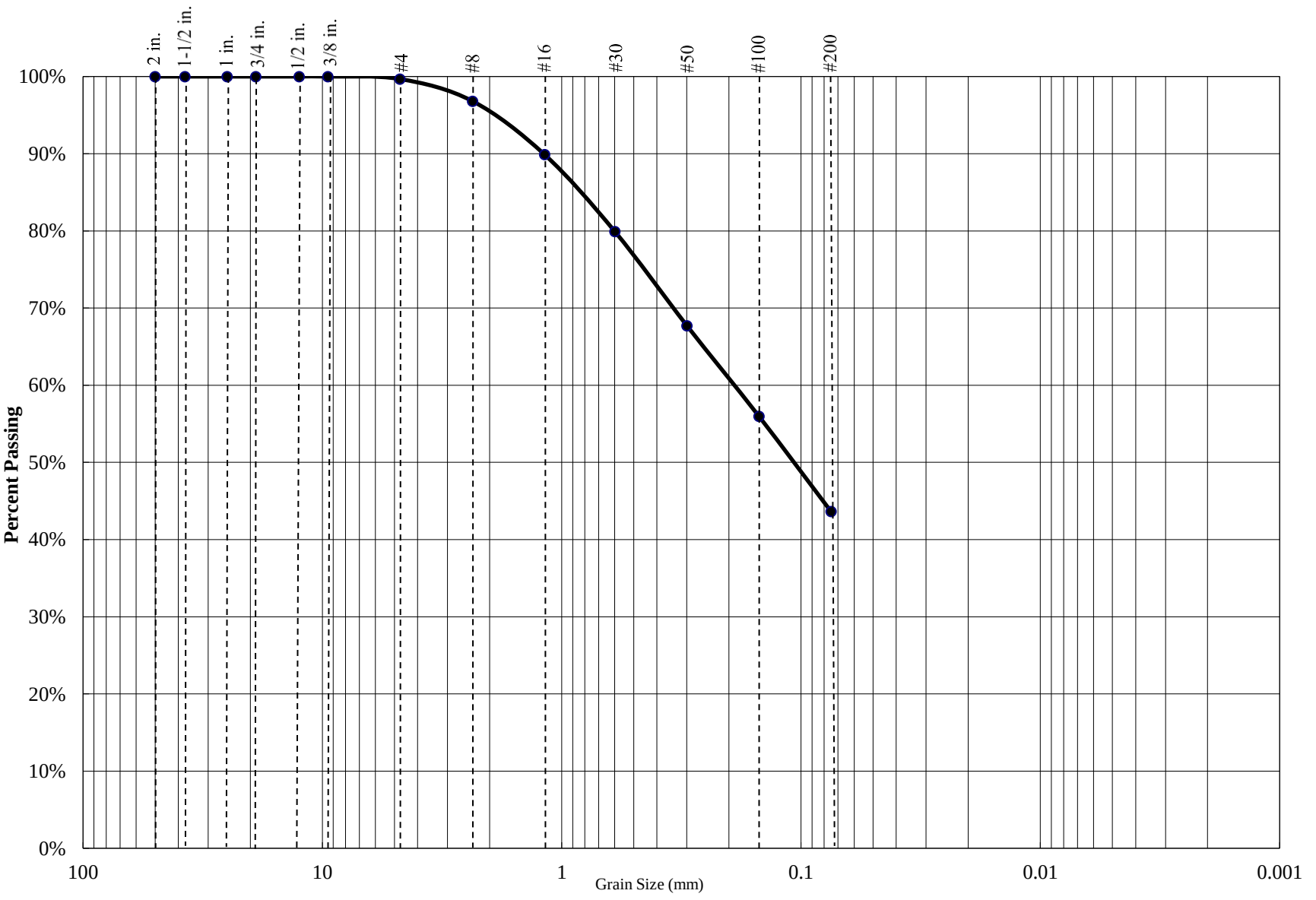
Project Number: 3-223-1034

Boring: B-11 @ 0'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	56%	44%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	99.7%
#8	96.8%
#16	89.9%
#30	79.9%
#50	67.7%
#100	56.0%
#200	43.7%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

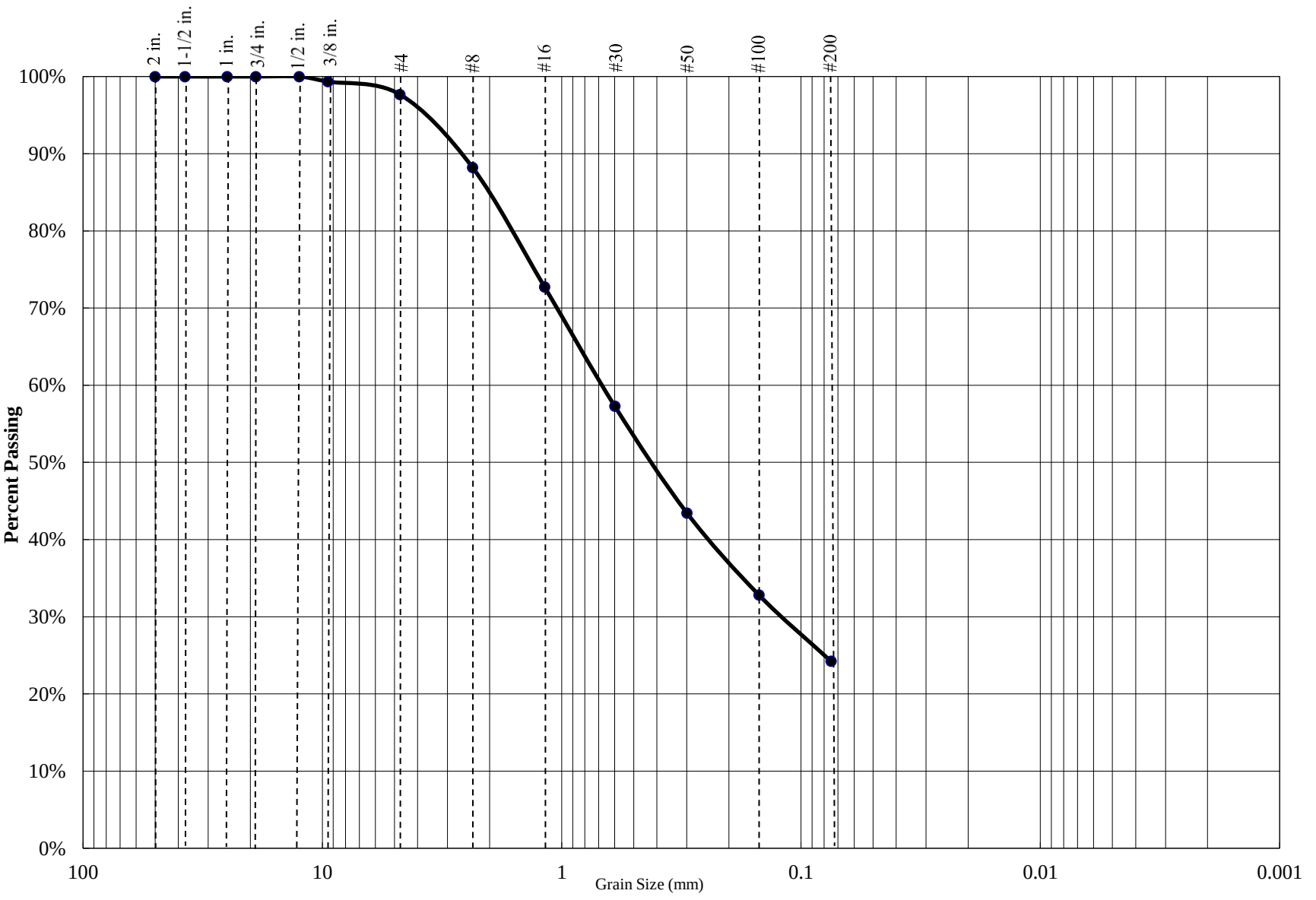
Project Number: 3-223-1034

Boring: B-11 @ 8.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	74%	24%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	99.3%
#4	97.7%
#8	88.2%
#16	72.8%
#30	57.3%
#50	43.5%
#100	32.8%
#200	24.2%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

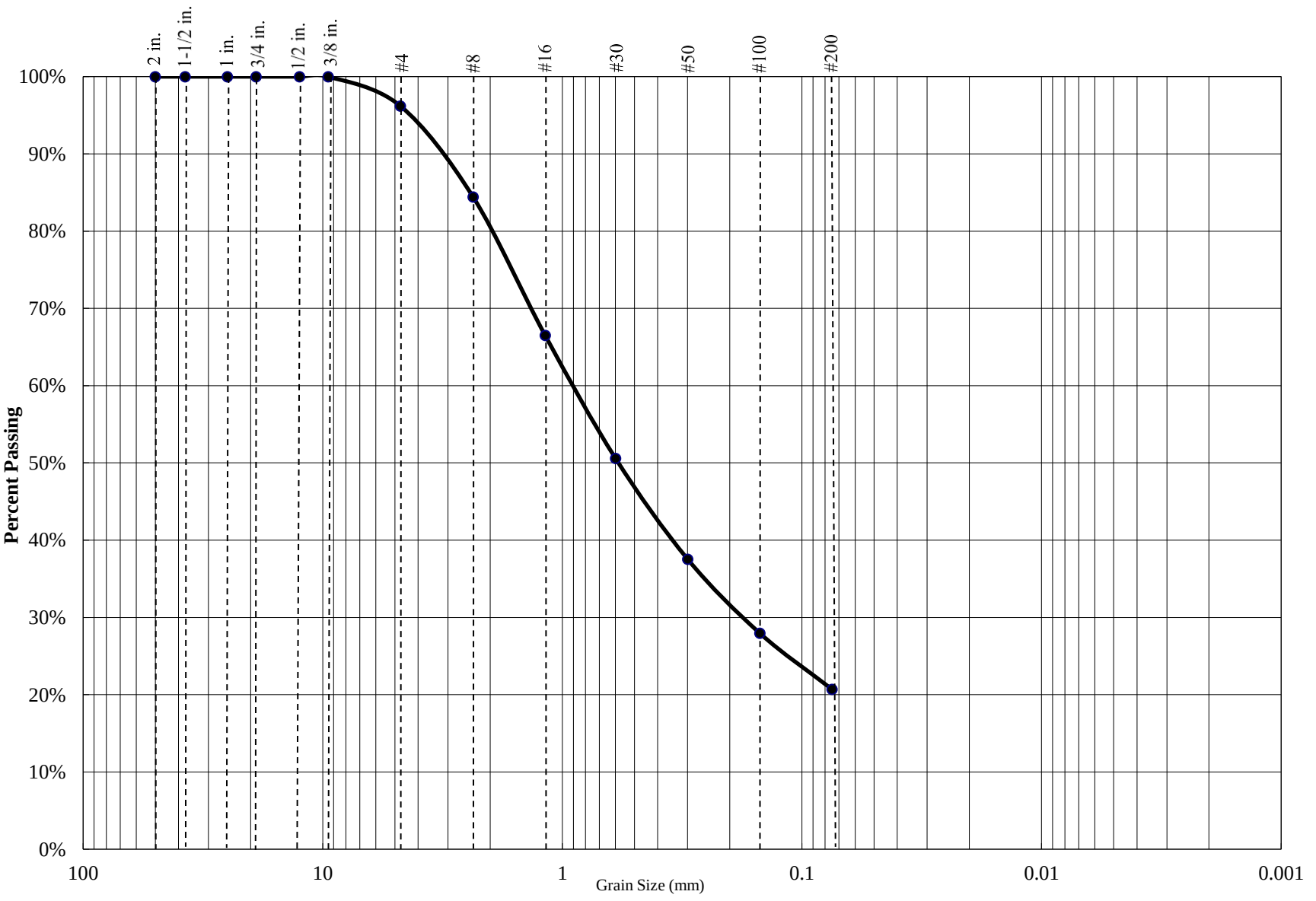
Project Number: 3-223-1034

Boring: B-13 @ 0'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
4%	75%	21%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	96.2%
#8	84.4%
#16	66.5%
#30	50.6%
#50	37.5%
#100	28.0%
#200	20.7%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

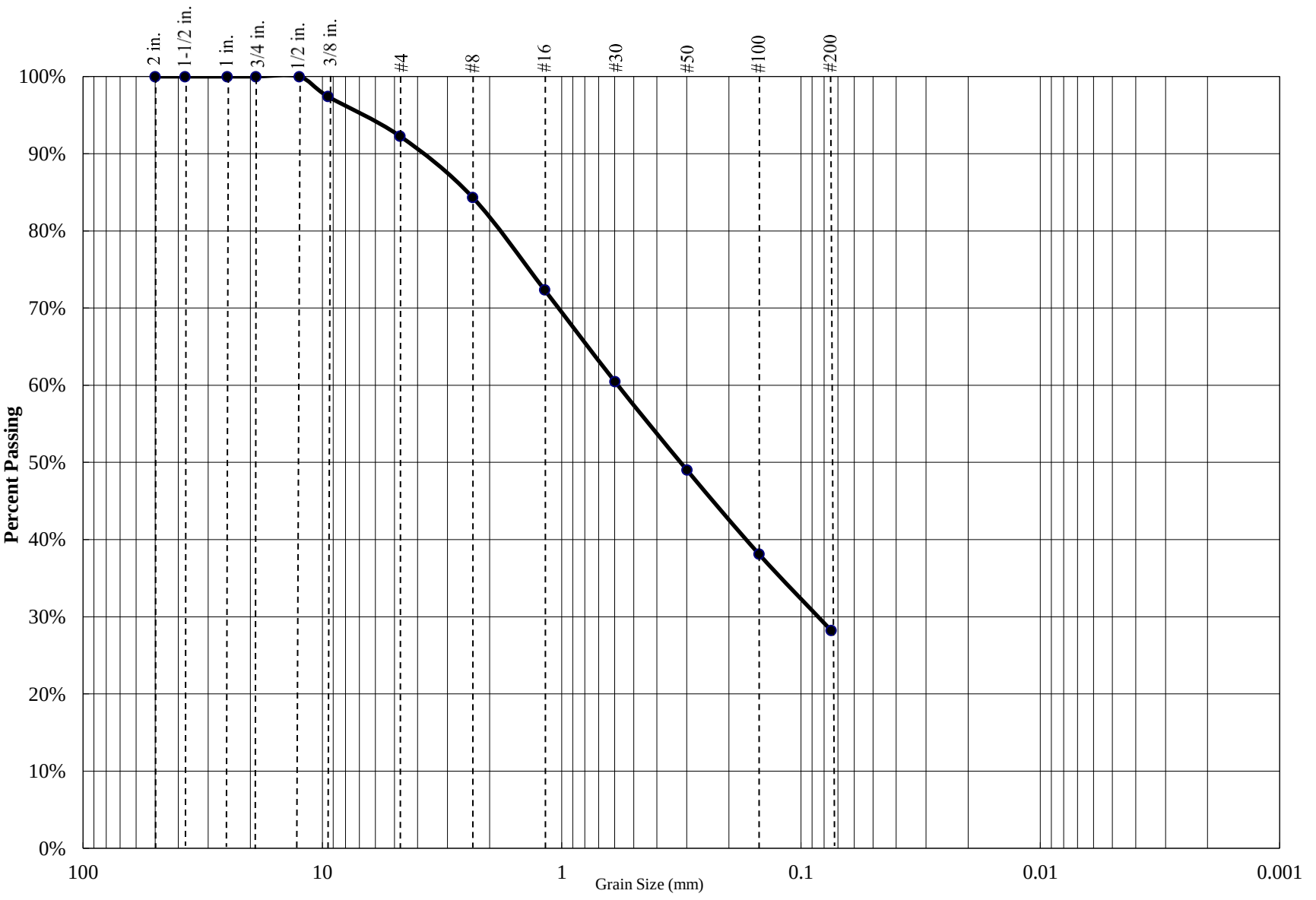
Project Number: 3-223-1034

Boring: B-13 @ 8.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
8%	64%	28%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	97.4%
#4	92.3%
#8	84.4%
#16	72.4%
#30	60.5%
#50	49.0%
#100	38.1%
#200	28.3%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

Project Number: 3-223-1034

Boring: B-15 @ 3.5'

SALEM engineering group, inc.

Atterberg Limits Determination
ASTM D4318

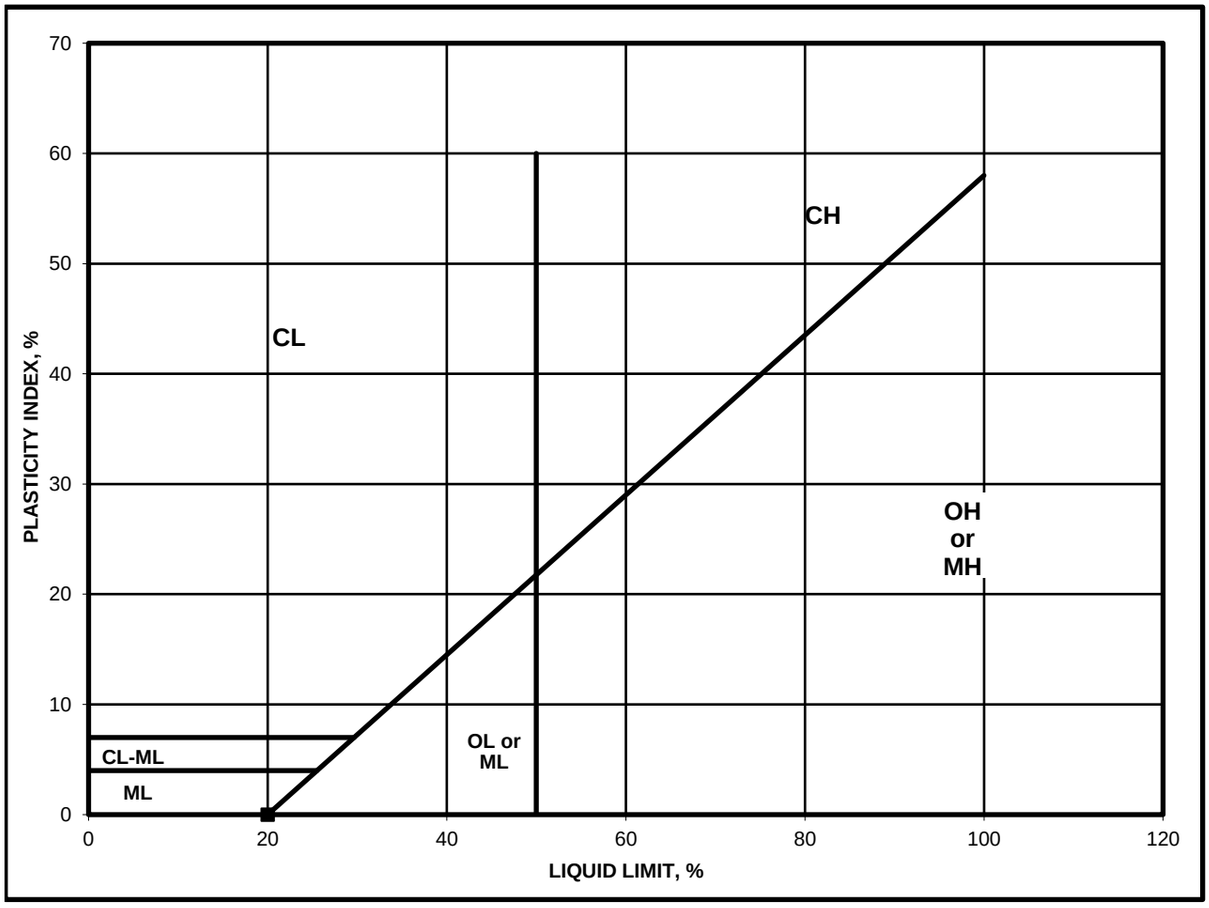
Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/25/23
Sampled By: SEG Tested By: MC
Sample Location: B-7 @ 0'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	21.95	21.08	21.31	30.42	30.57	29.74
Weight of Dry Soil & Tare	20.87	20.15	20.32	28.92	29.01	28.31
Weight of Water	1.08	0.93	0.99	1.50	1.56	1.43
Weight of Tare	15.56	15.51	15.48	21.48	21.45	21.48
Weight of Dry Soil	5.31	4.64	4.84	7.44	7.56	6.83
Water Content	20.3	20.0	20.5	20.2	20.6	20.9
Number of Blows				26	21	17

Plastic Limit : 20 **Liquid Limit : 20**

Plasticity Index : 0

Unified Soil Classification : ML



SALEM engineering group, inc.

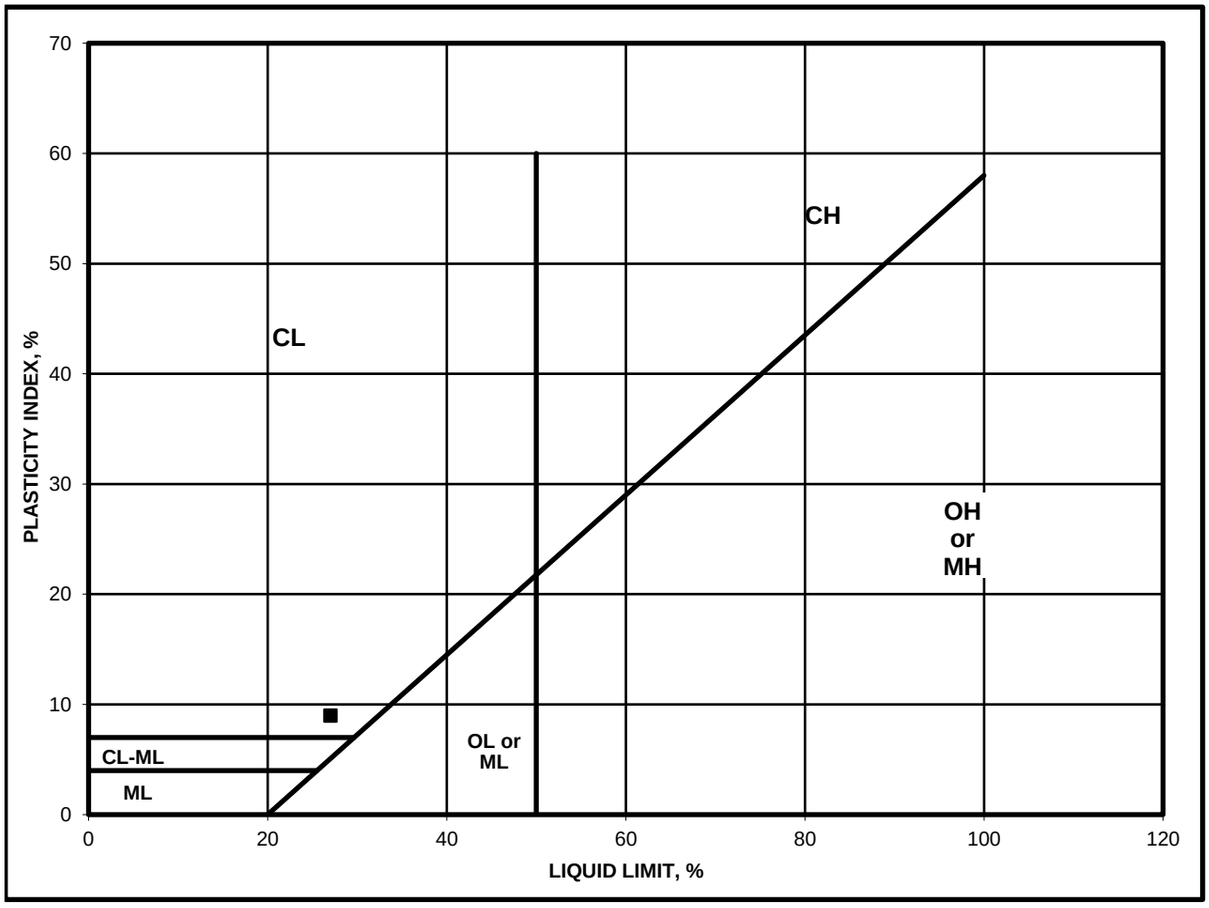
Atterberg Limits Determination
ASTM D4318

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/25/23
Sampled By: SEG Tested By: MC
Sample Location: B-11 @ 8.5'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	28.71	23.35	23.44	30.83	25.59	31.62
Weight of Dry Soil & Tare	27.51	22.19	22.27	28.74	23.48	29.40
Weight of Water	1.20	1.16	1.17	2.09	2.11	2.22
Weight of Tare	20.67	15.71	15.64	20.78	15.67	21.36
Weight of Dry Soil	6.84	6.48	6.63	7.96	7.81	8.04
Water Content	17.5	17.9	17.6	26.3	27.0	27.6
Number of Blows				31	27	23

Plastic Limit : 18 **Liquid Limit : 27**

Plasticity Index : 9
Unified Soil Classification : CL



SALEM engineering group, inc.

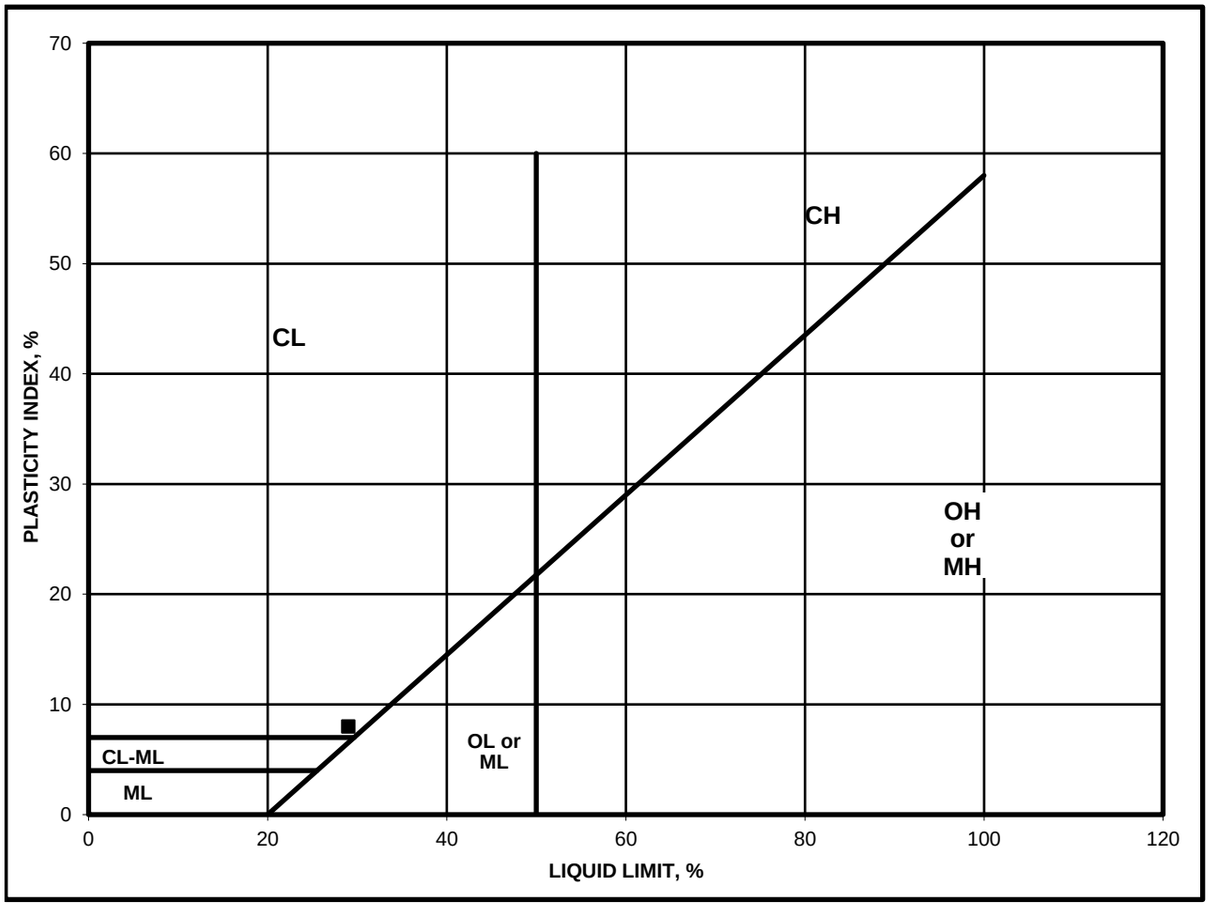
Atterberg Limits Determination
ASTM D4318

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/25/23
Sampled By: SEG Tested By: MC
Sample Location: B-15 @ 3.5'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	24.03	23.48	29.52	32.87	26.89	30.98
Weight of Dry Soil & Tare	22.57	22.12	28.04	30.28	24.37	28.65
Weight of Water	1.46	1.36	1.48	2.59	2.52	2.33
Weight of Tare	15.60	15.62	21.03	21.05	15.61	20.78
Weight of Dry Soil	6.97	6.50	7.01	9.23	8.76	7.87
Water Content	20.9	20.9	21.1	28.1	28.8	29.6
Number of Blows				29	22	17

Plastic Limit : 21 **Liquid Limit : 29**

Plasticity Index : 8
Unified Soil Classification : CL



SALEM
engineering group, inc.

EXPANSION INDEX TEST
ASTM D4829

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/24/23
Sampled By: SEG Tested By: MC
Sample Location: B-1 @ 0 - 4'
Soil Description: Silty Sand (SM)

Trial #	1	2	3
Weight of Soil & Mold, g.	605.4		
Weight of Mold, g.	187.8		
Weight of Soil, g.	417.6		
Wet Density, pcf	125.9		
Weight of Moisture Sample (Wet), g.	837.0		
Weight of Moisture Sample (Dry), g.	772.1		
Moisture Content, %	8.4		
Dry Density, pcf	116.2		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	50.4		

Time	Inital	30 min	1 hr	6 hrs	12 hrs	24 hrs
Dial Reading	0	-0.0057	-0.0058	--	--	-0.0061

Expansion Index $_{measured}$ = 0
Expansion Index $_{50}$ = 0.0

Expansion Index = **0**

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

SALEM engineering group, inc.

CHEMICAL ANALYSIS

SO_4 - Modified CTM 417 & Cl - Modified CTM 417/422

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/26/23
Sampled By: SEG Tested By: MC
Soil Description: Silty Sand (SM)

Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-1 @ 0 - 4'	< 50 mg/kg	53 mg/kg	6.9
1b.	B-1 @ 0 - 4'	< 50 mg/kg	53 mg/kg	6.9
1c.	B-1 @ 0 - 4'	< 50 mg/kg	53 mg/kg	6.9
Average:		**< 50 mg/kg**	**53 mg/kg**	**6.9**

SALEM
engineering group, inc.

CHEMICAL ANALYSIS

SO_4 - Modified CTM 417 & Cl - Modified CTM 417/422

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/26/23
Sampled By: SEG Tested By: MC
Soil Description: Silty Sand (SM)

Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-7 @ 0 - 4'	150 mg/kg	111 mg/kg	6.9
1b.	B-7 @ 0 - 4'	140 mg/kg	112 mg/kg	6.9
1c.	B-7 @ 0 - 4'	160 mg/kg	112 mg/kg	6.9
Average:		**150 mg/kg**	**112 mg/kg**	**6.9**

SALEM engineering group, inc.

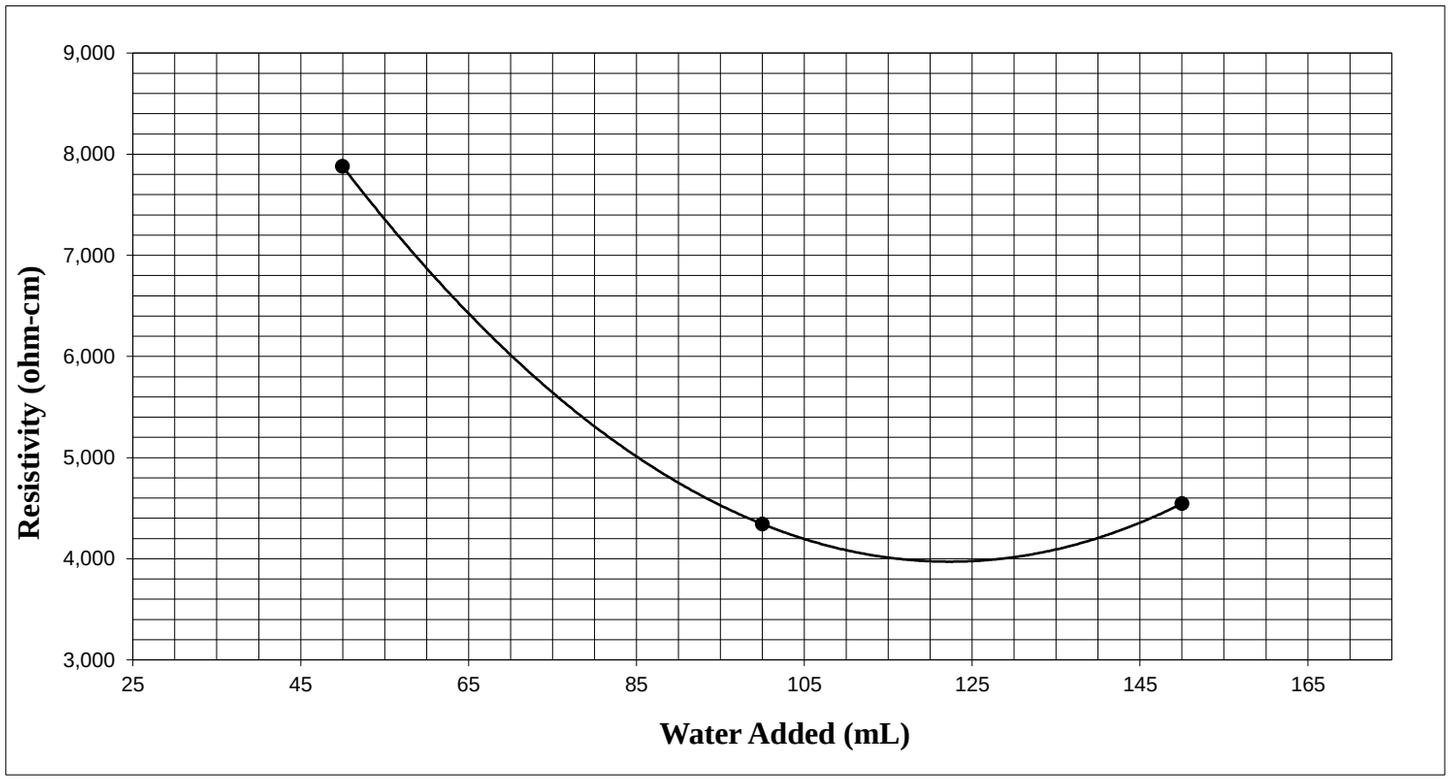
SOIL RESISTIVITY
CTM 643

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034 Date Sampled: 10/18/23
Sample Location: B-1 @ 0 - 4' Sampled By: SEG
Soil Description: Silty Sand (SM) Date Tested: 10/25/23 Tested By: PR

Chloride Content:	53	mg/Kg	Initial Sample Weight:	700	gms
Sulfate Content:	< 50	mg/Kg	Test Box Constant:	1.010	cm
Soil pH:	6.9				

Test Data:

Trial #	Water Added (mL)	Meter Dial Reading	Multiplier Setting	Resistance (ohms)	Resistivity (ohm-cm)
1	50	7.8	1,000	7,800	7,878
2	100	4.3	1,000	4,300	4,343
3	150	4.5	1,000	4,500	4,545



Minimum Resistivity:	**3,971** ohm-cm

SALEM engineering group, inc.

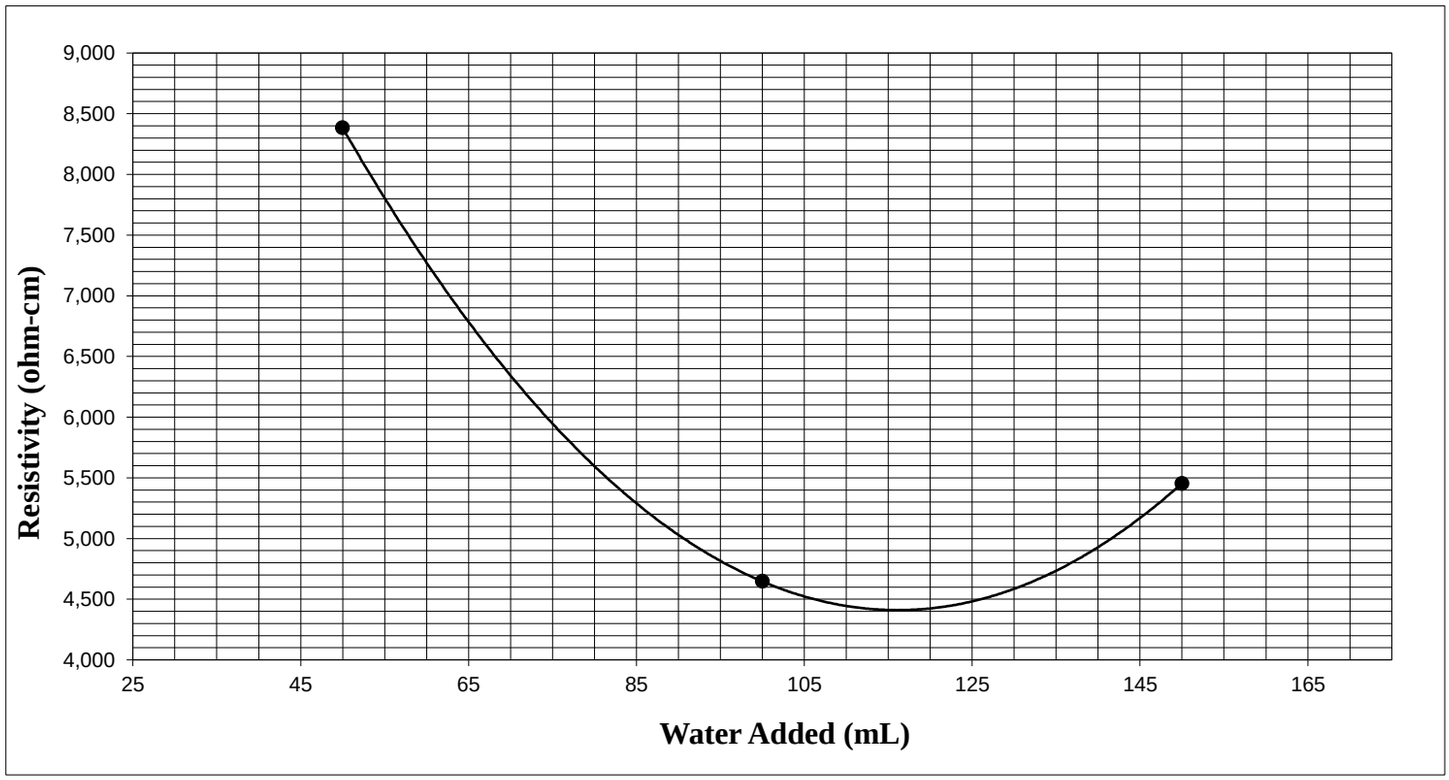
SOIL RESISTIVITY
CTM 643

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034 Date Sampled: 10/18/23
Sample Location: B-7 @ 0 - 4' Sampled By: SEG
Soil Description: Silty Sand (SM) Date Tested: 10/25/23 Tested By: PR

Chloride Content:	112	mg/Kg	Initial Sample Weight:	700	gms
Sulfate Content:	150	mg/Kg	Test Box Constant:	1.010	cm
Soil pH:	6.9				

Test Data:

Trial #	Water Added (mL)	Meter Dial Reading	Multiplier Setting	Resistance (ohms)	Resistivity (ohm-cm)
1	50	8.3	1,000	8,300	8,383
2	100	4.6	1,000	4,600	4,646
3	150	5.4	1,000	5,400	5,454

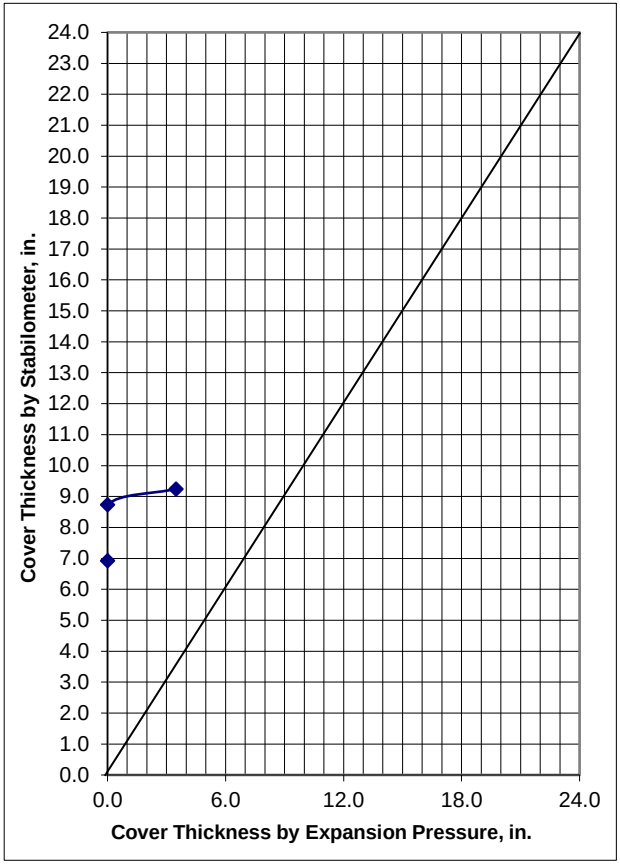


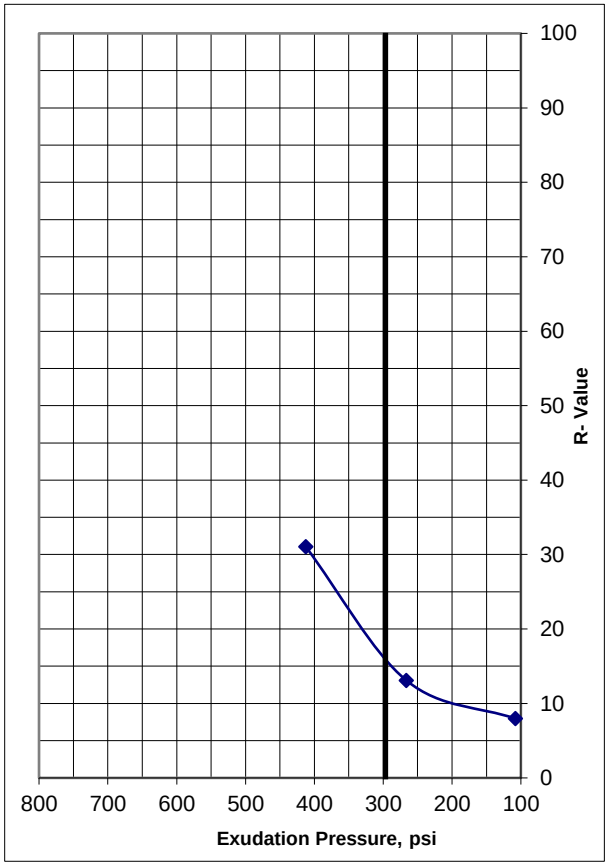
Minimum Resistivity:	**4,410** ohm-cm

SALEM engineering group, inc.

Resistance R-Value
and Expansion Pressure of Compacted Soils
ASTM D2844

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/30/23
Sampled By: SEG Tested By: JT
Sample Location: B-1 @ 0 - 4'
Soil Description: Silty Sand (SM)





Specimen	1	2	3
Exudation Pressure, psi	412.4	266.3	107.8
Moisture at Test, %	7.4	8.0	9.1
Dry Density, pcf	134.0	133.1	127.3
Expansion Pressure, psf	0	0	377
Thickness by Stabilometer, in.	6.9	8.7	9.2
Thickness by Expansion Pressure, in.	0.0	0.0	3.5
R-Value by Stabilometer	31	13	8
R-Value by Expansion Pressure	N/A		
R-Value at 300 psi Exudation Pressure	16		

Controlling R-Value	**16**

SALEM engineering group, inc.

Thermal Conductivity by Thermal Probe, ASTM D5334-14

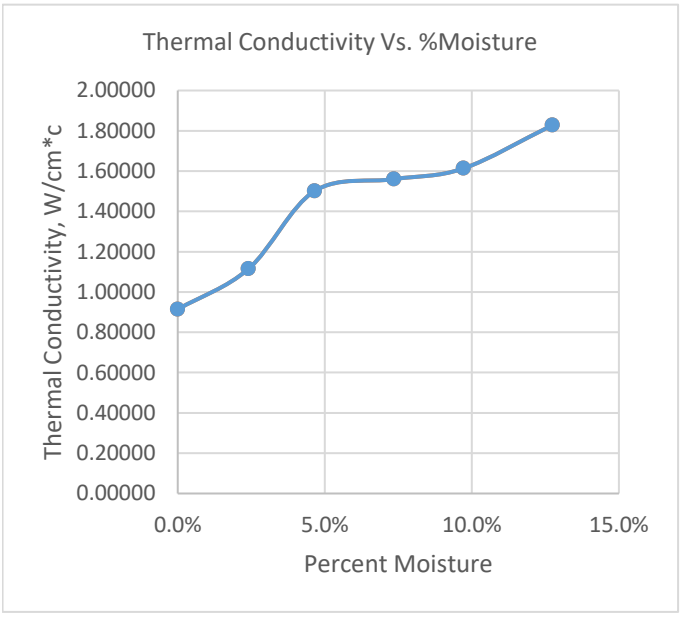
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

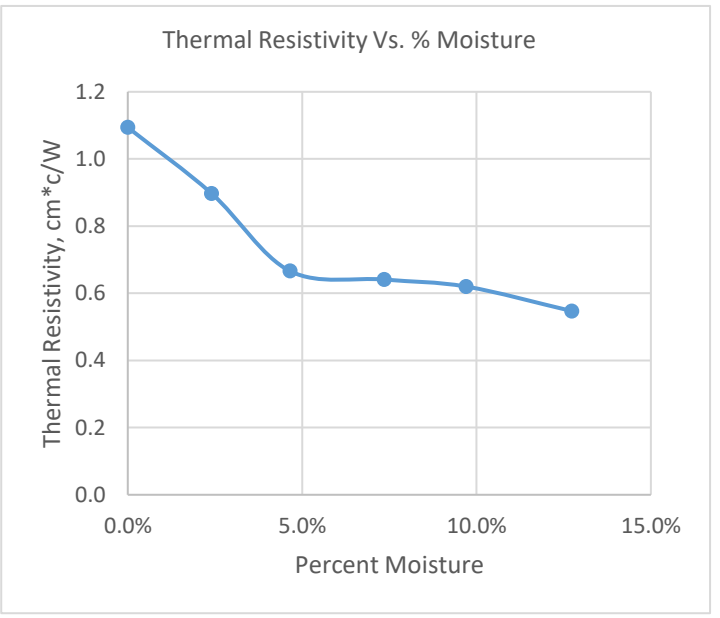
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-4
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.7

Wet Weight, gm	866.1	892.4	917.0	938.4	963.1	986.3
Dry Weight, gm	866.1	870.9	874.3	869.4	869.6	860.6
Moisture Content, %	0.0%	2.4%	4.7%	7.4%	9.7%	12.7%
Average Length, in	6.30	6.20	6.10	6.00	5.80	6.00
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	113.9	116.4	119.0	120.7	125.4	120.8
Remolded Compaction, %	85%	87%	89%	90%	94%	90%
Thermal Conductivity, W/cm*c°	0.914	1.115	1.502	1.560	1.613	1.828
Thermal Resistivity, cm*c°/W	1.094	0.897	0.666	0.641	0.620	0.547





SALEM engineering group, inc.

Thermal Conductivity by Thermal Probe, ASTM D5334-14

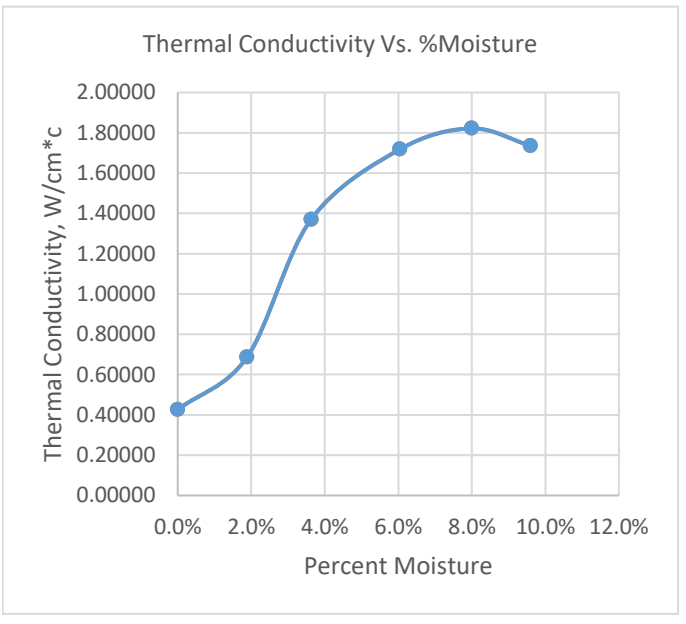
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

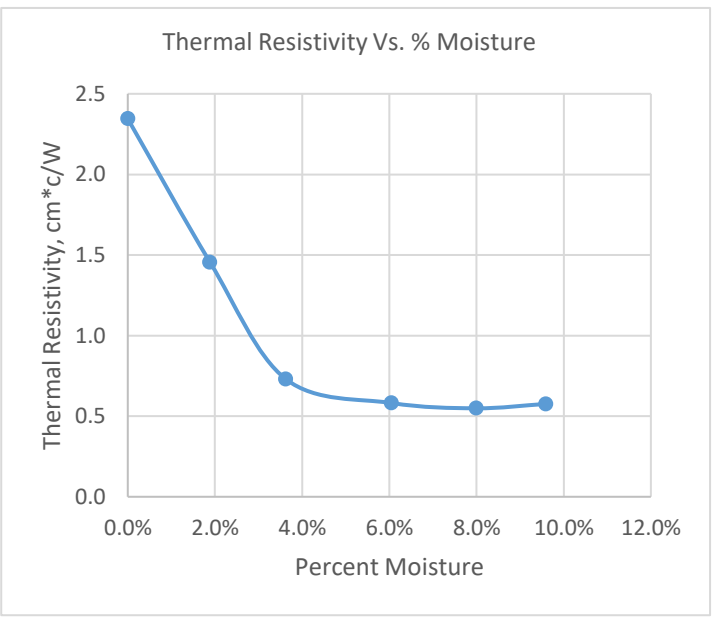
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-4
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.7

Wet Weight, gm	916.0	936.3	955.1	977.8	996.7	1015.2
Dry Weight, gm	916.0	918.7	920.5	918.7	917.1	917.9
Moisture Content, %	0.0%	1.9%	3.6%	6.0%	8.0%	9.6%
Average Length, in	6.30	6.10	6.20	6.00	6.00	6.00
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	120.4	124.8	123.1	127.3	127.4	127.9
Remolded Compaction, %	90%	93%	92%	95%	95%	96%
Thermal Conductivity, W/cm*c°	0.426	0.687	1.370	1.718	1.821	1.736
Thermal Resistivity, cm*c°/W	2.345	1.456	0.730	0.582	0.549	0.576





Thermal Conductivity by Thermal Probe, ASTM D5334-14

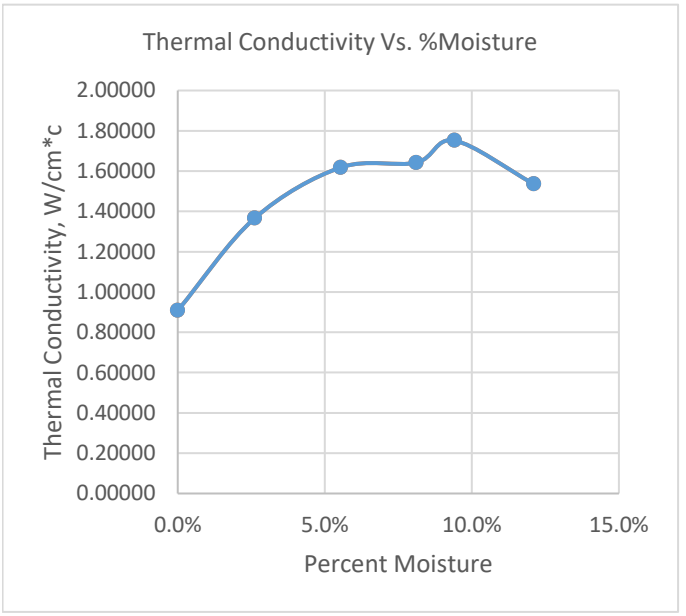
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

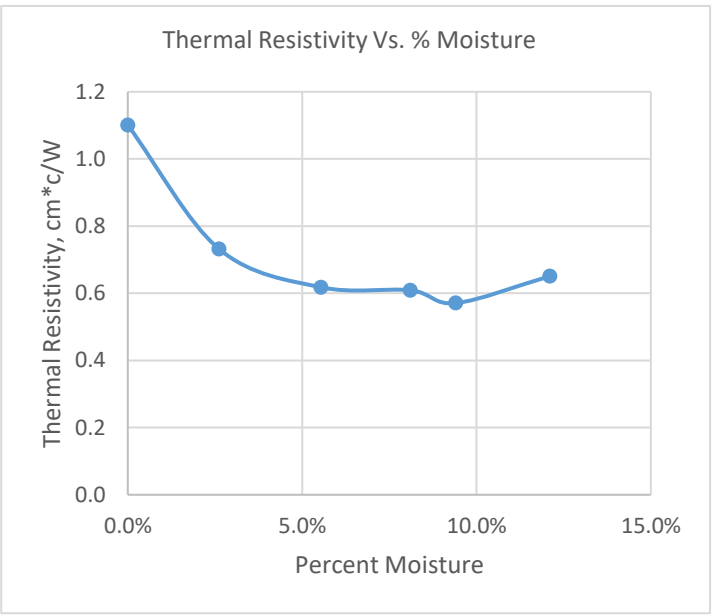
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-13
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.8

Wet Weight, gm	867.1	891.9	917.2	940.3	964.3	986.5
Dry Weight, gm	867.1	868.6	866.4	864.1	873.6	867.1
Moisture Content, %	0.0%	2.6%	5.5%	8.1%	9.4%	12.1%
Average Length, in	6.30	6.10	6.10	6.00	6.00	6.20
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	114.0	118.0	118.0	120.1	121.7	117.5
Remolded Compaction, %	85%	88%	88%	90%	91%	88%
Thermal Conductivity, W/cm*c°	0.908	1.366	1.618	1.642	1.751	1.536
Thermal Resistivity, cm*c°/W	1.101	0.732	0.618	0.609	0.571	0.651





Thermal Conductivity by Thermal Probe, ASTM D5334-14

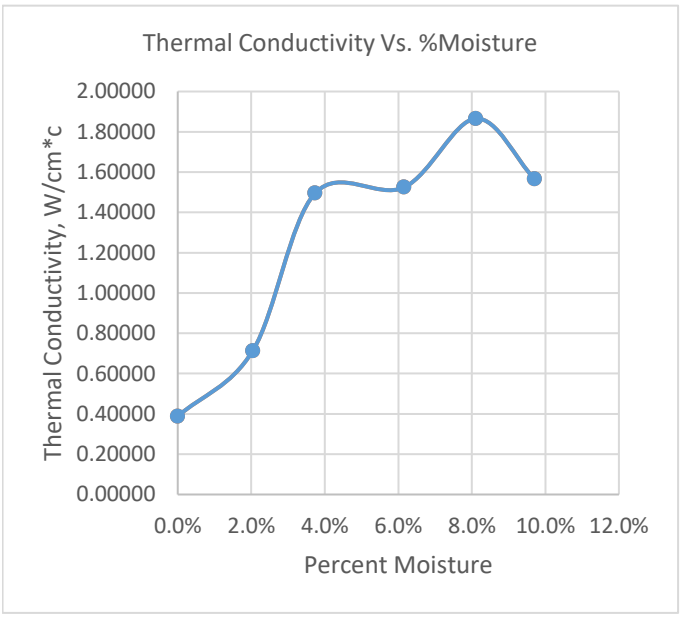
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

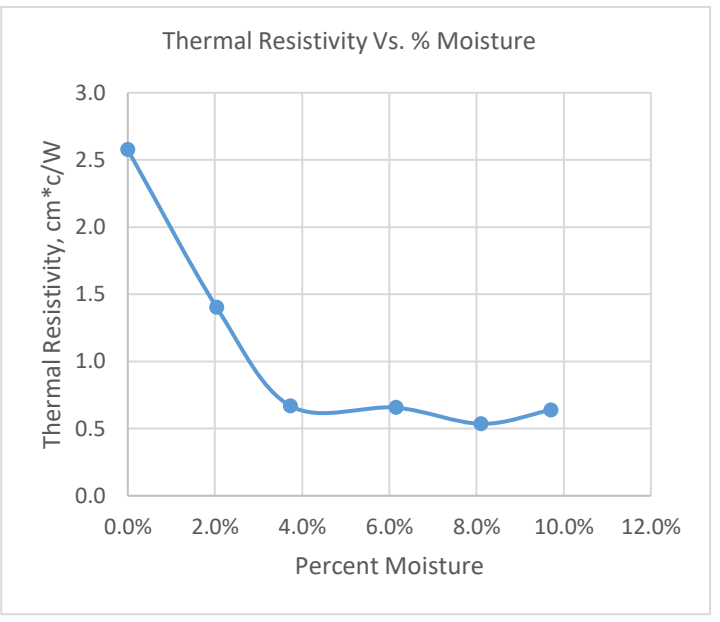
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-13
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.8

Wet Weight, gm	916.1	936.1	960.1	976.8	995.6	1016.9
Dry Weight, gm	916.1	917.0	924.2	916.7	914.9	918.2
Moisture Content, %	0.0%	2.0%	3.7%	6.2%	8.1%	9.7%
Average Length, in	6.30	6.00	6.10	6.10	6.00	6.10
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	120.4	126.6	125.7	124.9	127.1	125.9
Remolded Compaction, %	90%	95%	94%	93%	95%	94%
Thermal Conductivity, W/cm*c°	0.388	0.713	1.495	1.524	1.866	1.565
Thermal Resistivity, cm*c°/W	2.576	1.402	0.669	0.656	0.536	0.639





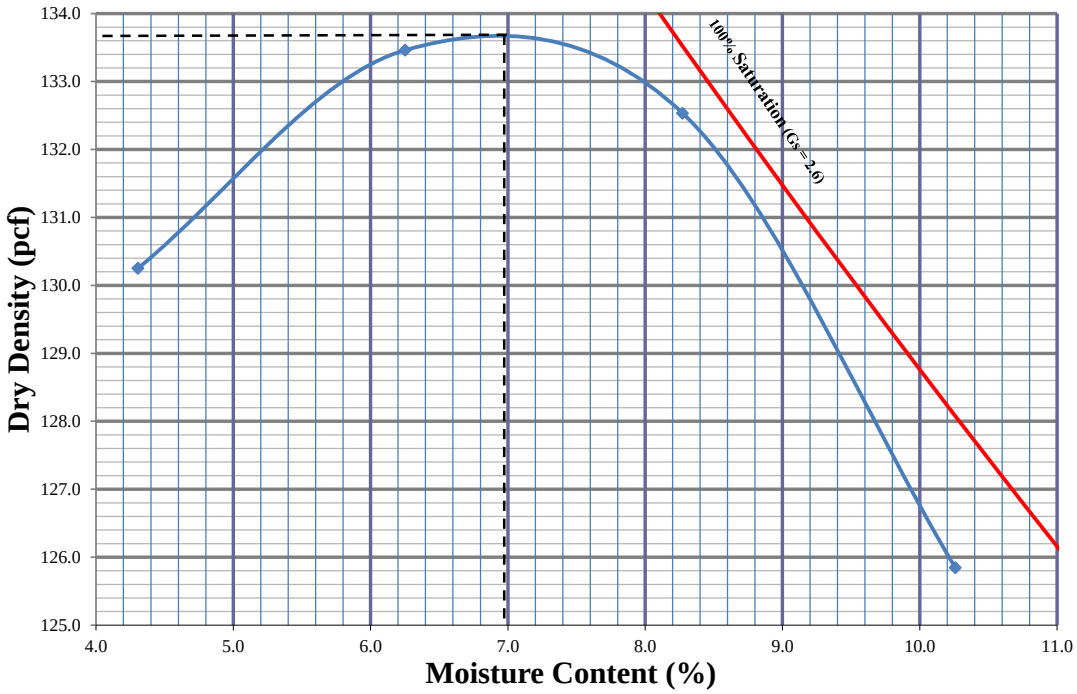
SALEM
engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Office: (559) 271-9700
Fax: (559) 275-0827

Laboratory Compaction Curve

(ASTM D1557, Method A)

Report to:	N/A	Date Sampled:	10/18/2023
Project Name:	Solar & Bess Lancaster	Date Tested:	10/25/2023
Sample Location:	S-1: B-4	Project No.:	3-223-1034
Soil Description:	Brown - Cohesive - Clayey Sand	Depth:	0' - 4'
Soil Described By:	ASTM D2488	Specific Gravity:	2.6
Percent Retained on 3/4":	0.0%	Sampled By:	N/A
Percent Retained on 3/8":	0.0%	Tested By:	A. Vega
Percent Retained on No. 4:	0.0%	Sample I.D.	1435-23
Percent Coarse Aggregate:	0.0%	Preparation Method:	☑ Moist ☐ Dry
As-Received Moisture:	2.3%	Type of Rammer Used:	☐ Manual ☑ Mechanical



Test Results	
Maximum Dry Density (pcf):	**133.7**
Optimum Moisture Content (%):	**7.0**

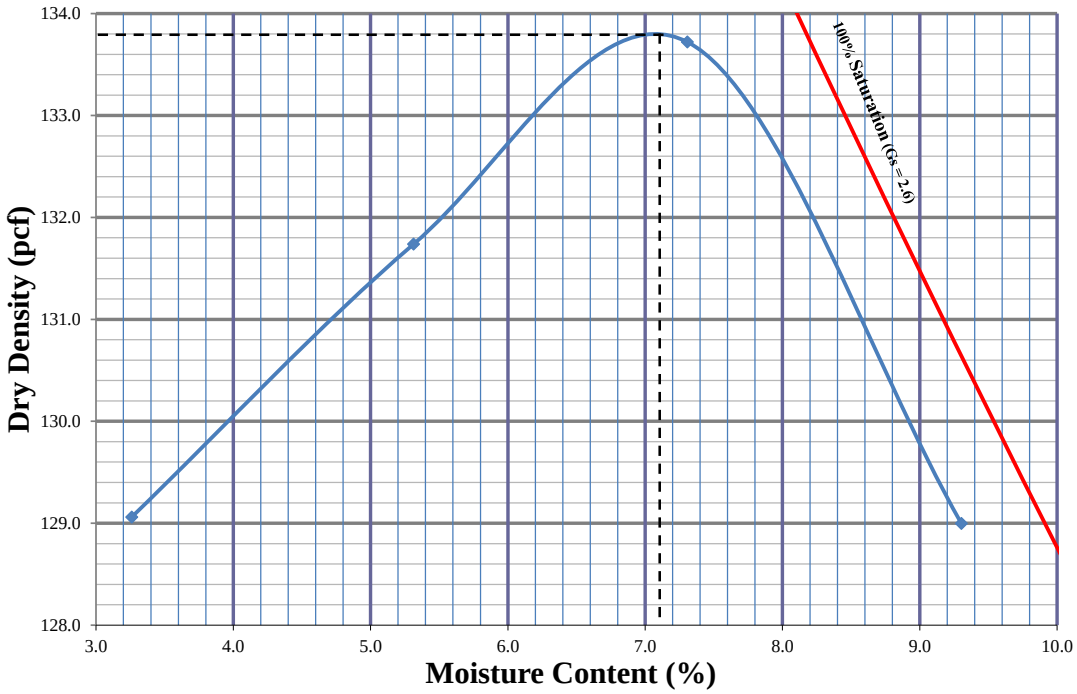
SALEM
engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Office: (559) 271-9700
Fax: (559) 275-0827

Laboratory Compaction Curve

(ASTM D1557, Method A)

Report to:	N/A	Date Sampled:	10/18/2023
Project Name:	Solar & Bess Lancaster	Date Tested:	10/25/2023
Sample Location:	S-2: B-13	Project No.:	3-223-1034
Soil Description:	Brown - Cohesive - Clayey Sand	Depth:	0' - 4'
Soil Described By:	ASTM D2488	Specific Gravity:	2.6
Percent Retained on 3/4":	0.0%	Sampled By:	N/A
Percent Retained on 3/8":	0.0%	Tested By:	A. Vega
Percent Retained on No. 4:	0.0%	Sample I.D.	1436-23
Percent Coarse Aggregate:	0.0%	Preparation Method:	☑ Moist ☐ Dry
As-Received Moisture:	3.3%	Type of Rammer Used:	☐ Manual ☑ Mechanical



Test Results	
Maximum Dry Density (pcf):	**133.8**
Optimum Moisture Content (%):	**7.1**

APPENDIX

C

APPENDIX C
GENERAL EARTHWORK AND PAVEMENT SPECIFICATIONS

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

1.0 SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including, but not limited to, the furnishing of all labor, tools and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans and disposal of excess materials.

2.0 PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of SALEM Engineering Group, Incorporated, hereinafter referred to as the Soils Engineer and/or Testing Agency. Attainment of design grades, when achieved, shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary adjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer, or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

3.0 TECHNICAL REQUIREMENTS: All compacted materials shall be densified to no less that 95 percent of relative compaction (90 percent for cohesive soils) based on ASTM D1557 Test Method (latest edition), UBC or CAL-216, or as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

4.0 SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the Geotechnical Engineering Report. The Contractor shall make his own interpretation of the data contained in the Geotechnical Engineering Report and the Contractor shall not be relieved of liability for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

5.0 DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or wind-blown materials attributable to his work. Site preparation shall consist of site clearing and grubbing and preparation of foundation materials for receiving fill.

6.0 CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed improvement areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots greater than 1 inch in diameter. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations is not permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

7.0 SUBGRADE PREPARATION: Surfaces to receive Engineered Fill and/or building or slab loads shall be prepared as outlined above, scarified to a minimum of 12 inches, moisture-conditioned as necessary, and recompacted to 95 percent relative compaction (90 percent for cohesive soils).

Loose soil areas and/or areas of disturbed soil shall be moisture-conditioned as necessary and recompacted to 95 percent relative compaction (90 percent for cohesive soils). All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any fill material.

8.0 EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

9.0 FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence or approval of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills, provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

10.0 PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. Compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer. Both cut and fill shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

11.0 SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill is as specified.

12.0 DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term “Standard Specifications”: hereinafter referred to, is the most recent edition of the Standard Specifications of the State of California, Department of Transportation. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as determined by ASTM D1557 Test Method (latest edition) or California Test Method 216 (CAL-216), as applicable.

13.0 PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 95 percent based upon ASTM D1557. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

14.0 AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class II material, ¾-inch or 1½-inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

15.0 AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class II Subbase material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216, and it shall be spread and compacted in accordance with the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

16.0 ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10, unless otherwise stipulated or local conditions warrant more stringent grade. The mineral aggregate shall be Type A or B, ½ inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39. The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in the Standard Specifications. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

Appendix G

Greenhouse Gas Emissions Technical Memorandum

Kimley»Horn

TECHNICAL MEMORANDUM

To: RPCA Solar 12, LLC

From: Olivia Chan and Mayra Garcia, Kimley-Horn and Associates, Inc.

Date: April 11, 2025

Subject: 230th Street Solar Project – Greenhouse Gas Emissions Technical Memorandum

PURPOSE

The purpose of this memorandum is to assess potential impacts due to greenhouse gas (GHG) emissions associated with construction and operation of the 230th Street Solar Project (Project), proposed to be located in unincorporated Los Angeles County, California.

PROJECT LOCATION

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W in Lancaster (see **Figure 1: Regional Vicinity Map**). The Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west (see **Figure 2: Local Vicinity Map**). Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25 miles to the south. Local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W.

PROJECT DESCRIPTION

RPCA Solar 12, LLC (Applicant) proposes to construct and operate a single-axis tracker ground-mounted photovoltaic (PV) community solar and battery energy storage system (BESS) with up to approximately 4.99 megawatts of alternating current (MWac) in capacity. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance.

The BESS would store electrical energy produced by the Project during the day and flexibility dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of four battery banks with energy storage capacity located in the southwest corner of the PV array. Each battery bank would be approximately the size of a typical shipping container. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection, and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

Site access would be provided via a new driveway constructed from 230th Street W. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The access roads would encircle the whole array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site Boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. As little as 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.

The Project proposes a 10-foot landscape buffer between the fence and the access road on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8. The Project would be enclosed in a six foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24-hour access for emergency responders.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as January 2026.[1] Project construction activities generally fall into six main categories: (1) demolition; (2) site preparation (vegetation clearing); (3) grading; (4) paving; (5) system installation; and (6) testing, commissioning, and cleanup.[2] Construction personnel will be divided between civil and electrical services. During Project construction, non-potable water would be required for common construction-related purposes, including but not limited dust

[1] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.

[2] Note that the modeling does not account for testing, commissioning, and cleanup as heavy-duty construction equipment would not be utilized.

suppression, soil compaction, and grading. No new water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction.

Operations

The Project would operate year-round. The Project Site would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

During Project O&M, it is anticipated that minimal water would be required for solar panel washing. Water consumption for washing panels is expected to be approximately 0.2 acre-feet (AF) of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge (inundation of water), and no chemicals or other materials are used. It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department standards. The water tank shall have a Los Angeles County Fire Department supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning complies with all applicable local, State, and federal requirements and best management practices (BMPs). The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

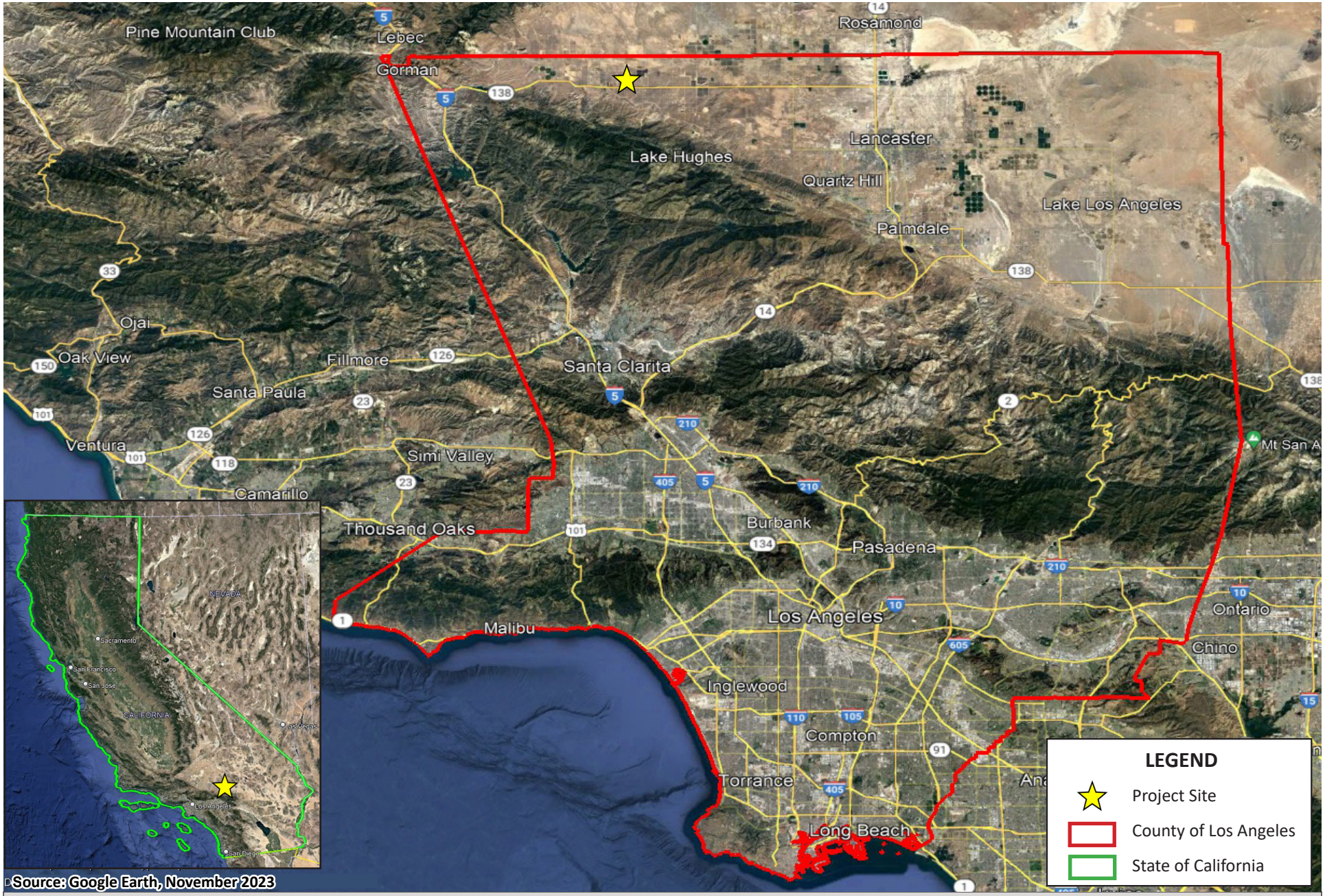


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

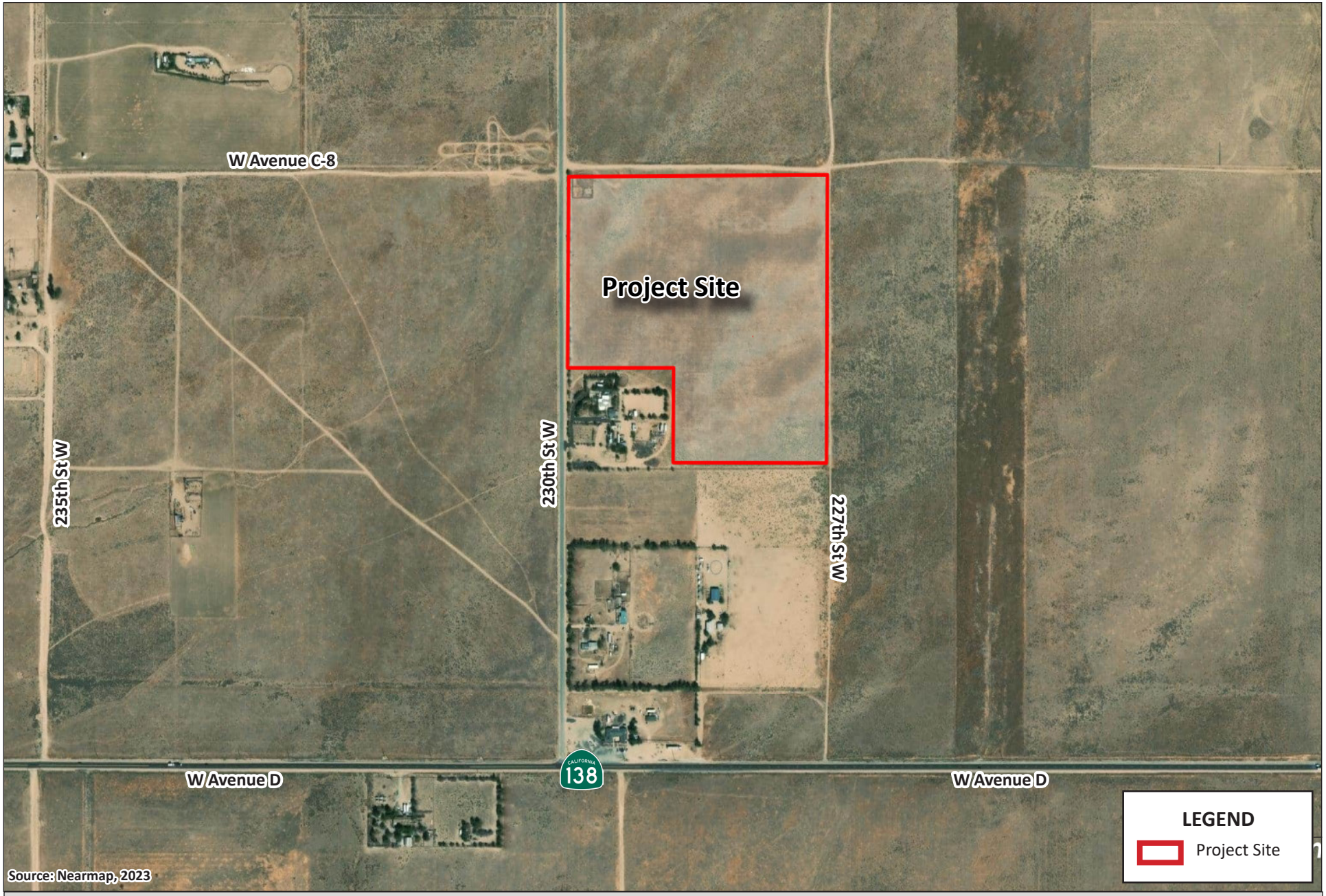


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

ENVIRONMENTAL SETTING

Greenhouse Gases and Climate Change

Certain gases in the Earth's atmosphere classified as GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters the Earth's atmosphere from space. A portion of the radiation is absorbed by the Earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the Earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the Earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere.[3] **Table 1: Description of Greenhouse Gases** describes the primary GHGs attributed to global climate change, including their physical properties.

[3] Intergovernmental Panel on Climate Change, Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf, accessed December 19, 2023.

Table 1: Description of Greenhouse Gases	
Greenhouse Gas	**Description**
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (Global Warming Potential [GWP] of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years. The GWP of N_2O is 298.
Methane (CH_4)	CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH_4 is about 12 years and the GWP is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year GWP of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. GWPs range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. GWPs for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The GWP of SF_6 is 23,900.
Hydrochlorofluoro-carbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year GWPs of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.

Table 1: Description of Greenhouse Gases	
Nitrogen Trifluoride (NF_3)	NF_3 was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high GWP of 17,200.
Source: Compiled from USEPA, *Overview of Greenhouse Gases*, (https://www.epa.gov/ghgemissions/overview-greenhouse-gases), accessed August 24, 2023; USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019*, 2021; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; USEPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.	

REGULATORY FRAMEWORK

Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency (USEPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. USEPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the USEPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the USEPA's assessment of the scientific evidence that form the basis for the USEPA's regulatory actions.

Presidential Executive Orders 13990 and 14008

On January 20, 2021, President Biden issued Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." Executive Order 13990 directs Federal agencies to immediately review and take action to address the promulgation of Federal regulations and other actions that conflict with these important national objectives and to immediately commence work to confront the climate crisis. Executive Order 13990 directs the Council on Environmental Quality (CEQ) to review CEQ's 2020 regulations implementing the procedural requirements of the National Environmental Policy Act (NEPA) and identify necessary changes or actions to meet the objectives of Executive Order 13990.

Executive Order 13390 also directs the USEPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks," promulgated in April 2020.

On January 27, 2021, President Biden signed Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," to declare the Administration's policy to move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories. In line with these Executive Order directives, CEQ is reviewing the 2020 NEPA regulations and plans to publish a notice of proposed rulemaking (NPRM) to identify necessary revisions in order to comply with the law; meet the environmental, climate change, and environmental justice objectives of Executive Orders 13990 and 14008; ensure full and fair public involvement in the NEPA process; provide regulatory certainty to stakeholders; and promote better decision making consistent with NEPA's statutory requirements. This phase 1 rulemaking will propose a narrow set of changes to the 2020 NEPA regulations to address these goals.

State

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO_2 equivalents (CO_2e) in the world and produced 459 million gross metric tons of CO_2e in 2013. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards,

were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

Assembly Bill (AB) 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

California Air Resource Board Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual").[4] The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions and additional GHG reduction measures by both CARB and the State's Climate Action Team, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program.[5] Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several sustainable community strategies have been adopted).
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).

---

4 CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

5 The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.
- The California Sustainable Freight Action Plan was developed in 2016 and provides a vision for California's transition to a more efficient, more economically competitive, and less polluting freight transport system. This transition of California's freight transport system is essential to supporting the State's economic development in coming decades while reducing pollution.
- CARB's Mobile Source Strategy demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years. The Mobile Source Strategy includes increasing zero emission buses and trucks.

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO_2e ($MMTCO_2e$) to 545 $MMTCO_2e$. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. By 2016, California had reduced GHG emissions below 1990 levels, achieving AB 32's 2020 goal four years ahead of schedule.

In 2016, the Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017, CARB adopted a second update to the Scoping Plan.[6] The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other Federal actions.

[6] California Air Resources Board (CARB), *2017 Climate Change Scoping Plan,* https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed December 19, 2023.

The 2022 Scoping Plan is the most recent and comprehensive Scoping Plan. The 2022 Scoping Plan address recent legislation targets to reduce anthropogenic emissions to 85 percent below 1990 levels by 2045.[7]

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the USEPA's denial of an implementation waiver. The USEPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions. In 2019 the USEPA published the SAFE Rule that revoked California's waiver. However, the USEPA is currently reconsidering the SAFE rule pursuant to Presidential Executive Order 13390.

SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The CPUC adopted the regulations required by SB 1368 on August 29, 2007.

[7] California Air Resources Board (CARB), 2022 Scoping Plan for Achieving Carbon Neutrality.https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed December 19, 2023.

The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO_2 per megawatt-hour.

SB 1078 and SBX1-2 (Renewable Electricity Standards)

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SBX1-2 codified the 33 percent by the 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 25 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans)

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

AB 1346 (Air Pollution: Small Off-Road Engines)

Signed into Law in October 2021, AB 1346 requires CARB, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, consistent with federal law, by July 1, 2022. AB 1346 requires CARB to identify and, to the extent feasible, make available funding for commercial rebates or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05. Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07. Issued on January 18, 2007, Executive Order S 01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009.

Executive Order S-13-08. Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08. Issued on November 17, 2008, Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09. Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standards (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15. Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of $MMTCO_2e$. The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18. Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20. Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

California Regulations

CARB Advanced Clean Truck Regulation. CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- Zero-Emission Truck Sales: Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- Company and Fleet Reporting: Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Regional

Southern California Association of Governments 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy [2020 RTP/SCS]). The RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The RTP/SCS is a long-range vision plan that balances future mobility and housing needs with economic, environmental, and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions.

Local

Antelope Valley Air Quality Management District (AVAQMD)

The AVAQMD's CEQA and Federal Conformity Guidelines identifies both annual and daily construction significant thresholds for GHG emissions of 100,000 $MTCO_2e$ and 548,000 pounds CO_2e, respectively.[8] The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the Proposed Project, the AVAQMD's numeric thresholds are used as the significance thresholds in addition to a qualitative discussion of the Project's compliance with applicable plans, policies, regulations, and requirements.

Antelope Valley Area Plan

The Antelope Valley Area Plan (AVAP), adopted June 2015, consists of the following goals and policies that area applicable to the proposed Project[9]:

Land Use Element

Goal LU 5: A land use pattern that decreases greenhouse gas emissions.

> Policy LU 5.1: Ensure that development is consistent with the sustainable Communities Strategy adopted in 2012, an element of the Regional Transportation Plan developed by the Southern California Association of Governments.

Conservation and Open Space Element

Goal COS 9: Improved air quality in the Antelope Valley

> Policy COS 9.4: Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.

Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.

> Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed.

---

8 Antelope Valley AQMD, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2016, https://www.avaqmd.ca.gov/files/e5b34d385/AV+CEQA+Guides+2016.pdf, accessed April 10, 2025.

9 County of Los Angeles, Antelope Valley Area Plan Town and County June 2015, https://case.planning.lacounty.gov/assets/upl/project/tnc_draft-20150601.pdf, accessed December 19,2023.

Goal COS 13: Utility-scale energy production facilities for off-site use that reduce consumption of non-renewable resources while minimizing the impacts on natural resources and existing communities.

> Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.

Los Angeles County General Plan 2035

The Los Angeles County General Plan 2035 establishes the long range vision, goals, policies, and programs for the unincorporated areas of Los Angeles County.[10] The goals and policies outlined in the Air Quality Element are relevant to the proposed Project:

Air Quality Element

Goal AQ 1: Protection from exposure to harmful air pollutants

> Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.

Goal AQ 3: Implementation of plans and programs to address the impacts of climate change.

> Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.

Final Unincorporated Los Angeles County Community Climate Action Plan 2020

The Unincorporated Los Angeles County Community Climate Action Plan (CCAP), adopted in 2015 is a component of the Los Angeles County General Plan 2035 and describes the County's plan for reducing GHG emissions.[11] The following goals and policies are relevant to the proposed Project:

BE-3: Solar Installations

> Action Goal: Promote and incentivize solar installation for new and existing homes, commercial buildings, carports, and parking areas, water heaters, and warehouses.

BE-4: Alternative Renewable Energy Program Goal

---

[10] County of Los Angeles Department of Regional Planning, General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 19, 2023.

[11] County of Los Angeles Department of Regional Planning, Unincorporated Los Angeles County Community Climate Action Plan 2020, https://case.planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf, accessed December 19, 2023.

Implement pilot projects for currently feasible wind, geothermal, and other forms of alternative renewable energy.

LUT-9: Idling Reduction Goal

Action Goal: Encourage idling limits of 3 minutes for heavy-duty construction equipment as feasible within manufacturer's specifications.

LUT-12: Electrify Construction and Landscaping Equipment.

Action Goal: Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Project would have a significant impact in regard to GHG emissions if one or more of the following would occur:

Threshold a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact GHG-1); or

Threshold b): Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact GHG-2).

IMPACT ANALYSIS

Impact GHG-1: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Project-related GHG emissions are not confined to a particular air basin; instead, GHG emissions are dispersed worldwide. No single project is large enough to result in a measurable increase in global concentration of GHG emissions. Therefore, impacts identified below are not project-specific impacts to global climate change, but the Project's contribution to this cumulative impact. The Project would result in direct and indirect GHG emissions. Direct GHG emissions include emissions from construction and decommissioning activities, and mobile sources, while indirect sources include emissions from energy consumption and water demand. The California Emissions Estimator Model (CalEEMod), version 2022.1.1.21, was used to estimate direct and indirect Project-related GHG emissions.

Construction

The Project would result in direct emissions of GHGs from construction. The approximate quantity of annual GHG emissions generated by Project construction equipment is depicted in **Table 2: Construction-Related Greenhouse Gas Emissions**.

Table 2: Construction-Related Greenhouse Gas Emissions	
Category	**$MTCO_2e$**
Construction	329
Water Usage[1]	2.41
Total Construction	331.41
30-Year Amortized Construction	11
1. Construction water usage emissions are based on an anticipated consumption of 13 (AF) during construction. During construction, water is anticipated to be supplied from an off-site source.	
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix A** for model outputs.	

As shown in **Table 2**, the Project would result in the generation of approximately 331.41 $MTCO_2e$ over the course of construction. Construction GHG emissions are typically summed and amortized over a 30-year period, then added to the operational emissions.[12] The amortized Project construction emissions would be 11 $MTCO_2e$ per year. Once construction is complete, the generation of these GHG emissions would cease.

Operations

Operational or long-term emissions occur over the life of the Project. Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. Total GHG emissions from both construction and operation associated with the Project are summarized in **Table 3: Project Greenhouse Gas Emissions**.

Table 3: Project Greenhouse Gas Emissions			
Emissions Source	**Annual $MTCO_2e$**	**Annual CO_2e (ton)**	**Daily CO_2e (pounds)**
Construction	*11*	*12.2*	*7,917*
Operations			
Area Source	19.8	21.8	242.0
Energy	0.0	0.0	0.0
Mobile	56.8	62.6	481
Waste	0.0	0.0	0.0
Water	0.0	0.0	0.0
Decommissioning	11	12.2	7,917

12 The amortization period of 30-years is based on the standard assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13,* August 26, 2009).

Total Project Emissions	***98.7***	***108.8***	***16,557***
AVAQMD Threshold	--	*100,000*	*548,000*
Exceeds Threshold?	**--**	**No**	**No**
Source: CalEEMod version 2022.1.1.21 Refer to **Appendix A** for model outputs (Annual $MTCO_2e$ and pounds per day). 1 $MTCO_2e$ = 1.10231 tons.			

Each operational source of GHG emissions is described below.

- **Area Source Emissions**. Area source emissions would be generated due to potential BESS architectural coatings. Other typical area sources (e.g., consumer products, landscaping equipment, etc.) would not be utilized by the Project.
- **Energy Source Emissions**. Energy source emissions would be generated due to electricity usage associated with the Project. The Project's operational activities would not consume natural gas. The Project would consume negligible amounts of electricity for auxiliary equipment, such as BESS HVAC units, communications equipment, and lighting.
- **Mobile Source Emissions.** Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, reactive organic gasses (ROG), NO_X, SO_X, PM10, and PM2.5 are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM10, and PM2.5); however, CO tends to be a localized pollutant, dispersing rapidly at the source.

During operations, the Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities. In addition, it is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 round trips per year (20 one-way trips); refer to **Appendix A: GHG Emissions Data** for assumptions and calculations.

- **Solid Waste**. Solid waste releases GHG emissions in the form of methane when these materials decompose. As a solar generation and energy storage facility project, the Project would generate limited amounts of solid waste during operations. Therefore, solid waste would not be generated from operations staff beyond existing conditions.
- **Water**. GHG emissions from water demand would occur from electricity consumption associated with water conveyance and treatment. As discussed in the Project Description, operational activities are expected to consume 0.2 AF of water per year. The water is anticipated to be supplied from an off-site source.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project Site should be decommissioned and deconstructed, or it may seek an extension of its conditional use permit (CUP). The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements BMPs. The Project would include BMPs

to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off-site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including the fences and the concrete pads that may support the inverters, transformers, and related equipment. The exterior fencing and gates would be removed, and materials would be recycled to the extent feasible. Project roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. The area would be thoroughly cleaned, and all debris removed. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimized disposal in landfills. Decommissioning is expected to take one year or less, using similar equipment and an equal or lower number of workers on a daily basis. As a worst-scenario analysis, it was assumed that GHG emissions related to decommissioning would be equal to the GHG emissions related to construction. This is a more conservative (higher) estimate due to GHG emissions from electricity and vehicles are likely to be much lower 30 years in the future due to the continued implementation of existing regulations, plans, and policies.

Total Project-Related Sources of Greenhouse Gas Emissions

As shown in **Table 3**, the Project would generate approximately 108.8 tons of CO_2e (98.7 $MTCO_2e$) per year and approximately 16,557 pounds per day of CO_2e from construction, operations, and decommissioning. Therefore, the proposed Project's total GHG emissions would be below the AVAQMD thresholds of 100,000 tons CO_2e per year and 548,000 pounds CO_2e per day. Thus, Project-related emissions would have a less than significant impact related to generation of GHG emissions.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

Impact GHG-2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Consistency with the Antelope Valley Area Plan

The AVAP includes goals and policies that all new projects are required to comply with, as applicable. Project consistency with the AVAP goals and policies is discussed in **Table 4: Project Consistency with the Antelope Valley Area Plan**. As depicted in **Table 4**, the Project would be consistent with the AVAP, and impacts would be less than significant.

Table 4: Project Consistency with the Antelope Valley Area Plan	
Antelope Valley Area Plan Policy	**Project Consistency**
Policy LU 5.1: Ensure that development is consistent with the sustainable Communities Strategy adopted in 2012, an element of the Regional Transportation Plan developed by the Southern California Association of Governments.	**Consistent.** The Project is a solar generation facility and energy storage facility, which would meet regional and federal ambient air quality standards and offset GHG emissions that would otherwise have resulted from producing an equivalent amount of electricity from fossil fuel-fired electric generators. Therefore, the Project would be consistent with this policy.
Policy COS 9: Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.	**Consistent.** The Project would include BMPs to ensure the collection and recycling of modules upon decommissioning to avoid the potential for modules to be disposed of as municipal waste. Therefore, the Project would be consistent with this policy.
Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed**.**	**Consistent.** The proposed Project is a solar PV and energy storage facility that would utilize non-hazardous materials. Therefore, the Project would be consistent with this policy.
Policy COS 10.5: Encourage the development of emerging energy technologies, such as "solar roads".	**Not inconsistent.** The Project would encourage the development of solar generation and energy storage facilities in Los Angeles County. The proposed Project would promote access to clean energy and displace fossil fuel energy production. Therefore, the Project would not be inconsistent with this policy.
Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.	**Consistent.** At the end of the operation of the proposed Project, the Applicant may determine that the Project Site should be decommissioned and deconstructed. The area would be thoroughly cleaned, and all debris removed. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimized disposal in landfills. Therefore, the Project would be consistent with this policy.
Source: Antelope Valley Area Plan, June 2015.	

Consistency with the County's 2015 Community Climate Action Plan (CCAP)

The 2015 County Community Climate Action Plan (CCAP) describes the County's plan for reducing GHG emissions. Project consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP) goals and policies is discussed in **Table 5: Project Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP)**. As depicted in **Table 5**, the Project would be consistent with the CCAP, and impacts would be less than significant.

Table 5: Project Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	
Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	**Project Consistency**
BE-3 Solar Installation: Promote and incentivize solar installation for new and existing homes, commercial buildings, carports, and parking areas, water heaters, and warehouses.	**Consistent.** The Project would provide a solar generation and energy storage facility. The proposed Project would promote access to clean energy and help the region meet its RPS goals. Therefore, the Project would be consistent with this policy.
LUT-9 Idling Reduction Goal: Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications.	**Consistent.** The Project may include occasional light- and heavy-duty truck uses for operations and maintenance activities. Truck use associated with the Project would be required to comply with all CARB regulations, including the LCFS and newer engine standards. The Project would produce little waste during Project construction and operations. Therefore, the proposed Project would be consistent with this policy.
LU 12 Electrify Construction and Landscaping Equipment Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.	**Consistent.** The proposed Project would utilize electric equipment wherever feasible during Project construction, operations, and maintenance. Therefore, the proposed Project would be consistent with this policy.
Source: Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	

Consistency with the 2017 and 2022 CARB Scoping Plan

The 2017 and 2022 Scoping Plan identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. **Table 6: Consistency with the 2017 and 2022 Scoping Plan** provides an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Project would be consistent with or exceed reduction actions/strategies outlined in the 2017 and 2022 Scoping Plan. As shown, the Project would be consistent with the 2017 and 2022 CARB Scoping Plan, and impacts would be less than significant in this regard.

Table 6: Consistency with the 2017 and 2022 Scoping Plan	
2017 Scoping Plan	
Actions and Strategies	**Project Consistency Analysis**
SB 350	
Achieve a 50 percent Renewables Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030.	**Consistent.** The Project includes the construction and operation of a renewable energy generation and storage facility. Therefore, the Project would help the State achieve the RPS goals. As such, the Project would be consistent with SB 350 (and SB 100).
Low Carbon Fuel Standard (LCFS)	
Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.	**Consistent.** This standard applies to all vehicle fuels sold in California including those that could be used in vehicles associated with the Project. The Project would be consistent with this goal.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	**Consistent** As a solar renewable energy project, the Project would not emit a large amount of CH_4 (methane) emissions. Furthermore, the Project would comply with all applicable CARB and AVAQMD hydrofluorocarbon regulations. As such, the Project would be consistent with the SLCP reduction strategy.
Post-2020 Cap and Trade Programs	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals.	**Not Applicable.** As shown in **Table 3**, the Project is estimated to generate approximately 98.7 $MTCO_2e$ per year, which is below the 25,000 $MTCO_2e$ per year Cap-and-Trade screening level. Therefore, this goal is not applicable to the Project.
2022 Scoping Plan	
AB 1279	
AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage (CCUS) technologies.	**Consistent.** As a solar renewable project, the proposed Project would promote renewable energy production and would generate less than significant GHG emissions from Project construction and operations. Community and utility-scale solar project with BESS will help the region and State meet its RPS goals and ultimately carbon neutrality. The Project would be consistent with this goal.
SB 1020	
SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target of 2045 to 2035.	**Consistent.** As a solar renewable energy project, the Project would promote renewable energy production. The Project brings zero carbon energy to the regional supply grid. The Project would be consistent with this goal.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the Project is consistent with applicable plans, policies, regulations and GHG reduction actions/strategies, such as those outlined

in the AVAP, Unincorporated Los Angeles County CCAP, and 2017 and 2022 Scoping Plan Update, including the State laws listed in **Table 6** above. Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Thus, the Project would not make a cumulatively considerable contribution to significant cumulative climate change impacts.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

CUMULATIVE IMPACTS

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As the Project provides a net positive effect on GHG emissions by providing clean renewable energy and would comply with all applicable plans, rules, regulations, and policies, its contribution to cumulative GHG emissions and climate change impacts would be less than cumulatively considerable.

REFERENCES

California Air Resources Board, 2017 Scoping Plan, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed December 19, 2023.

California Air Resources Board, 2022 Scoping Plan, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed December 19, 2023.

County of Los Angeles, Antelope Valley Area Plan Town and County June 2015, https://case.planning.lacounty.gov/assets/upl/project/tnc_draft-20150601.pdf, accessed December 19, 2023.

County of Los Angeles Department of Regional Planning, General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 19, 2023.

County of Los Angeles Department of Regional Planning, Unincorporated Los Angeles County Community Climate Action Plan 2020, https://case.planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf, accessed December 19, 2023.

Edison International, Electric Company EGS/Sustainability Quantitative Information, 2020.

Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, 2007, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf, accessed December 19, 2023.

Intergovernmental Panel on Climate Change, Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013. https://www.ipcc.ch/report/ar5/wg1/, accessed December 19, 2023.

National Research Council, Advancing the Science of Climate Change, 2010.

Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy - Connect SoCal, September 3, 2020.

USEPA, Methane and Nitrous Oxide Emission from Natural Sources, April 2010.

USEPA, Overview of Greenhouse Gases, https://www.epa.gov/ghgemissions/overview-greenhouse-gases, accessed December 19, 2023.

Appendix A

GHG Emissions Data

230th Street Solar Project (GHG Version) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

3.3. Site Preparation (2025) - Unmitigated

3.5. Grading (2025) - Unmitigated

3.7. Construction/Installation (2025) - Unmitigated

3.9. PV Vendor Trip (2025) - Unmitigated

3.11. Paving (2025) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	230th Street Solar Project (GHG Version)
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	6.30
Precipitation (days)	22.6
Location	230th St W & W Avenue C 8, California 93536, USA
County	Los Angeles-Mojave Desert
City	Unincorporated
Air District	Antelope Valley AQMD
Air Basin	Mojave Desert
TAZ	6809
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

User Defined Industrial	31.0	User Defined Unit	31.0	1,350,360	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	40.7	0.50	58.7	< 0.005	0.10	< 0.005	0.11	0.08	< 0.005	0.08	0.00	249	249	0.01	< 0.005	0.02	250
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	31.0	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.15	35.8	0.25	29.0	< 0.005	0.05	< 0.005	0.05	0.04	< 0.005	0.04	0.00	124	124	0.01	< 0.005	< 0.005	125
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	6.53	0.05	5.29	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	0.00	20.6	20.6	< 0.005	< 0.005	< 0.005	20.7

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	0.02	7.45
Area	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	10.4	40.7	0.50	58.7	< 0.005	0.10	< 0.005	0.11	0.08	< 0.005	0.08	0.00	249	249	0.01	< 0.005	0.02	250
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Area	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	31.0	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.07	5.07	< 0.005	< 0.005	< 0.005	5.32
Area	5.15	35.8	0.24	29.0	< 0.005	0.05	—	0.05	0.04	—	0.04	—	119	119	< 0.005	< 0.005	—	120
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	5.15	35.8	0.25	29.0	< 0.005	0.05	< 0.005	0.05	0.04	< 0.005	0.04	0.00	124	124	0.01	< 0.005	< 0.005	125

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88
Area	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.94	6.53	0.05	5.29	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	0.00	20.6	20.6	< 0.005	< 0.005	< 0.005	20.7

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.25	0.25	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.97	0.87	< 0.005	0.04	—	0.04	0.04	—	0.04	—	150	150	0.01	< 0.005	—	151

Demolitio	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.9	24.9	< 0.005	< 0.005	—	24.9
Demolitio n	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.04	2.52	0.43	0.02	0.04	0.74	0.77	0.04	0.21	0.24	—	2,656	2,656	< 0.005	0.42	0.15	2,781
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.9	59.9	< 0.005	< 0.005	0.12	60.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.11	122
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.02	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.3	19.3	< 0.005	< 0.005	0.02	20.2

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27	1.07	10.2	9.42	0.02	0.44	—	0.44	0.41	—	0.41	—	1,668	1,668	0.07	0.01	—	1,674
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.59	0.54	< 0.005	0.03	—	0.03	0.02	—	0.02	—	96.0	96.0	< 0.005	< 0.005	—	96.3
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.9	15.9	< 0.005	< 0.005	—	15.9

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72	1.44	14.8	13.9	0.04	0.63	—	0.63	0.58	—	0.58	—	4,262	4,262	0.17	0.03	—	4,276
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.85	0.80	< 0.005	0.04	—	0.04	0.03	—	0.03	—	245	245	0.01	< 0.005	—	246
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.6	40.6	< 0.005	< 0.005	—	40.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Construction/Installation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.91	2.44	20.2	20.7	0.05	0.84	—	0.84	0.77	—	0.77	—	4,845	4,845	0.20	0.04	—	4,862
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.27	2.27	2.32	0.01	0.09	—	0.09	0.09	—	0.09	—	544	544	0.02	< 0.005	—	546
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	90.1	90.1	< 0.005	< 0.005	—	90.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.03	0.03	1.14	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,473	1,473	< 0.005	0.21	4.42	1,539
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.07	0.80	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	153	153	0.01	0.01	0.29	155
Vendor	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	166	166	< 0.005	0.02	0.21	173
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.4	25.4	< 0.005	< 0.005	0.05	25.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.4	27.4	< 0.005	< 0.005	0.04	28.6

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. PV Vendor Trip (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	0.87	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	137
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.97	8.97	< 0.005	< 0.005	—	9.00
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.48	1.48	< 0.005	< 0.005	—	1.49

Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.01	0.44	0.10	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	601	601	< 0.005	0.08	1.81	628
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.5	39.5	< 0.005	0.01	0.05	41.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.54	6.54	< 0.005	< 0.005	0.01	6.83
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.63	7.63	< 0.005	< 0.005	—	7.66
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.26	1.26	< 0.005	< 0.005	—	1.27
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.2	41.2	< 0.005	< 0.005	0.08	41.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.81	6.81	< 0.005	< 0.005	0.01	6.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	0.02	7.45
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	0.02	7.45
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	10.4	9.64	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Total	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.94	0.87	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Total	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2025	1/22/2025	5.00	16.0	—
Site Preparation	Site Preparation	1/23/2025	2/20/2025	5.00	21.0	—
Grading	Grading	2/21/2025	3/23/2025	5.00	21.0	—
Construction/Installation	Building Construction	4/8/2025	6/3/2025	5.00	41.0	—
PV Vendor Trip	Building Construction	6/4/2025	7/7/2025	5.00	24.0	—
Paving	Paving	3/24/2025	4/7/2025	5.00	11.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Off-Highway Trucks	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Skid Steer Loaders	Diesel	Average	1.00	8.00	423	0.48
Grading	Rollers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Cranes	Diesel	Average	1.00	8.00	82.0	0.20
Construction/Installation	Other Construction Equipment	Diesel	Average	1.00	8.00	14.0	0.74
Construction/Installation	Bore/Drill Rigs	Diesel	Average	1.00	7.00	367	0.29
Construction/Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	46.0	0.45
Construction/Installation	Excavators	Diesel	Average	1.00	7.00	84.0	0.37
Construction/Installation	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Construction/Installation	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Construction/Installation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Construction/Installation	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
PV Vendor Trip	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	37.0	0.48
Paving	Rollers	Diesel	Average	1.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	41.0	47.0	LDA,LDT1,LDT2
Demolition	Vendor	—	0.00	HHDT,MHDT
Demolition	Hauling	22.0	37.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	41.0	47.0	LDA,LDT1,LDT2
Site Preparation	Vendor	11.0	47.0	HHDT,MHDT
Site Preparation	Hauling	0.00	0.00	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	41.0	47.0	LDA,LDT1,LDT2
Grading	Vendor	11.0	47.0	HHDT,MHDT
Grading	Hauling	0.00	0.00	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	41.0	47.0	LDA,LDT1,LDT2
Paving	Vendor	0.00	0.00	HHDT,MHDT
Paving	Hauling	0.00	0.00	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Construction/Installation	—	—	—	—
Construction/Installation	Worker	41.0	47.0	LDA,LDT1,LDT2
Construction/Installation	Vendor	11.0	47.0	HHDT,MHDT

Construction/Installation	Hauling	0.00	0.00	HHDT
Construction/Installation	Onsite truck	0.00	0.00	HHDT
PV Vendor Trip	—	—	—	—
PV Vendor Trip	Worker	0.00	0.00	LDA,LDT1,LDT2
PV Vendor Trip	Vendor	2.00	106	HHDT,MHDT
PV Vendor Trip	Hauling	0.00	0.00	HHDT
PV Vendor Trip	Onsite truck	0.00	0.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
PV Vendor Trip	0.00	0.00	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,613	—
Site Preparation	—	—	10.5	0.00	—

Grading	—	—	10.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	0.05	0.00	0.00	12.1	2.19	0.00	0.00	570

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	2,025,540	675,180	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Industrial	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.9	annual days of extreme heat
Extreme Precipitation	3.50	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	11.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	75.4
AQ-PM	2.66
AQ-DPM	5.23
Drinking Water	79.0
Lead Risk Housing	26.3
Pesticides	46.2
Toxic Releases	38.6
Traffic	27.1
Effect Indicators	—
CleanUp Sites	58.2

Groundwater	35.0
Haz Waste Facilities/Generators	74.7
Impaired Water Bodies	33.2
Solid Waste	76.4
Sensitive Population	—
Asthma	50.3
Cardio-vascular	48.9
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.5
Housing	37.5
Linguistic	7.38
Poverty	61.8
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	54.70293853
Employed	9.136404466
Median HI	39.4199923
Education	—
Bachelor's or higher	33.8380598
High school enrollment	100
Preschool enrollment	1.873476197
Transportation	—

Auto Access	98.98626973
Active commuting	19.70999615
Social	—
2-parent households	49.7754395
Voting	0.769921725
Neighborhood	—
Alcohol availability	91.7875016
Park access	21.18567946
Retail density	2.771718209
Supermarket access	5.479276274
Tree canopy	58.5268831
Housing	—
Homeownership	81.40639035
Housing habitability	70.38367766
Low-inc homeowner severe housing cost burden	21.59630438
Low-inc renter severe housing cost burden	89.60605672
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	46.81124086
Arthritis	0.0
Asthma ER Admissions	66.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	3.0
Cognitively Disabled	48.3
Physically Disabled	7.0
Heart Attack ER Admissions	51.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	98.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	26.5
SLR Inundation Area	0.0
Children	98.6
Elderly	16.2
English Speaking	73.9
Foreign-born	8.5
Outdoor Workers	11.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	99.8
Traffic Density	33.4
Traffic Access	23.0
Other Indices	—

Hardship	36.8
Other Decision Support	—
2016 Voting	71.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	38.0
Healthy Places Index Score for Project Location (b)	26.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on Project description
Construction: Construction Phases	Changes according to client construction schedule revised December 5, 2023.
Construction: Off-Road Equipment	changes according to client construction schedule
Construction: Trips and VMT	According to Project assumptions

Construction: Architectural Coatings	No architectural coating
Operations: Vehicle Data	Adjusted based on Project Assumptions Non Res W-O 47 miles 66.67 % Non Res O-O 47 miles 33.33%
Operations: Fleet Mix	Fleet Mix according to Project Description and Project Assumptions

Version 2, December 5, 2023

230th Street

Phase	Start Date	End Date	Work Days
Demolition	1/1/2025	1/22/2025	15
Site Preparation	1/23/2025	2/20/2025	20
Grading	2/21/2025	3/23/2025	22
Paving	3/24/2025	4/7/2025	10
Construction/Installation	4/8/2025	6/3/2025	40
PV Panel vendor Trips	6/4/2025	7/7/2025	23

Equipment List

Demolition	
Dozer	2
Excavator	3
Concrete/industrial straws	1
Site Preparation	
Tractor/loader/backhoe	1
Dozers	1
Grading	
Excavators	1
Rubber Tired Dozers	1
Off-Highway Trucks	1
Skid Steer Loaders	1
Rollers	1
Construction/Installation	
Cranes	1
Pile driver rig	1
Drill rig	1
Tractors/Loaders/Backhoes	1
Excavators	1
Off-Highway Trucks	1
concrete truck	1
Rubber Tired Dozers	1
Trenchers	1
Skid steer	1
PV Vendor Trips	
Tractor/Loader/Backhoe	1
Paving	
Rollers	1

Worker Trips

	Distance from Project Site	Population[1]	%	Peak Workers
Lancaster	28	173,376	104%	36
Palmdale	37	165,917	49%	34
Totals	*65*	*339,293*		*70*
		Trip Length (miles):	**47**	
		Estimated Worker Trips[2]:	**41**	

Notes:
1. California Department of Finance Demographic Research Unit, Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2021-2023, 1/1/2023
2. Based on the Los Angeles County Average Vehicle Occupancy rate for home-work trips within the *Year 2000 Post-Census Regional Travel Survey* , Table 12, prepared by Southern California Association of Governments, dated 2003.

PV Panel Vendor Trips

	Distance from Project Site	Trips/Day[1]	System Installation (# Days)	Total Trips
Port of Long Beach	106	2	47	95

Notes:
1. A similar project in Los Angeles County assumed 5 trips per day (113 days) from the Port of Long Beach for system installation (130 MW). Since the project is 7.5 MW, scaled down the trips/day to 5% of the other project.

Notes:
CalEEMod Worker Trips: Roundtrip
CalEEMod Vendor Trips: Roundtrip

Water Truck Trips (Off-Site Wells)

	Distance Traveled	Trips/Day[1]	System Installation (# Days)	Total Trips[2]
Site Prep	47	11	22	242
Grading	47	11	44	484
Construction/Installation	47	11	41	451
			Total	1,177

Notes:

1. For another solar project, during a 6-month construction, the project will use 13 acre-feet or 4,236,000 gallons
2.Using similar methodology, each water truck would hold an average of 4,697 gallons (4,236,000 gallons/4,697 gallons per truck = 902 trucks total. 902 total trucks / 87 total days site prep grading and construction = 11 trucks per day). Water trucks hold anywhere from 2,000 to as much as 20,000 gallons.
3.Trips assumed as Vendor trips. Distance is 47 miles based on off-site well extraction.

THAT DISTANCE IS HAULING	**37 miles to the Antelope Valley**
DISTANCE FOR	**Landfill**
DEMOLITION	

Operational Trips: The Project is exepcted to generate a total of approximatley 20 operational trips per year.

AQ Trip Rate: 0.0967742

GHG Trip Rate: 0.0015

*2 panel washing, 1 water truck

	Non Res W-O (panel washing)	Non Res O-O (water truck)
Length (miles)	47	47
Purpose and Percentages	66.67	33.33
Fleet Mix	HHD%	100

Appendix H

Phase I Environmental Site Assessment

HEI
Corporation

1805 Peninsula Pl.
Costa Mesa, CA 92627

c 714.875.1362

chayden@heicorporation.com

July 27, 2022

230th Street Solar
Ms. Stephanie Loucas
Vice President of Development
Wildcat Renewables, LLC
879 Sanchez Street
San Francisco, CA 94114



Re: Phase 1 Environmental Site Assessment
Undeveloped Pasture Land
49560 230th Street
North Antelope Valley, California

Dear Ms. Loucas:



Following is the Environmental Site Assessment report on the undeveloped pasture land at 49560 230th Street in an unincorporated area in the North Antelope Valley in Los Angeles County, California. Information obtained in the process of completing this assessment did not reveal the presence of "recognized environmental conditions" in connection with the property.

HEI Corporation appreciates this opportunity to be of service to you and to Wildcat Renewables, LLC. If you have any questions regarding this report, don't hesitate to contact me at chayden@heicorporation.com or at 714-875-1362.

Sincerely,



Christopher M. Hayden
President

PHASE 1
ENVIRONMENTAL SITE ASSESSMENT

Undeveloped Pasture Land
49560 230th Street
North Antelope Valley, California

July 2022

Prepared for

230th Street Solar
Ms. Stephanie Loucas
Wildcat Renewables, LLC

Prepared by

HEI Corporation
1805 Peninsula Place
Costa Mesa, CA 92627
714-875-1362

Project 22-5774

CONTENTS

PROFESSIONAL CERTIFICATION iii

1 SUMMARY 1

2 INTRODUCTION 2

2.1	Purpose	2
2.2	Scope of Work	2
2.3	Limitations and Exceptions of Assessments	3
2.4	Limiting Conditions	3
2.5	Previous Environmental Assessments/Investigations	3
2.6	Data Gaps	4

3 SUBJECT PROPERTY DESCRIPTION 5

3.1	Site and Improvements Description	5
3.2	Subject Property - Use History	6
3.3	Adjoining Properties - Use History	6
3.4	Aerial Photograph and USGS Analysis	7

4 RECORDS SEARCH 10

4.1	Regulatory Agencies Database Search	10
4.2	Regional Sources	12
4.3	County Sources	12

5 SUBJECT PROPERTY INSPECTION 13

5.1	Use and Storage of Hazardous Materials	13
5.2	Indications of PCBs	13
5.3	Indications of Solid Waste Disposal	13
5.4	Indications of Hazardous Waste Disposal	13
5.5	Indications of Asbestos Containing Materials	13
5.6	Indications of Vapor Intrusion/Vapor Encroachment	14

6 INTERVIEW 15

7 FINDINGS, OPINIONS AND CONCLUSIONS 16

Contents (Continued)

APPENDIX A	**LIMITATIONS**
APPENDIX B	**1975 AND 2015 USGS MAPS / ASSESSOR'S PARCEL MAP / RENEWABLE PROPERTIES PRELIMINARY ARRAY LOCATION**
APPENDIX C	**SUBJECT PROPERTY PHOTOGRAPHS** **1952, 1972, 1984, 1994, 2005, 2012 AND 2018 AERIAL PHOTOGRAPHS**
APPENDIX D	**REGULATORY AGENCIES DATABASE REPORT**
APPENDIX E	**STATEMENT OF QUALIFICATIONS FOR HEI CORPORATION**

PROFESSIONAL CERTIFICATION

This Phase 1 Environmental Site Assessment (ESA) was conducted within the limitations included as Appendix A. The site visits and records reviews were performed by Chris Hayden (EP), consistent with the proposal submitted to Wildcat Renewables, LLC. The information contained in this ESA was obtained from personal inspection, from various government agencies, and from sources deemed to be reliable.

PHASE 1
ENVIRONMENTAL SITE ASSESSMENT

Undeveloped Pasture Land
49560 230th Street
North Antelope Valley, California

Project 22-5774

I declare that, to the best of my professional knowledge and belief, I meet the definition of **Environmental Professional** (EP) as defined in Section 40 C.F.R. § 312.10(b).

I have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in Section 40 C.F.R. § 312.10(b).

Christopher M. Hayden
Environmental Professional

1 SUMMARY

This ESA was performed on undeveloped pasture land at 49560 230th Street in the unincorporated area of North Antelope Valley to the northwest of the City of Lancaster in Los Angeles County, California (hereinafter referred to as the "Subject Property").

After inspecting the Subject Property; reviewing its past uses; observing surrounding properties; searching through the Federal Environmental Protection Agency, State of California, and Los Angeles County records, and interviewing individuals for information regarding the current and past uses of the Subject Property, it can be concluded that there is no evidence of "recognized environmental conditions", as defined by the ASTM Standard Practice, in connection with the Subject Property. No further action is required at this time.

2 INTRODUCTION

2.1 Purpose

The purpose of this Environmental Site Assessment is to identify "recognized environmental conditions" in connection with the Subject Property. The ASTM Standard Practice for Environmental Site Assessments E 1527-21 defines "recognized environmental condition" as "(1) the presence of hazardous substances or petroleum products in, on or at the Subject Property due to a release to the environmental; (2) the likely presence of hazardous substances or petroleum products in, on or at the Subject Property due to a release or likely release to the environmental; or (3) the presence of hazardous substances or petroleum products in, on or at the Subject Property under conditions that pose a material threat of a future release to the environmental."

2.2 Scope of Work

As agreed between HEI Corporation and Wildcat Renewables, LLC, the scope of work for an ESA shall include the following:

- Site Inspection
- Surrounding Property Observation
- Interviews With Individuals Having Knowledge of the Operations on the Subject Property
- Inspection of City or County Building Permits
- Inspection of County Health Care Agency Files
- State and Federal Regulatory Agency Database Search For Posted Properties Within An ASTM Designated Radius of the Subject Property
- Inspection of City or County Fire Department Records
- Search for Records of Permits for Underground or Aboveground Storage Tanks
- Inspection of Owner/Operator's Books and Records

- Evaluate the Likelihood of Vapor Encroachment Onto the Subject Property or Vapor Intrusion Into Structures on the Subject Property

- Inspection of Historical Aerial Photographs, Sanborn Map Company Maps and/or Archive Cross Directories

- Preparation and Presentation of One pdf Report

2.3 Limitations and Exceptions of Assessments

This ESA is based upon the information available from a variety of sources and on the inspection of the Subject Property. The ESA was performed in accordance with industry standards and using appropriate methods. It is intended to allow a party to make an informed decision regarding the Subject Property.

HEI Corporation is not responsible or liable for the accuracy of the information provided by others. This ESA is not a guaranty that there is no subsurface contamination, nor can it be warranted that those areas of environmental concern herein noted are the only areas of potential contamination at the Subject Property.

There was no sampling or testing for the possible presence or absence of, nor is any definitive statement made in this ESA regarding the possible presence or absence of any of the following:

1) Asbestos Containing Materials

2) Radon

3) Lead Based Paints

4) Lead in the Drinking Water

2.4 Limiting Conditions

There were no limiting conditions with regard to the ability of HEI Corporation to conduct the property inspection portion of this ESA. Access was made available to all parts of the Subject Property.

2.5 Previous Environmental Site Assessments/Investigations

Neither the Client nor HEI Corporation are aware of any previously conducted Phase 1 Environmental Site Assessments or Environmental Investigations having been conducted on the Subject Property.

2.6 Data Gaps

Data gaps occur in three areas of this report. In the past uses section, there is a gap of more than 10 years in the historic aerial photographs available from NETR Online. In the records search section, a request for records was not submitted to the Los Angeles County Fire Department. In the interviews section, the owner of the Subject Property was not questioned. These data gaps have not affected the ability of HEI Corporation to form an opinion or arrive at a conclusion as to the environmental condition of the Subject Property.

3 SUBJECT PROPERTY DESCRIPTION

3.1 Site and Improvement Description

The Subject Property is located on a rectangularly shaped, approximately 1,750,839 square foot (40.19 acre), parcel of land. It is located on the eastern side of 230th Street, to the north of West Avenue D/State Route 138. Avenue C is to the north and 235th Street is to the west. It is located to the west of 220th Street. Interstate 5 is several miles to the west and State Highway 14 is several miles to the east. The Subject Property is located to the northwest of the City of Lancaster in Los Angeles County The assessor's parcel number is 3278-025-001.

The topography for the general area Subject Property is flat. The elevation is approximately 2,830 feet above sea level. Unnamed creeks were shown to the north and southeast. Hilly areas are to the southwest. The Governor Edmund G. Brown East Branch California Aqueduct is to the southwest. The soil beneath the Subject Property consists of alluvium, comprised of clay, silt, sand and gravel. The California State Water Resources Control Board's GeoTracker database was searched for information on groundwater in the area. No proximal datapoints were found. A Case Closure Summary was found for a leaking underground storage tank (LUST) site approximately 11.05 miles to the southeast, at 12701 West Lancaster Road. The summary, dated January 26, 2017, was prepared by the California Regional Water Quality Control Board, Lahontan Region. The summary stated that regional groundwater was estimated to be more than 200 feet below ground surface. The direction of groundwater flow was not given in this summary.

Structure There are no structures on the Subject Property.

Parking and Landscaping There is no parking area on the Subject Property. Vegetation observed on the parcel consisted of weedy shrubs. The plants were in good condition and no signs of unusually stressed vegetation were observed. No stained soil was observed.

Utilities The utility services to properties in the area of the Subject Property are provided by a variety of vendors. Electricity is provided by Southern California Edison; gas is provided by Southern California Gas (the Subject Property appears to use propane); and trash removal by private vendors. Water appeared to be sourced from an on-site well, and sewage treatment is most likely to be by septic tank.

3.2 Subject Property - Use History

The Subject Property consists of undeveloped pasture land, with stables located in the northwestern corner. The parcel on which the Subject Property is located also includes a residence, garage, stables and corrals.

3.2.1 Past Site Uses

Past uses for the Subject Property were determined by reviewing an aerial photographs dating back to 1952. No permit records were found for the Subject Property address on the Los Angeles County Department of Public Works online database, nor were archive city directories researched. No Sanborn Map Company maps were found for the area of the Subject Property on the City of Los Angeles Public Library's online database.

The 1952 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production. The aerial photographs in 1963 and 1974 showed the Subject Property to be undeveloped, with no evidence of activity observed. The 1994 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production. What may have been a mobile home was observed in the southwest corner of the parcel on which the Subject Property is located. The aerial photographs taken from 2005 to 2018 showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals.

3.3 Adjoining Properties - Use History

A number of properties adjoin the Subject Property.

North Adjoining to the north of the Subject Property, across an unpaved West Avenue C-8, is an undeveloped parcel of land.

East Adjoining to the east is an undeveloped parcel of land.

South Adjoining to the south is undeveloped pasture land.

West Adjoining to the west, across 230th Street, is an undeveloped parcel of land.

Nothing was observed on the adjoining properties that appeared to be of environmental concern to the Subject Property.

3.3.1 Adjoining Properties - Use History

Prior uses for the properties discussed above were determined be examining aerial photographs dating back to 1952 and by reviewing the Neenach School, California USGS Topographic Map. The aerial photographs and USGS map were obtained from NETR Online.

3.4 Historic Aerial Photograph and USGS Map Analysis

Historic aerial photographs are examined in order to determine what may have existed on a site prior to the construction of the existing buildings. The aerial photographs for the Subject Property dating back to the 1952 were obtained from NETR Online.

- An aerial photograph taken in **1952** showed the Subject Property and the adjoining properties to the north, east and south to be undeveloped and possibly in agricultural production. The adjoining property to the west, across an unpaved 230th Street, was undeveloped and possibly in agricultural production. Unnamed creeks were shown to the northwest and southeast. Small structures, likely residences, garages and storage buildings, were shown to the west, north and south. Agricultural activity was shown throughout the area. A copy of this aerial photograph can be seen as Figure C-1 in Appendix C.

- An aerial photograph taken in **1963** showed the Subject Property to be undeveloped, with no evidence of activity observed. The adjoining property to the north was shown to be undeveloped and possibly in agricultural production. The adjoining property to the east to be undeveloped, with no evidence of activity observed. The adjoining area to the south was undeveloped with no evidence of activity observed. The adjoining property to the west, across an unpaved 230th Street, was undeveloped and possibly in agricultural production. A newer small structure was shown to the south that appeared to be a residence. Small structures, likely residences, garages and storage buildings, were shown to the west, north and south. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown throughout the area. A copy of this aerial photograph can be seen as Figure C-2 in Appendix C.

- An aerial photograph taken in **1974** showed the Subject Property and the adjoining properties to the north, east and south to be undeveloped, with no evidence of activity observed. The adjoining property to the west, across an unpaved 230th Street, was undeveloped and possibly in agricultural production. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. Small structures, likely residences, garages and storage buildings, were shown to the west, north and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown throughout the area. A copy of this aerial photograph can be seen as Figure C-3 in Appendix C.

- An aerial photograph taken in **1994** showed the Subject Property to be undeveloped and possibly in agricultural production. What may have been a mobile home was observed in the southwest corner of the parcel on which the Subject Property is located. The adjoining property to the north was shown to be undeveloped and possibly in agricultural production. The adjoining properties to the east and south were shown to be undeveloped, with no evidence of activity observed. The adjoining area to the west of the, across an unpaved 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A newer commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Small structures,

likely residences, garages and storage buildings, were shown to the west, north and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the northwest and south. Most o the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-4 in Appendix C.

- An aerial photograph taken in **2005** showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals. The adjoining properties to the north, east and south were shown to be undeveloped, with no evidence of activity observed. The adjoining area to the west of the, across a paved 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Newer and existing small structures, likely residences, garages and storage buildings, were shown to the west, northwest, north, southwest and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the north, northwest and south. What appeared to be grading activity was shown to the northeast. Most of the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-5 in Appendix C.

- An aerial photograph taken in **2012** showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals. The adjoining properties to the north and east were shown to be undeveloped, with no evidence of activity observed. The eastern portion of the adjoining area to the south appeared to be used as pasture land, and the western portion was shown to be undeveloped. The adjoining area to the west of the, across 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Small structures, likely residences, garages and storage buildings, were shown to the west, northwest, north, southwest and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the north, northwest and south. What appeared to be a graded area was shown to the northeast. Most of the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-6 in Appendix C.

- An aerial photograph taken in **2018** showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals. The adjoining properties to the north and east were shown to be undeveloped, with no evidence of activity observed. The eastern portion of the adjoining area to the south appeared to be used as pasture land, and the western portion was shown to be undeveloped. The adjoining area to the west of the, across an unpaved 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A

commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Small structures, likely residences, garages and storage buildings, were shown to the west, northwest, north, southwest, south and southeast. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the northwest and south. A solar array was shown to the northeast. Most of the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-7 in Appendix C.

USGS Map Analysis The 7.5 Minute Series United States Geological Survey Topographic Map for the area of the Subject Property is named the Neenach School, California map. The map, which was laid out in 1965, showed no structures the Subject Property or on the adjoining properties. A small structure and a second item were shown to the south. Unnamed creeks were shown to the northwest and southeast. Structures labeled Snyder Ranch were shown to the west; and structures labeled Gorrindo Ranch were shown to the north. A water well was shown to the northeast. An orchard was shown to the south. The map was photorevised (updated based on a review of aerial photographs) in 1975. The revised map showed no newer structures on the Subject Property or on any of the adjoining properties. A newer small structure was shown to the south (newer structures are shown in a purple tint on the revised map). A newer structure was shown at the northeast corner of West Avenue D and 230th Street. The newer California Aqueduct was shown to the southwest. Smaller structures were shown to the northeast and south. A copy of a portion of the 1976 Neenach School, California map can be seen as Figure B-1 in Appendix B.

The 2015 Neenach School, California map did not show any structures. Unnamed creeks were shown to the northwest and southeast. West Avenue D/State Route 138 was shown to the south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. A portion of the 2015 Neenach School, California USGS Map is reproduced as Figure B-2 in Appendix B.

4 RECORDS SEARCH

4.1 Regulatory Agencies Database Search

The following Federal, State of California, Tribal and local government agency databases and sources were searched for postings within designated radii of the Subject Property:

FEDERAL SOURCES

- National Priority List (NPL) Within 1.0 Mile
- Proposed National Priority List (PNPL) Within 1.0 Mile
- Superfund Enterprise Management System (SEMS) Within 0.50 Miles
- Federal Facility (Fed Fac) Within 0.50 Miles
- SEMS Archived Sites (SEMS-Archive) Within 0.50 Miles
- RCRA Corrective Action (CORRACTS) Within 1.0 Mile
- RCRA Treatment Storage and Disposal Facilities (RCRA-TSDF) Within 0.50 Miles
- RCRA Hazardous Waste Generator (RCRA-LQG; RCRA-SQG; RCRA-CESQG) Within 0.25 Miles
- Federal EPA Institutional Controls/ Engineering Controls (US Inst Control/US Eng Control) Within 0.50 Miles
- Emergency Response Notification System for Spills (ERNS), Target Property Only
- US Brownfields Within 0.50 Miles

STATE OF CALIFORNIA AND LOCAL GOVERERNMENT SOURCES

- Response Within 1.0 Mile
- EnviroStor Within 1.0 Mile

- California/Tribal Landfills and/or Solid Waste (SWF/LF) Within 0.50 Miles
- California/Tribal Cleanup Program Site-Spills, Leaks, Investigations and Cleanups (CPS-SLIC) Within 0.50 Miles
- California/Tribal Leaking Underground Storage Tanks (LUST) Within 0.50 Miles
- California/Tribal Hazardous Substance Storage Containers (UST/AST) Within 0.25 Miles
- California/Tribal EPA Voluntary Cleanup Program (VCP) Within 0.50 Miles
- Local Landfill and Solid Waste Disposal Sites (Debris Region 9, ODI, WMUDS/SWAT, SWRCY) Within 0.50 Miles
- Local Hazardous Waste and Contaminated Sites (US CDL, Historic Cal-Sites, SCH, Toxic Pts, CDL, US Historic CDL) Within Various Radii
- Local Underground Storage Tanks (CA FID UST, Historic UST, SWEEPS UST) Within 0.25 Miles
- Environmental Liens (LIENS) for Subject Property Only
- Deed Restricted Sites (DEED) Within 0.50 Miles
- Emergency Release Reports (HMIRS, CHMIRS, LDS, MCS) for Subject Property Only

The environmental database report is included in Appendix D.

SUBJECT PROPERTY The Subject Property is not posted onto any of the databases.

ADJOINING PROPERTY POSTINGS None of the adjoining properties is posted onto databases.

NEARBY PROPERTY POSTINGS No sites within 0.125 miles of the Subject Property are posted onto databases.

OTHER PROPERTIES Given the fact that the Subject Property is located in an area of mostly undeveloped high desert land, it is to be expected that few, or in this case, no sites would be posted onto the databases. There is no known regional groundwater impact in the area.

4.1.2 State of California Geologic Energy Management Division (CalGEM)

The State of California Department of Conservation Division of Geologic Energy Management (CalGEM) maintains maps that show the exact location of oil wells located in the state. The DOGGR Well Finder online mapping service was searched for oil or gas wells in the area. The

map showed no oil or gas wells on, near or within one mile of the Subject Property. A plugged "Dry Hole" oil well was shown more than one mile to the north.

4.1.3 State of California Department of Toxic Substance Control (DTSC)

The State of California Department of Toxic Substance Control (DTSC) is the agency that tracks sites on which there have been placed deed restrictions and land use restrictions. The DTSC web site for deed restricted sites and for land use restriction sites was searched. Neither the Subject Property nor any of the adjoining properties were included on these lists.

4.2 Regional Source

4.2.1 Regional Water Quality Control Board

The Regional Water Quality Control Board, Lahontan Region (LRWQCB), maintains a list of sites with leaking underground storage tanks (LUST) and sites on which there have been spills, leaks, investigations and cleanups (SLIC). The LRWQCB web site's GeoTracker database was searched. The Subject Property was not found on the LUST list or the SLIC list.

4.3 County Sources

4.3.1 Los Angeles County Building & Safety Division

The Building & Safety Division of the Los Angeles County Department of Public Works records are sought as part of an ESA to determine the age of ay buildings and to obtain additional information of environmental significance. The LACDPW's Building Permit Viewer online database was searched for records for the Subject Property address and assessor's parcel number. No records were found.

4.3.2 Los Angeles County Underground Storage Tank Program

The Los Angeles County Department of Public Works Underground Storage Tank Program's online database was searched for the Subject Property address. No records were found.

4.3.2 Los Angeles County Fire Department

The Los Angeles County Fire Department is the Certified Unified Program Agency (CUPA) for unincorporated areas of the county. The LACFD conducts inspections of facilities that use or store flammable and/or hazardous materials. The LACFD's Health Hazardous Materials/CUPA online databases for Site Mitigation, Active Facilities and Inactive Facilities were searched for the Subject Property address. No records were found.

5 SUBJECT PROPERTY INSPECTION

The Subject Property was inspected on July 14, 2022 by Chris Hayden, EP. The purpose of the site visit is to seek out and to report on visible environmental concerns, or to note use and storage of hazardous materials which could affect the environment condition of the Subject Property.

5.1 Use and Storage of Hazardous Materials at the Subject Property

The Subject Property consists of undeveloped pasture land. On the day of the inspection, no use or storage of hazardous materials were observed, as can be seen in Photographs 1 - 10 in Appendix C. Stables were observed in the northwest corner of the Subject Property, as can be seen in Photographs 2 and 3.

5.2 Indications of PCBs

There is no indication that polychlorinated biphenyls (PCBs) were used or stored at the Subject Property. No transformers were observed on the Subject Property. A pole-mounted transformer was shown across 230th Street, to the southwest of the Subject Property. This and other transformers in the area would be the property of Southern California Edison.

5.3 Indications of Solid Waste Disposal

Solid wastes are not currently generated on the Subject Property. Solid wastes generated in the city are placed into containers that are provided and serviced by private vendors.

5.4 Indications of Hazardous Waste Disposal

Hazardous waste accumulation was not observed on the Subject Property on the day of the inspection. No documentation was found to indicate that hazardous wastes have been generated on the site in the past.

5.5 Indications of Asbestos Containing Materials (ACMs)

There are no structures on the Subject Property.

5.6 Indications of Vapor Intrusion/Vapor Encroachment

Impacted soil or groundwater on a site may result in vapor intrusion; and impacted groundwater migrating towards a site may result in vapor encroachment. There is no indication that the soil or groundwater on the Subject Property has been impacted. There are no LUST or SLIC sites shown to be within 0.50 miles of the Subject Property. Therefore, it is unlikely that vapor intrusion or vapor encroachment would be of concern for the Subject Property.

6 INTERVIEW

An important part of any Phase 1 is an interview with individuals having knowledge of the facilities and the operations at the property being assessed. For this ESA, there were no operations of the Subject Property. An effort was made to contact the current owner of the Subject Property, Amilcar Badano. Also, there was nobody at the residence on the day of the inspection.

7 FINDINGS AND CONCLUSIONS

Prior to arriving at these conclusions, the following tasks were completed:

- The Subject Property was inspected.
- The surrounding properties were observed.
- Historic aerial photographs were obtained and examined.
- Information was requested from various governmental and regulatory agencies for environmental information pertaining to the Subject Property.
- The databases from local, tribal, state and federal regulatory agencies were examined.

Findings included the following:

- The 1952 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production.
- The aerial photographs in 1963 and 1974 showed the Subject Property to be undeveloped, with no evidence of activity observed.
- The 1994 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production. What may have been a mobile home was observed in the southwest corner of the parcel on which the Subject Property is located.
- The aerial photographs taken from 2005 to 2018 showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals.
- The Subject Property is not posted onto any the environmental databases searched in Section 4.1.
- No use or storage of hazardous materials were observed on the Subject Property on the day of the inspection.

HEI Corporation has performed a Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-21 (and Final Rule 40 CFR Part 312 et seq.) on undeveloped pasture land at 49560 230th Street in the unincorporated area of North Antelope Valley to the northwest of the City Lancaster in Los Angeles County, California. Any exceptions to, or deletions from, this practice are discussed in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Property. No further action is required.

APPENDIX A

LIMITATIONS

LIMITATIONS

The services described in this report were performed consistent with generally accepted consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with the Client. This report is solely for the use and information of the Client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

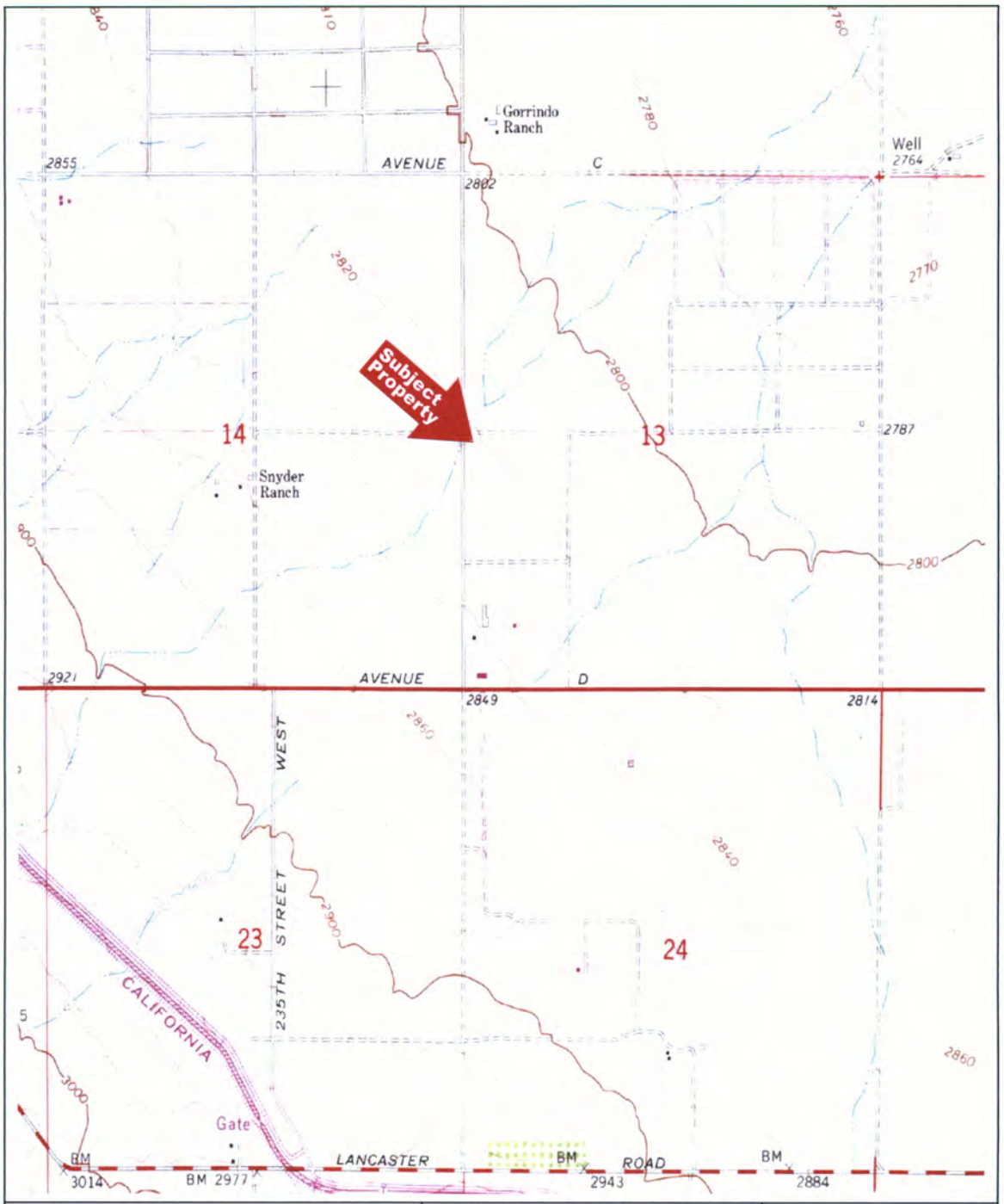
Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the Client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to the performance of services. We do not warrant the accuracy of information supplied by others.

The purpose of an environmental assessment is to reasonable evaluate the potential for or actual impact of past and current practices on the Subject Property. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an exhaustive analysis of each conceivable issue of potential concern. The following paragraph discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to exclude the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such materials on the site, but rather as the services performed within the scope, limitations, and cost of the work performed. Environmental conditions may exist on the Subject Property that cannot be identified by visual observation.

APPENDIX B

1975 AND 2015 USGS MAPS / ASSESSOR'S PARCEL MAP / RENEWABLE PROPERTIES PRELIMINARY ARRAY LOCATION



Hayden Environmental	1975 USGS 7.5 Minute Topographic Map Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: B-1

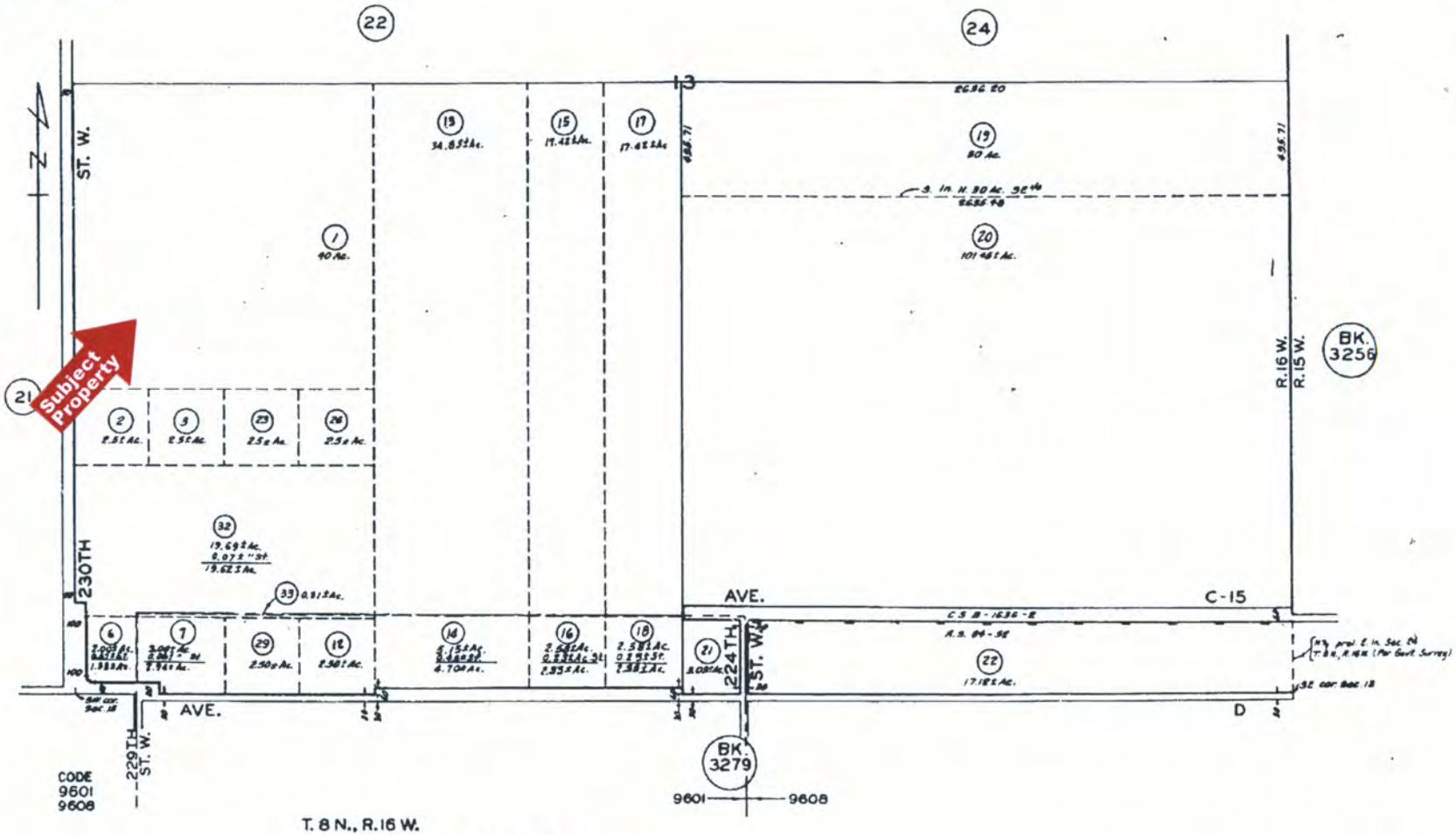


Hayden Environmental	2015 USGS 7.5 Minute Topographic Map Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: B-2

1-800-345-7334

3278 | 25

SCALE 1" = 400'



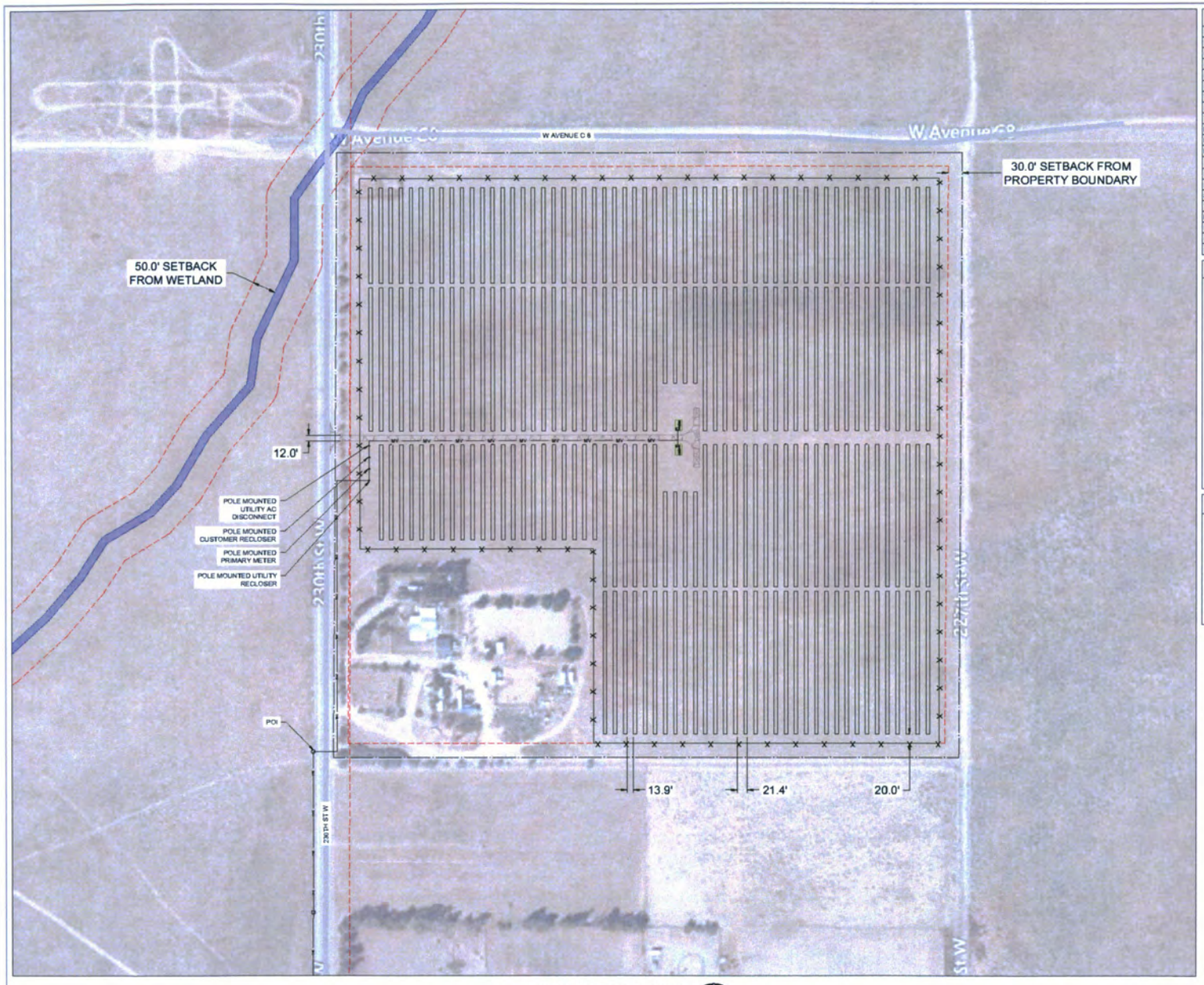
T. 8 N., R. 16 W.

PROPERTY OF MOLLIE A. SILVEY

M. R. 72-67-68

FOR PREV. ASSM'T SEE:
3255 - 3 & 12

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.



1 ARRAY LOCATION
SCALE:1"=100'

N

SYSTEM SPECIFICATIONS	
SYSTEM SIZE DC	7,494.12 kW
SYSTEM SIZE AC	5,000.00 kW
DC/AC RATIO	1.50
MODULE MANUFACTURER	ASTRONERGY
MODULE MODEL	CHSM72M(DG)/F-BH
MODULE RATING	540 W
TOTAL MODULE QTY	13,878
MODULES PER STRING	27
TOTAL NO. OF STRINGS	514
INVERTER MODEL	SUNGROW SG125HV
INVERTER RATING	125 kW
INVERTER QTY	40
STEP-UP TRANSFORMER	G)12kV/500V, 2500kVA
RACKING	ATI HSAT
# OF 81 MODULE RACKS	114
# OF 54 MODULE RACKS	86
TILT ANGLE	0°
INTER-ROW SPACING	13.9'
PITCH	21.4'
GCR	35%
SITE AREA INSIDE FENCE	29.23 Ac

LEGEND

- ATI 81 MODULE TRACKER ROW
- ATI 54 MODULE TRACKER ROW
- POWER STATION - (1) MV TRANSFORMER, (1) DAS, (1) WEATHER STATION
- SUNGROW 125kW STRING INVERTER
- 12' WIDE SITE ACCESS GRAVEL ROAD
- WETLANDS
- (E) PUBLIC ROAD
- PROPERTY LINE
- PROJECT SITE SECURITY FENCE
- SETBACK
- (E) OH LINES
- MV CABLE

GENERAL NOTES

1. REFER TO SINGLE LINE DIAGRAM FOR DETAILS.
2. INSTALLATION TO COMPLY WITH NEC 2020 ARTICLE 690 AND ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES OR REGULATIONS
3. EQUIPMENT SHALL BE LABELED PER NEC 690 AND UTILITY REGULATIONS
4. 12' ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, OPERATIONS, MAINTENANCE, AND UTILITY TRAFFIC THROUGHOUT THE SITE.
5. DIMENSIONS TO PROPERTY LINES AND EXISTING FEATURES ARE APPROXIMATE PENDING SURVEY.

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS

0	PRELIM LAYOUT	05/06/22

RENEWABLE PROPERTIES
870 SANCHEZ STREET,
SAN FRANCISCO, CA 94114
PHONE (530) 518-7669
WWW.RENEWPROP.COM

SEDA
SEQUOIA ENGINEERING & DESIGN ASSOCIATES
575 LENNON LANE, SUITE 145
WALNUT CREEK, CA 94598
PHONE (925) 891-4183
FAX (925) 954-1220
WWW.SEQUOIA-ENGINEERING.COM

PROJECT

230TH STREET SOLAR
230TH ST W,
LANCASTER,
CA 93536
LAT: 34.780632°
LON: -118.533032°

SHEET TITLE

SITE PLAN

SCALE: AS SHOWN
DRAWN BY:
DATE: 05/06/22

PV-100

SHEET 1 OF 2

THIS DRAWING AND ITS CONTENTS ARE THE PROPERTY OF SEQUOIA ENGINEERING AND DESIGN ASSOCIATES AND MAY NOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

APPENDIX C

SUBJECT PROPERTY PHOTOGRAPHS
1952, 1963, 1974, 1994, 2005, 2012 AND 2018 AERIAL PHOTOGRAPHS

PHOTOGRAPHS



1. View of the Southwestern Portion of the Subject Property Looking Northeast Showing the Point of Interconnection to the Electrical Grid



2. View of the Northwestern Portion of the Subject Property Looking Southeast Showing the Stables in the Northwest Corner of the Parcel



3. View of the Northwestern Portion of the Subject Property Looking Southwest Showing the Stables in the Northwest Corner of the Parcel



4. View of the Northeastern Portion of the Subject Property Looking Southwest



5. View of the Northeastern Portion of the Subject Property Looking Northwest Showing Solar Arrays to the North



6. View of the Southeastern Portion of the Subject Property Looking Northwest



7. View of the Southeastern Portion of the Subject Property Looking Northeast



8. View of the Southwestern Portion of the Subject Property Looking Northeast



9. View of the Southern Portion of the Subject Property Looking Southeast



10. View of the South-Central Portion of the Subject Property Looking Northwest



Hayden Environmental	1952 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-1



Hayden Environmental	1963 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-2



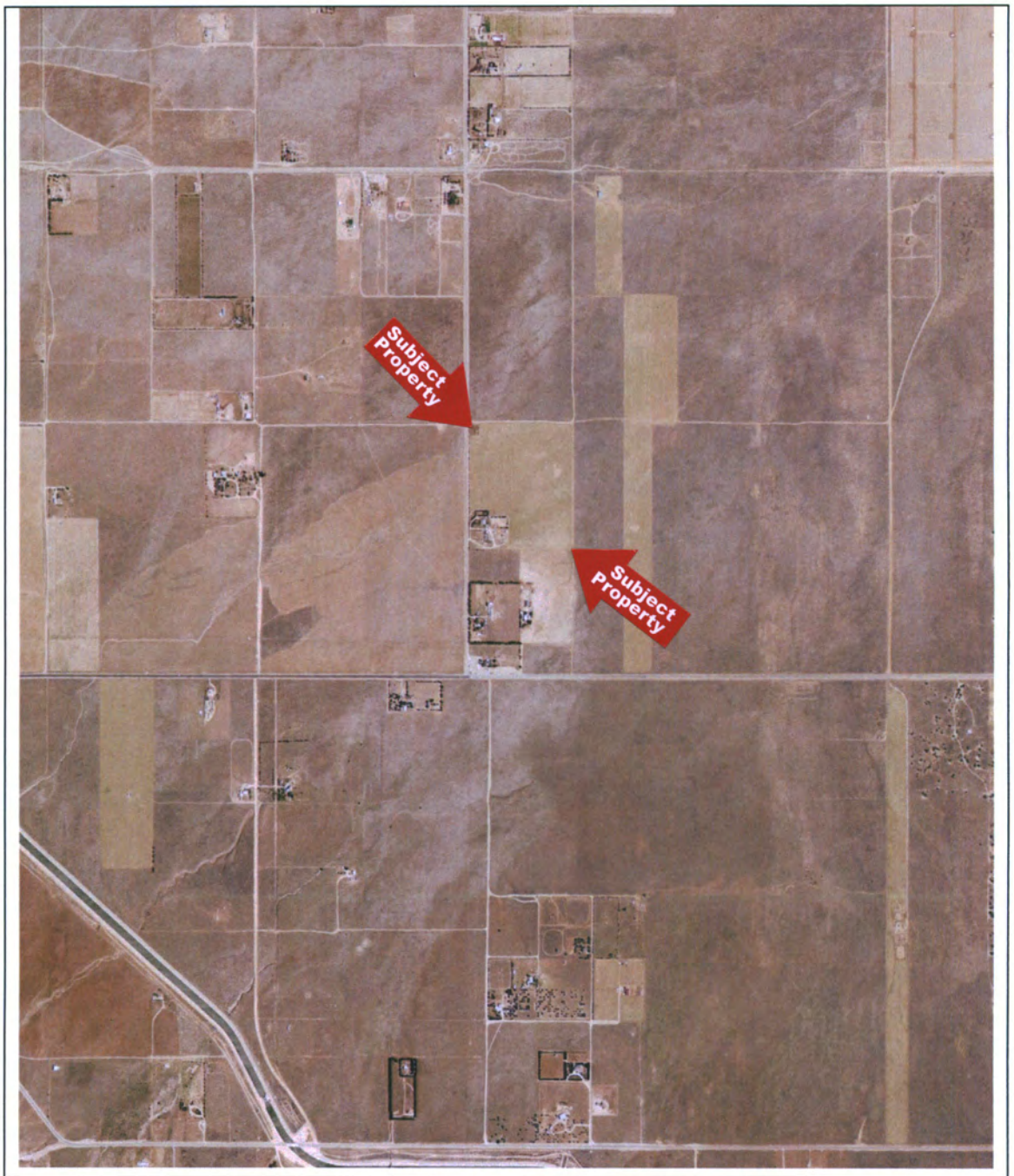
Hayden Environmental	1974 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-3



Hayden Environmental	1994 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-4



Hayden Environmental	2005 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-5



Hayden Environmental	2012 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-6



Hayden Environmental	2018 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-7

APPENDIX D

REGULATORY AGENCIES DATABASE REPORT

230th Street Solar Poject
49560 230th Street
Lancaster, CA 93536

Inquiry Number: 07056001.10r
July 18, 2022

FirstSearch Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Search Summary Report

TARGET SITE **49560 230TH STREET**
LANCASTER, CA 93536

Category	Sel	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	Y	0	0	0	0	0	0	0
NPL Delisted	Y	0	0	0	0	0	0	0
CERCLIS	Y	0	0	0	0	-	0	0
NFRAP	Y	0	0	0	0	-	0	0
RCRA COR ACT	Y	0	0	0	0	0	0	0
RCRA TSD	Y	0	0	0	0	-	0	0
RCRA GEN	Y	0	0	0	-	-	0	0
Federal IC / EC	Y	0	0	0	0	-	0	0
ERNS	Y	0	-	-	-	-	0	0
State/Tribal NPL	Y	0	0	0	0	0	0	0
State/Tribal CERCLIS	Y	0	0	0	0	0	0	0
State/Tribal SWL	Y	0	0	0	0	-	0	0
State/Tribal LTANKS	Y	0	0	0	0	-	0	0
State/Tribal Tanks	Y	0	-	-	-	-	0	0
State/Tribal VCP	Y	0	0	0	0	-	0	0
US Brownfields	Y	0	0	0	0	-	0	0
Other SWF	Y	0	0	0	0	-	0	0
Other Haz Sites	Y	0	0	0	-	-	0	0
Other Tanks	Y	0	0	0	-	-	0	0
Local Land Records	Y	0	0	0	0	-	0	0
Spills	Y	0	-	-	-	-	0	0
Other	Y	0	0	-	-	-	0	0
	- Totals --	0	0	0	0	0	0	0

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Search Summary Report

TARGET SITE: **49560 230TH STREET**
LANCASTER, CA 93536

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	NPL	04/27/2022	1.000	0	0	0	0	0	0	0
	Proposed NPL	04/27/2022	1.000	0	0	0	0	0	0	0
NPL Delisted	Delisted NPL	04/27/2022	1.000	0	0	0	0	0	0	0
CERCLIS	SEMS	04/27/2022	0.500	0	0	0	0	-	0	0
NFRAP	SEMS-ARCHIVE	04/27/2022	0.500	0	0	0	0	-	0	0
RCRA COR ACT	CORRACTS	06/20/2022	1.000	0	0	0	0	0	0	0
RCRA TSD	RCRA-TSDF	06/20/2022	0.500	0	0	0	0	-	0	0
RCRA GEN	RCRA-LQG	06/20/2022	0.250	0	0	0	-	-	0	0
	RCRA-SQG	06/20/2022	0.250	0	0	0	-	-	0	0
	RCRA-VSQG	06/20/2022	0.250	0	0	0	-	-	0	0
Federal IC / EC	US ENG CONTROLS	02/21/2022	0.500	0	0	0	0	-	0	0
	US INST CONTROLS	02/21/2022	0.500	0	0	0	0	-	0	0
ERNS	ERNS	06/14/2022	TP	0	-	-	-	-	0	0
State/Tribal NPL	RESPONSE	04/25/2022	1.000	0	0	0	0	0	0	0
State/Tribal CERCLIS	ENVIROSTOR	04/25/2022	1.000	0	0	0	0	0	0	0
State/Tribal SWL	SWF/LF	02/07/2022	0.500	0	0	0	0	-	0	0
State/Tribal LTANKS	LUST	05/23/2022	0.500	0	0	0	0	-	0	0
	INDIAN LUST	04/28/2021	0.500	0	0	0	0	-	0	0
	CPS-SLIC	05/23/2022	0.500	0	0	0	0	-	0	0
State/Tribal Tanks	UST	03/07/2022	TP	0	-	-	-	-	0	0
	AST	07/06/2016	TP	0	-	-	-	-	0	0
	INDIAN UST	10/14/2021	0.250	0	0	0	-	-	0	0
State/Tribal VCP	VCP	04/25/2022	0.500	0	0	0	0	-	0	0
US Brownfields	US BROWNFIELDS	02/23/2022	0.500	0	0	0	0	-	0	0

Search Summary Report

TARGET SITE: **49560 230TH STREET**
LANCASTER, CA 93536

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
Other SWF	WMUDS/SWAT	04/01/2000	0.500	0	0	0	0	-	0	0
Other Haz Sites	SCH	04/25/2022	0.250	0	0	0	-	-	0	0
	US CDL	02/22/2022	TP	0	-	-	-	-	0	0
Other Tanks	SWEEPS UST	06/01/1994	0.250	0	0	0	-	-	0	0
Local Land Records	DEED	02/28/2022	0.500	0	0	0	0	-	0	0
Spills	HMIRS	03/21/2022	TP	0	-	-	-	-	0	0
	CHMIRS	04/03/2022	TP	0	-	-	-	-	0	0
Other	RCRA NonGen / NLR	06/20/2022	0.125	0	0	-	-	-	0	0
	TSCA	12/31/2016	TP	0	-	-	-	-	0	0
	TRIS	12/31/2018	TP	0	-	-	-	-	0	0
	SSTS	01/19/2022	TP	0	-	-	-	-	0	0
	RAATS	04/17/1995	TP	0	-	-	-	-	0	0
	PRP	01/25/2022	TP	0	-	-	-	-	0	0
	PADS	01/20/2022	TP	0	-	-	-	-	0	0
	ICIS	11/18/2016	TP	0	-	-	-	-	0	0
	FTTS	04/09/2009	TP	0	-	-	-	-	0	0
	MLTS	03/11/2022	TP	0	-	-	-	-	0	0
	RADINFO	07/01/2019	TP	0	-	-	-	-	0	0
	INDIAN RESERV	12/31/2014	1.000	0	0	0	0	0	0	0
	LEAD SMELTERS	04/27/2022	TP	0	-	-	-	-	0	0
	US AIRS	10/12/2016	TP	0	-	-	-	-	0	0
	FINDS	05/13/2022	TP	0	-	-	-	-	0	0
	CUPA Listings		0.125	0	0	-	-	-	0	0
	HAZNET	12/31/2019	TP	0	-	-	-	-	0	0
	LA Co. Site Mitigation	05/26/2021	TP	0	-	-	-	-	0	0
	UIC GEO	05/23/2022	TP	0	-	-	-	-	0	0
	WDS	06/19/2007	TP	0	-	-	-	-	0	0
	MILITARY PRIV SITES	05/23/2022	TP	0	-	-	-	-	0	0
	PROJECT	05/23/2022	TP	0	-	-	-	-	0	0
	CIWQS	02/28/2022	TP	0	-	-	-	-	0	0
	NON-CASE INFO	05/23/2022	TP	0	-	-	-	-	0	0
	OTHER OIL GAS	05/23/2022	TP	0	-	-	-	-	0	0
	PROD WATER PONDS	05/23/2022	TP	0	-	-	-	-	0	0
	SAMPLING POINT	05/23/2022	TP	0	-	-	-	-	0	0
	WELL STIM PROJ	05/23/2022	TP	0	-	-	-	-	0	0
	- Totals --			0	0	0	0	0	0	0

Site Information Report

Request Date: JULY 18, 2022
Search Type: COORD
Request Name: CHRIS HAYDEN
Job Number: NA

Target Site: 49560 230TH STREET
LANCASTER, CA 93536

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	118.536652	118.5366520 - 118ˆ 32’ 11.94’’	Easting:	359394.6
Latitude:	34.780067	34.7800670 - 34ˆ 46’ 48.24’’	Northing:	3849532.5
Elevation:	2830 ft. above sea level		Zone:	Zone 11

Demographics

Sites: 0 **Non-Geocoded:** 0 **Population:** N/A

RADON

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 93536

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.600 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

Site Information Report

RADON

State Database: CA Radon

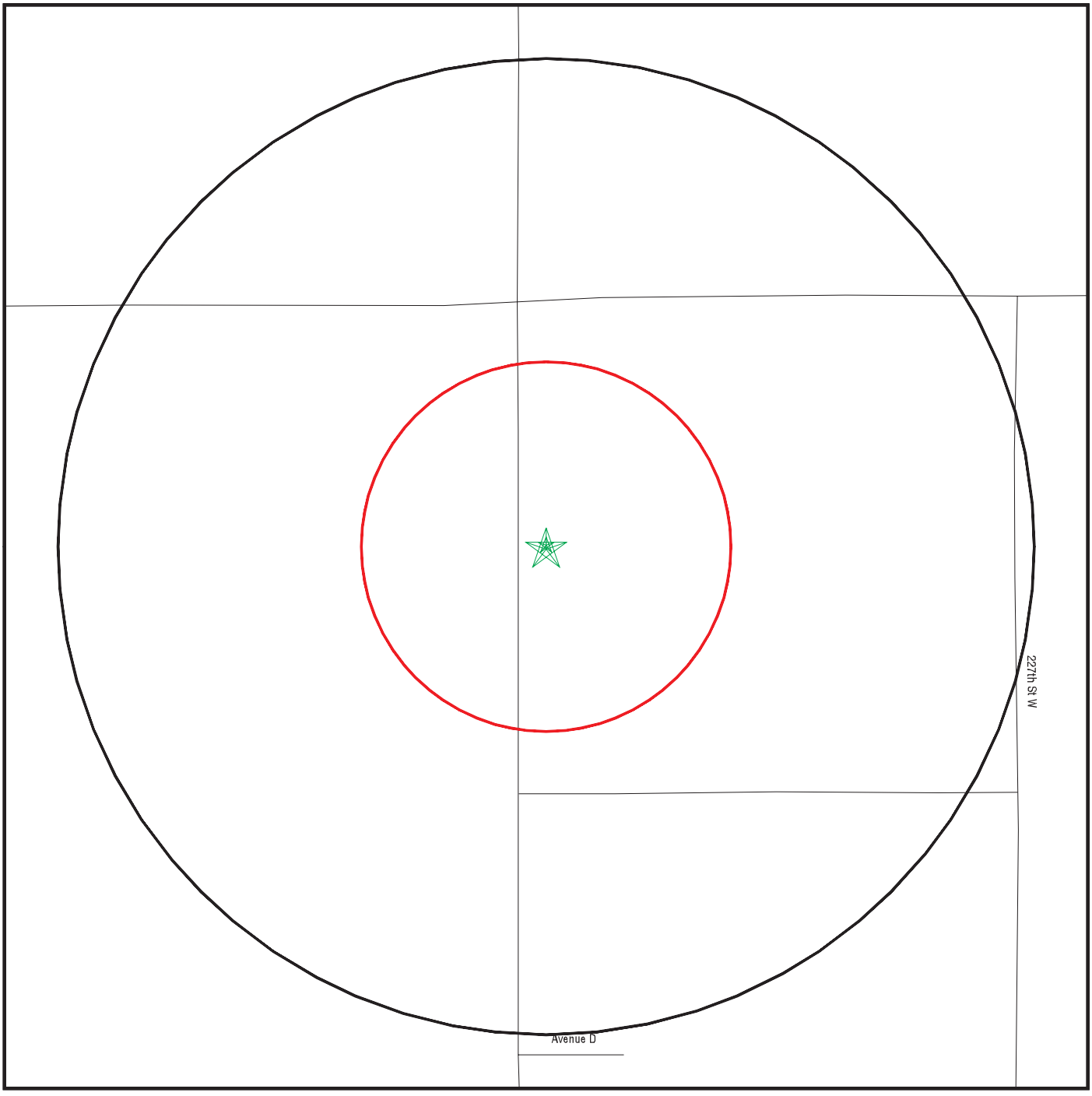
Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93536	32	1

Environmental FirstSearch

0.25 Mile Radius
Non ASTM Map, Spills, FINDS

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 34.780067 Longitude: 118.536652)

▲ Identified Sites

Sensitive Receptors

National Priority List Sites

Indian Reservations BIA

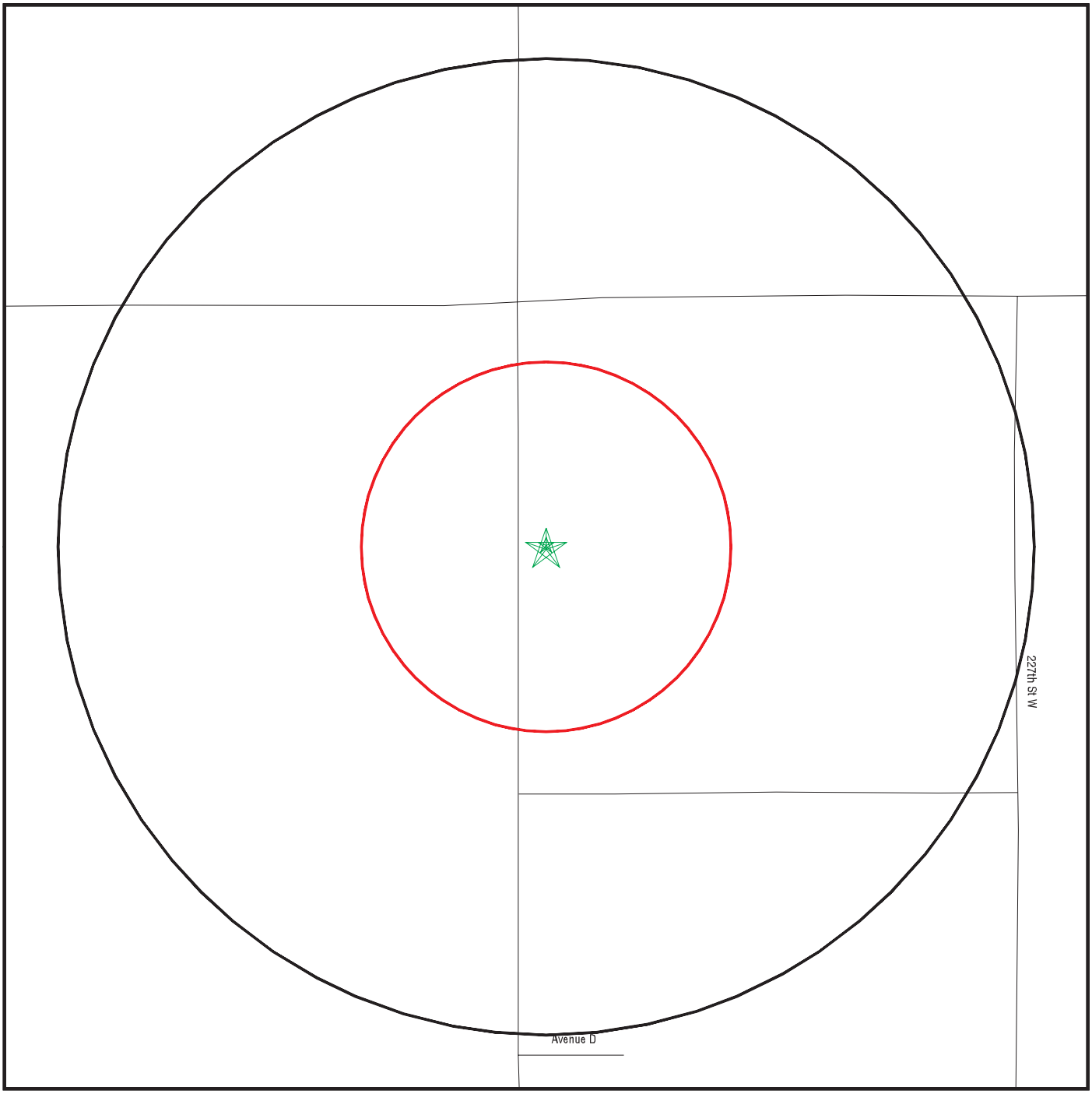
EDR Reference Code (EDR Internal use only): 07056001.10r
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.
22-07-18.12:44:45.Mon

Environmental FirstSearch

0.25 Mile Radius

ASTM MAP: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 34.780067 Longitude: 118.536652)

▲ Identified Sites

National Priority List Sites

Indian Reservations BIA

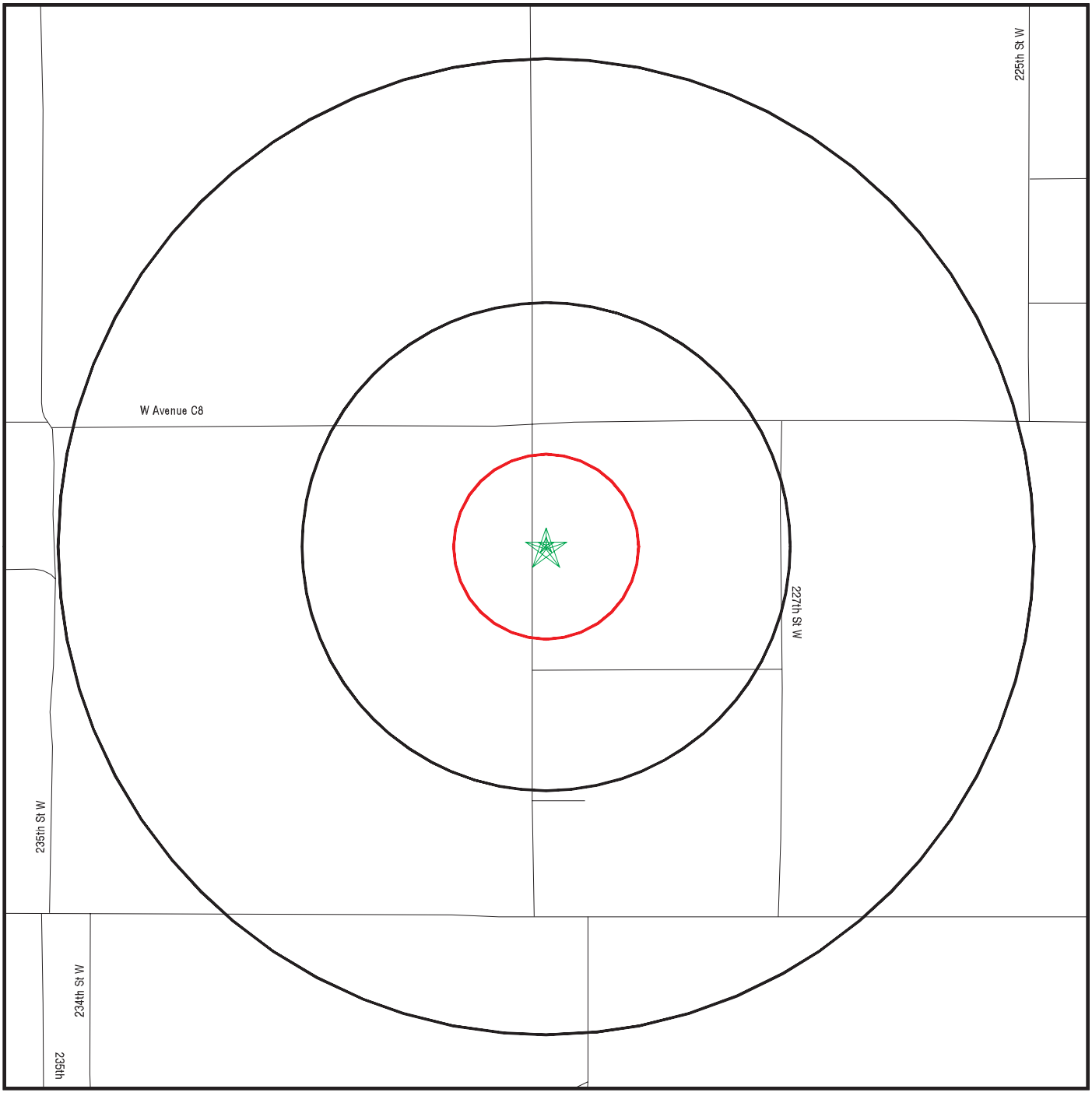
EDR Reference Code (EDR Internal use only): 07056001.10r
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.
22-07-18.12:43:27.Mon

Environmental FirstSearch

0.500 Mile Radius

ASTM MAP: CERCLIS, RCRATSD, LUST, SWL

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; **Red Ring Represents 500 ft. Radius**

★ **Target Property (Latitude: 34.780067 Longitude: 118.536652)**

▲ **Identified Sites**

National Priority List Sites

Indian Reservations BIA

EDR Reference Code (EDR Internal use only): 07056001.10r

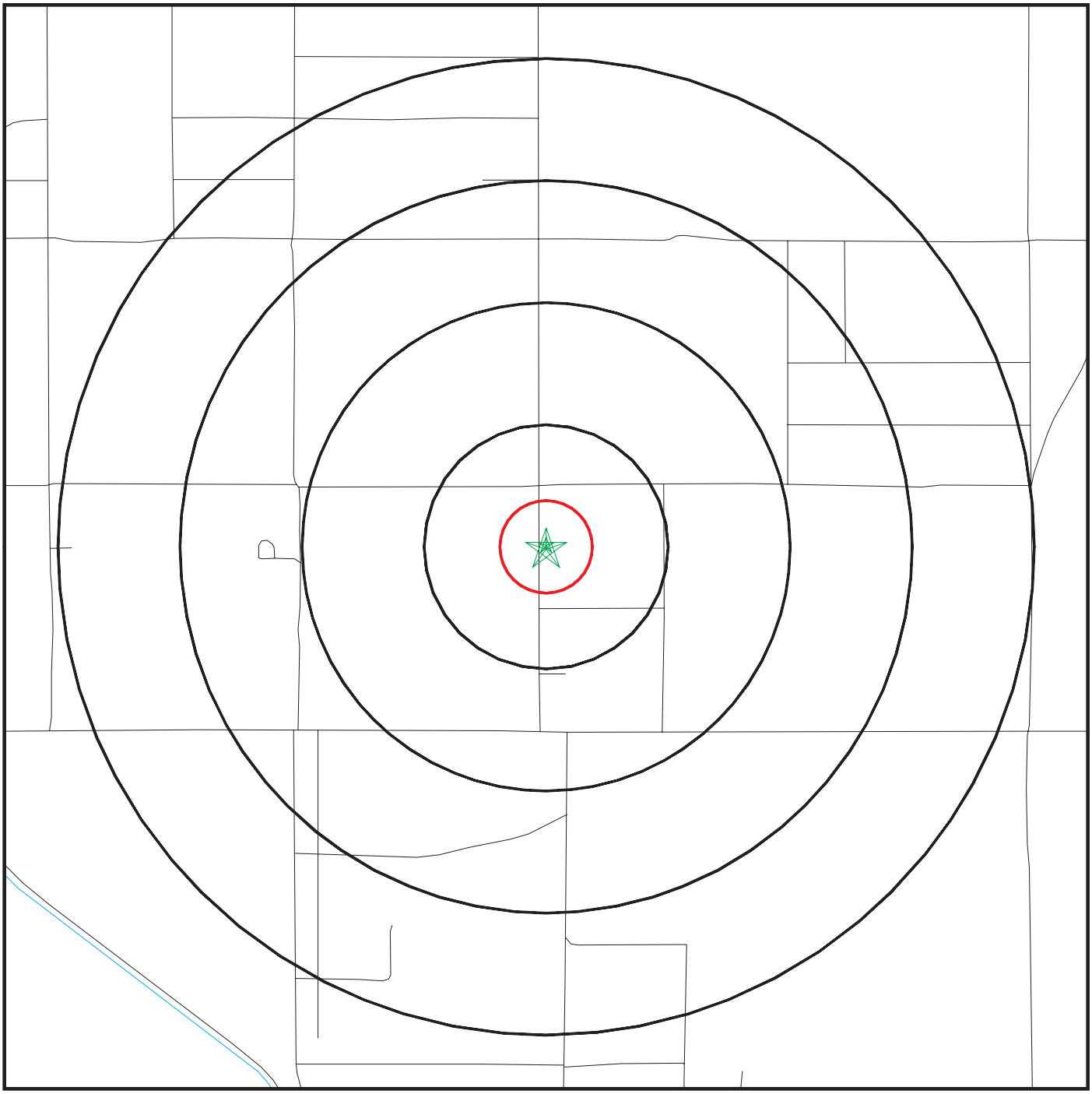
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.

22-07-18.12:42:15.Mon

Environmental FirstSearch

1.000 Mile Radius
ASTM MAP: NPL, RCRACOR, STATES Sites

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 34.780067 Longitude: 118.536652)

▲ Identified Sites

National Priority List Sites

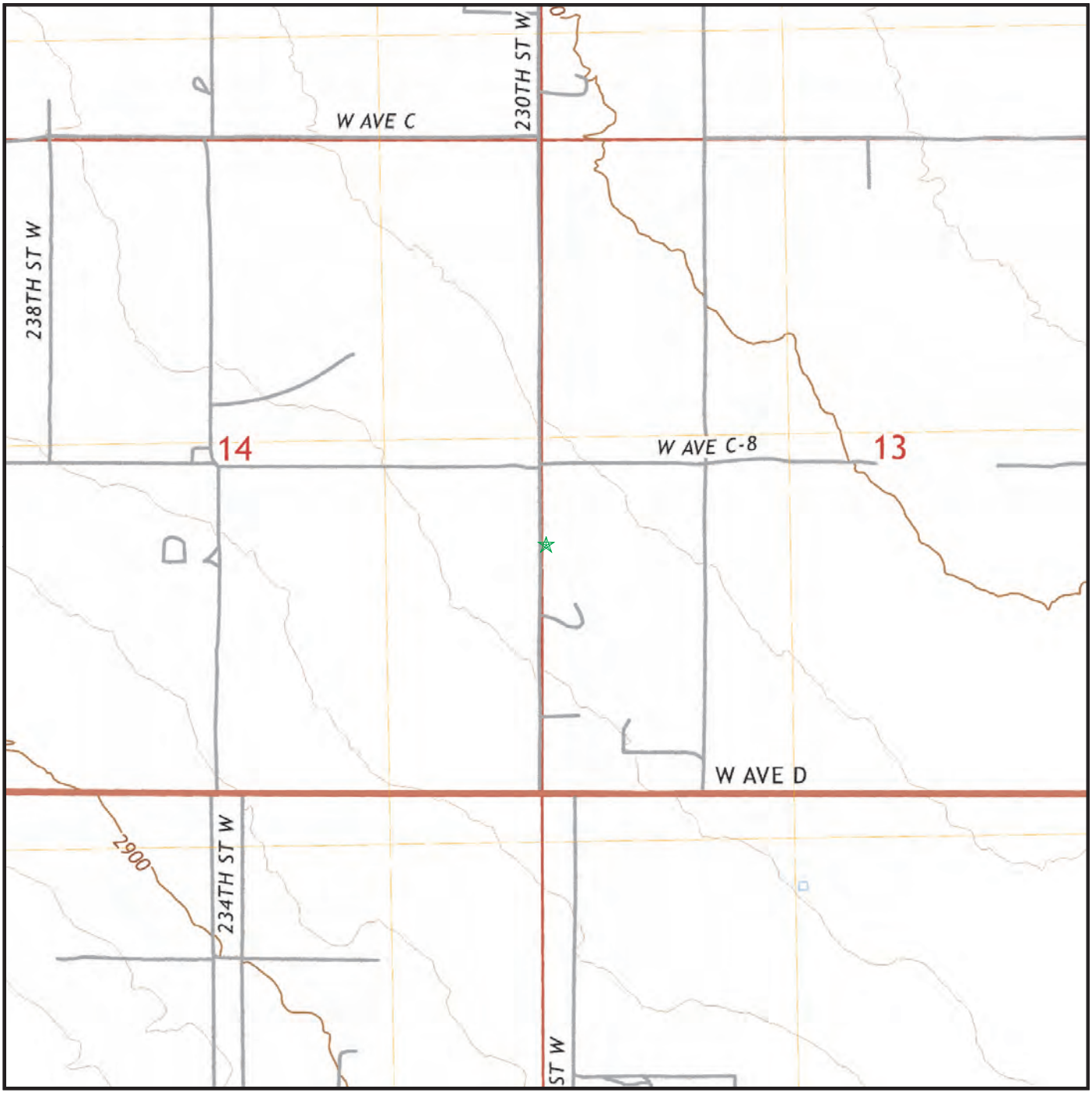
Indian Reservations BIA

EDR Reference Code (EDR internal use only): 07056001.10r
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.
22-07-18.12:41:22.Mon

Site location Map

Topo: 0.75 Mile Radius

49560 230TH STREET LANCASTER, CA 93536



Map Image Position: TP
Map Reference Code & Name: 11994282 Neenach School
Map State(s): CA
Version Date: 2018

Target Site Summary Report

Target Property: 49560 230TH STREET
LANCASTER, CA 93536

JOB: NA

TOTAL: 0 GEOCODED: 0 NON GEOCODED: 0

Map ID	DB Type --ID/Status	Site Name	Address	Dist/Dir	ElevDiff	Page No.

No sites found for target address

NO SITES FOUND

Database Descriptions

NPL: NPL National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices. NPL - National Priority List Proposed NPL - Proposed National Priority List Sites.

NPL Delisted: Delisted NPL The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Delisted NPL - National Priority List Deletions

CERCLIS: SEMS SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL. SEMS - Superfund Enterprise Management System

NFRAP: SEMS-ARCHIVE SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site. SEMS-ARCHIVE - Superfund Enterprise Management System Archive

RCRA COR ACT: CORRACTS CORRACTS identifies hazardous waste handlers with RCRA corrective action activity. CORRACTS - Corrective Action Report

RCRA TSD: RCRA-TSDF RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste. RCRA-TSDF - RCRA - Treatment, Storage and Disposal

RCRA GEN: RCRA-LQG RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. RCRA-LQG - RCRA - Large Quantity Generators RCRA-SQG - RCRA - Small Quantity Generators. RCRA-VSQG - RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators).

Federal IC / EC: US ENG CONTROLS A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. US ENG CONTROLS - Engineering Controls Sites List US INST CONTROLS - Institutional Controls Sites List.

Database Descriptions

ERNS: ERNS Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances. ERNS - Emergency Response Notification System

State/Tribal NPL: RESPONSE Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. RESPONSE - State Response Sites

State/Tribal CERCLIS: ENVIROSTOR The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. ENVIROSTOR - EnviroStor Database

State/Tribal SWL: SWF/LF (SWIS) Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites. SWF/LF (SWIS) - Solid Waste Information System

State/Tribal LTANKS: SAN MATEO CO. LUST ORANGE CO. LUST - List of Underground Storage Tank Cleanups. LUST REG 5 - Leaking Underground Storage Tank Database. RIVERSIDE CO. LUST - Listing of Underground Tank Cleanup Sites. SOLANO CO. LUST - Leaking Underground Storage Tanks. LUST REG 8 - Leaking Underground Storage Tanks. VENTURA CO. LUST - Listing of Underground Tank Cleanup Sites. SAN FRANCISCO CO. LUST - Local Oversite Facilities. SONOMA CO. LUST - Leaking Underground Storage Tank Sites. NAPA CO. LUST - Sites With Reported Contamination. LUST REG 9 - Leaking Underground Storage Tank Report. LUST - Leaking Underground Fuel Tank Report (GEOTRACKER). LUST REG 4 - Underground Storage Tank Leak List. LUST REG 6L - Leaking Underground Storage Tank Case Listing. LUST SANTA CLARA - LOP Listing. LUST REG 6V - Leaking Underground Storage Tank Case Listing. LUST REG 7 - Leaking Underground Storage Tank Case Listing. LUST REG 1 - Active Toxic Site Investigation. SAN DIEGO CO. SAM - Environmental Case Listing. LUST REG 2 - Fuel Leak List. LUST REG 3 - Leaking Underground Storage Tank Database. Orange County Underground Storage Tank Cleanups (LUST). LUST REG 3 - List of Underground Storage Tank Cleanups INDIAN LUST R8 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R1 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R5 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R6 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R4 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R10 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R9 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R7 - Leaking Underground Storage Tanks on Indian Land. CPS-SLIC - Statewide SLIC Cases (GEOTRACKER). SLIC REG 1 - Active Toxic Site Investigations. SLIC REG 2 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 3 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 4 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 5 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 6V - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 6L - SLIC Sites. SLIC REG 7 - SLIC List. SLIC REG 8 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. Sacramento Co. CS - Toxic Site Clean-Up List. SLIC REG 9 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing.

State/Tribal Tanks: UST CLOSURE MILITARY UST SITES - Military UST Sites (GEOTRACKER). UST - Active UST Facilities. Active UST facilities gathered from the local regulatory agencies UST - Active UST Facilities AST - Aboveground Petroleum Storage Tank Facilities. INDIAN UST R4 - Underground Storage Tanks on Indian Land. INDIAN UST R10 - Underground Storage Tanks on Indian Land. INDIAN UST R1 - Underground Storage Tanks on Indian Land. INDIAN UST R6 - Underground Storage Tanks on Indian Land. INDIAN UST R5 - Underground Storage Tanks on Indian Land. INDIAN UST R8 - Underground Storage Tanks on Indian Land. INDIAN UST R9 - Underground Storage Tanks on Indian Land. INDIAN UST R7 - Underground Storage Tanks on Indian Land.

Database Descriptions

State/Tribal VCP: VCP Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs. VCP - Voluntary Cleanup Program Properties SAN FRANCISCO MAHER - Maher Ordinance Property Listing.

US Brownfields: US BROWNFIELDS Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs. US BROWNFIELDS - A Listing of Brownfields Sites

Other SWF: VENTURA CO. LF CA LA LF - City of Los Angeles Landfills. WMUDS/SWAT - Waste Management Unit Database. SAN DIEGO CO. LF - Solid Waste Facilities. LOS ANGELES CO. LF - List of Solid Waste Facilities. Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites. LOS ANGELES CO. LF - Inventory of Illegal Abandoned and Inactive Sites

Other Haz Sites: SCH This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose. SCH - School Property Evaluation Program SAN DIEGO CO. HMMD - Hazardous Materials Management Division Database. CERS HAZ WASTE - CERS HAZ WASTE. US CDL - Clandestine Drug Labs. PFAS - PFAS Contamination Site Location Listing. AQUEOUS FOAM - Former Fire Training Facility Assessments Listing.

Other Tanks: SWEEPS UST Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list. SWEEPS UST - SWEEPS UST Listing ALAMEDA CO. UST - Underground Tanks. KERN CO. UST - Underground Storage Tank Sites & Tank Listing. MARIN CO. UST - Underground Storage Tank Sites. NAPA CO. UST - Closed and Operating Underground Storage Tank Sites. ORANGE CO. UST - List of Underground Storage Tank Facilities. RIVERSIDE CO. UST - Underground Storage Tank Tank List. SAN FRANCISCO CO. UST - Underground Storage Tank Information. SOLANO CO. UST - Underground Storage Tanks. SUTTER CO. UST - Underground Storage Tanks. VENTURA CO. UST - Underground Tank Closed Sites List. LOS ANGELES UST - Active & Inactive UST Inventory. YOLO CO. UST - Underground Storage Tank Comprehensive Facility Report. EL SEGUNDO UST - City of El Segundo Underground Storage Tank. LONG BEACH UST - City of Long Beach Underground Storage Tank. UST MENDOCINO - Mendocino County UST Database. UST SAN JOAQUIN - San Joaquin Co. UST. TORRANCE UST - City of Torrance Underground Storage Tank. SAN FRANCISCO AST - Aboveground Storage Tank Site Listing. LOS ANGELES AST - Active & Inactive AST Inventory. CERS TANKS - California Environmental Reporting System (CERS) Tanks.

Local Land Records: DEED Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners. DEED - Deed Restriction Listing

Database Descriptions

Spills: HMIRS Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT. HMIRS - Hazardous Materials Information Reporting System CHMIRS - California Hazardous Material Incident Report System. Orange Co. Industrial Site - List of Industrial Site Cleanups.

Other: RCRA NonGen / NLR RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste. RCRA NonGen / NLR - RCRA - Non Generators / No Longer Regulated FEDLAND - Federal and Indian Lands. TSCA - Toxic Substances Control Act. TRIS - Toxic Chemical Release Inventory System. SSTS - Section 7 Tracking Systems. RAATS - RCRA Administrative Action Tracking System. PRP - Potentially Responsible Parties. PADS - PCB Activity Database System. ICIS - Integrated Compliance Information System. FTTS - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). FTTS INSP - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). MLTS - Material Licensing Tracking System. RADINFO - Radiation Information Database. BRS - Biennial Reporting System. INDIAN RESERV - Indian Reservations. LEAD SMELTER 1 - Lead Smelter Sites. LEAD SMELTER 2 - Lead Smelter Sites. US AIRS (AFS) - Aerometric Information Retrieval System Facility Subsystem (AFS). US AIRS MINOR - Air Facility System Data. FINDS - Facility Index System/Facility Registry System. CUPA - CUPA Resources List. CUPA AMADOR - CUPA Facility List. CUPA BUTTE - CUPA Facility Listing. CUPA CALVERAS - CUPA Facility Listing. CUPA COLUSA - CUPA Facility List. CUPA DEL NORTE - CUPA Facility List. CUPA EL DORADO - CUPA Facility List. CUPA FRESNO - CUPA Resources List. CUPA HUMBOLDT - CUPA Facility List. CUPA GLENN - CUPA Facility List. CUPA TULARE - CUPA Facility List. CUPA LIVERMORE-PLEASANTON - CUPA Facility Listing. CUPA SAN BENITO - CUPA Facility List. CUPA IMPERIAL - CUPA Facility List. CUPA TEHAMA - CUPA Facility List. CUPA PLUMAS - CUPA Facility List. CUPA LASSEN - CUPA Facility List. CUPA TRINITY - CUPA Facility List. CUPA STANISLAUS - CUPA Facility List. CUPA SAN FRANCISCO CO - CUPA Facility Listing. CUPA INYO - CUPA Facility List. CUPA KINGS - CUPA Facility List. CUPA LAKE - CUPA Facility List. CUPA MADERA - CUPA Facility List. CUPA MERCED - CUPA Facility List. CUPA MONO - CUPA Facility List. CUPA MONTEREY - CUPA Facility Listing. CUPA NEVADA - CUPA Facility List. CUPA SAN LUIS OBISPO - CUPA Facility List. CUPA SANTA BARBARA - CUPA Facility Listing. CUPA SANTA CLARA - Cupa Facility List. CUPA SANTA CRUZ - CUPA Facility List. CUPA SHASTA - CUPA Facility List. CUPA SONOMA - Cupa Facility List. CUPA TUOLUMNE - CUPA Facility List. CUPA YUBA - CUPA Facility List. KERN CO CUPA - CUPA Facility List. HAZNET - Facility and Manifest Data. Sacramento Co. ML - Master Hazardous Materials Facility List. San Bern. Co. Permit - Hazardous Material Permits. LA Co. Site Mitigation - Site Mitigation List. UIC GEO - Underground Injection Control Sites (GEOTRACKER). WDS - Waste Discharge System. MILITARY PRIV SITES - Military Privatized Sites (GEOTRACKER). PROJECT - Project Sites (GEOTRACKER). WDR - Waste Discharge Requirements Listing. SAN DIEGO CO LOP - Local Oversight Program Listing. CIWQS - California Integrated Water Quality System. CERS - CalEPA Regulated Site Portal Data. NON-CASE INFO - Non-Case Information Sites (GEOTRACKER). OTHER OIL GAS - Other Oil & Gas Projects Sites (GEOTRACKER). PROD WATER PONDS - Produced Water Ponds Sites (GEOTRACKER). SAMPLING POINT - Sampling Point ? Public Sites (GEOTRACKER). WELL STIM PROJ - Well Stimulation Project (GEOTRACKER). MINES MRDS - Mineral Resources Data System. PCS INACTIVE - Listing of Inactive PCS Permits. PCS - Permit Compliance System. HWTS - Hazardous Waste Tracking System. LOS ANGELES CO LF METHANE - Methane Producing Landfills. PCS ENF - Enforcement data.

Database Sources

NPL: EPA

Updated Quarterly

NPL Delisted: EPA

Updated Quarterly

CERCLIS: EPA

Updated Quarterly

NFRAP: EPA

Updated Quarterly

RCRA COR ACT: EPA

Updated Quarterly

RCRA TSD: Environmental Protection Agency

Updated Quarterly

RCRA GEN: Environmental Protection Agency

Updated Quarterly

Federal IC / EC: Environmental Protection Agency

Varies

ERNS: National Response Center, United States Coast Guard

Updated Quarterly

State/Tribal NPL: Department of Toxic Substances Control

Updated Quarterly

State/Tribal CERCLIS: Department of Toxic Substances Control

Updated Quarterly

State/Tribal SWL: Department of Resources Recycling and Recovery

Updated Quarterly

State/Tribal LTANKS: California Regional Water Quality Control Board Central Coast Region (3)

No Update Planned

Database Sources

State/Tribal Tanks: SWRCB

Updated Semi-Annually

State/Tribal VCP: Department of Toxic Substances Control

Updated Quarterly

US Brownfields: Environmental Protection Agency

Updated Semi-Annually

Other SWF: Environmental Health Division

No Update Planned

Other Haz Sites: Department of Toxic Substances Control

Updated Quarterly

Other Tanks: State Water Resources Control Board

No Update Planned

Local Land Records: DTSC and SWRCB

Updated Semi-Annually

Spills: U.S. Department of Transportation

Updated Quarterly

Other: Environmental Protection Agency

Updated Quarterly

Street Name Report for Streets near the Target Property

Target Property: 49560 230TH STREET
LANCASTER, CA 93536

JOB: NA

Street Name	Dist/Dir	Street Name	Dist/Dir
227th St W	0.24 East		
230th St W	0.01 West		
W Avenue C8	0.13 North		

APPENDIX E

STATEMENT OF QUALIFICATIONS FOR HEI CORPORATION

HEI CORPORATION

HEI Corporation was established in 1994 to respond to a need that exists in the environmental industry. There were many outstanding "full service" environmental firms in Southern California. Very few, however, specialized in performing Phase I Environmental Site Assessments (ESA's). For many firms, the ESA was and is approached as a way of positioning themselves to get any additional work recommended therein. This had led many to recognize the inherent conflict of interest that this represents. HEI Corporation eliminates this potential conflict in that no other environmental services are offered.

HEI Corporation, which also does business as Hayden Environmental, recognizes the importance of an ESA. The company was formed with the expressed purpose of providing the best, most complete, most thoroughly researched report available. At HEI Corporation, our fees are always competitive. Also, because we are not in the business of conducting Site Investigations (phase II's) there is no undue incentive to recommend them.

Our assessments are grounded in a solid understanding of the primary function of an ESA. Liability for environmental contamination can be expensive and time consuming in the extreme. While there is no guarantee that it will, an ESA is designed to allow a party coming into possession of real property, either as a tenant, buyer or lender forced to foreclose, to avail themselves of the "innocent landowner" defense. ESA's can also be a very valuable tool for an owner or tenant to establish a baseline condition of a property proper to the commencement of a lease.

Hayden Environmental has researched the law and adheres to the standards for environmental assessments promulgated by the ASTM Designation E 1527-13.

All Hayden Environmental Phase I assessments will include these five basic components:

- Subject property inspection and surrounding property observation
- Federal, state, tribal and local agency environmental database review
- County and /or municipal government record review
- Historical use review using aerial photographs, Sanborn maps and/or archive city directories
- Interviews with the current and former owners and occupants of the subject property

Hayden Environmental is fully insured, with policy coverage of $2,000,000 for Professional Liability and $1,000,000 for General Liability.

CHRISTOPHER M. HAYDEN

Chris Hayden, EP, has been in the environmental field since 1991. He began with a large multinational firm as the regional sales and marketing representative for Western U.S. He dealt primarily with firms in the energy, mining and real estate development fields. Seeking to broaden his "hands on" experience, he began working with a local firm in 1992. While there, he had the opportunity to work on a variety of projects, including environmental site assessments and site investigations. Seeing the need for a firm that specialized in conducting reliable, thorough and reasonably priced environmental site assessments while avoiding potential conflicts of interest, he formed Hayden Environmental in 1994. Hayden, through his years of experience, has earned the designation of Environmental Professional (EP) as defined in Section 40 C.F.R. §312.10(b).

Mr. Hayden also serves on the ASTM E50 Committee which reviews, revises and enforces the standards for environmental assessments currently promulgated by the ASTM Designation E 1527-13.

Prior to 1991 Hayden had been in the real estate industry for twelve years. He last worked as an industrial real estate broker with Grubb & Ellis in Newport Beach, CA.

Hayden has a Bachelor of Arts Degree in Biology from Humboldt State University in Arcata, California. He has taken several classes in the Environmental Site Investigation and Remediation Certificated program at the University of California at Irvine.

ENVIRONMENTAL COURSES/SEMINARS COMPLETED

40 Hour HazMat Health and Safety Training

ASTM Standards Technology Training in Phase I Site Assessments for Environxnental Professionals

Principles of Hazardous Materials Management

Regulatory Framework of Hazardous and Toxic Substances

Groundwater Hydrology: Monitoring, Protection and Clean-up

The Site Investigation and Remedial Feasibility Process

The Site Remediation Process for Hazardous Substance Impacts

Environmental Aspects of Souls Engineering and Geology

Innovative Soils Gas Monitoring and Remediation Applications

A Partial List of Clients Includes:

CLIENT	CLIENT
California Business Bank	First California Bank
American Business Bank	Comerica Bank
AmPac Business Capital	U. S. Trust Co.
Renewable Properties	First Citizens Bank
First Security Bank	Bank of the West
Pacific Enterprise Bank	PFF Bank & Trust
Community Bank	Southland EDC
Borrego Solar	Wells Fargo
California Bank & Trust	Investment Building Group (IBG)
Farmers & Merchants Trust	Messenger Investment Company
Spectrum Commercial Lending	Descansando Properties
City National Bank	Steadfast Companies
Palm Desert National Bank	Shaw Properties
1st Capital Bank	Rexco Real Estate Development
California Statewide CDC	Cardinal Development Company
First American Bank	Lord Constructors
Hamni Bank	Caribou Industries
First Foundation Bank	Western National Realty Advisors
Sun Country Bank	Sares-Regis Group
Union Bank of California	Gilmore Associates
Bank of China	Aardex Corporation
Uniti Bank	Arlen Capital
Dynex Financial, Inc.	Martin Building Company
Silvergate Bank	NPL Construction Co.
Finova Corporation	Carmenita Investment Properties
ARCS Commercial Mortgage	The Davidson Group
GE Financial Corporation	National Golf Properties
Sanwa Bank	Nextel Communications
BBVA Compass	Coca Cola Enterprises
First Union Small Business Capital	General Telephone Company
California Republic Bank	Intuit
Bank One	Rockwell International
Sun Life of America	Pacific Sales
City of Redlands	University of Southern California
City of Los Angeles CRA	Pepperdine University

REFERENCES

Lenders

Mr. Gary Cook
American Business Bank
523 West 6th Street, Suite 900
Los Angeles, CA 90014
Email: gcook@americanbb.bank

Mr. Grady Kjesbo
Community Bank
2100 Main Street
Irvine, CA 92814
T: 949-223-4148
Email: gkjesbo@cbank.com

Real Estate Investor/Developer

Mr. Brad Kaplan
Descansando Properties
PO Box 4792
Covina, CA 91723
Email: bkaplan2723@yahoo.com

Mr. Tim Hawke
President
Strata Realty
2433 Pomona Rincon Road
Corona, CA 92880
Email: thawke@stratarealty.com

Real Estate Broker

Mr. Richard C. John
Executive Vice President
Branch Manager
Daum Commercial Real Estate Services
3595 East Inland Empire Blvd., Bldg. 5
Ontario, CA 91764
T: 909-980-1234
Email: rj@daumcommercial.com

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 10/9/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Van Oppen & Co. 2, Inc. VOCO 2 Insurance & Risk Control Services P.O. Box 793 Teton Village WY 83025	**CONTACT NAME:** Brenda Todd **PHONE (A/C, No, Ext):** 800-746-0048 **FAX (A/C, No):** **E-MAIL ADDRESS:** service@vanoppenco2.com
INSURED HEICO-1 HEI Corporation 1805 Peninsula Pl Costa Mesa CA 92627	**INSURER(S) AFFORDING COVERAGE** / **NAIC #** **INSURER A :** Westchester Surplus Lines / 10172 **INSURER B :** **INSURER C :** **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1037088349 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** ☐ CLAIMS-MADE ☒ OCCUR X CPL(Pollution) GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY ☐ PRO-JECT ☐ LOC OTHER:	Y	Y	G24331337 005	11/4/2020	11/4/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 50,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
A	**AUTOMOBILE LIABILITY** ANY AUTO ALL OWNED AUTOS ☐ SCHEDULED AUTOS X HIRED AUTOS ☒ NON-OWNED AUTOS	Y	Y	G24331337 005	11/4/2020	11/4/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
	☐ **UMBRELLA LIAB** ☐ OCCUR ☐ **EXCESS LIAB** ☐ CLAIMS-MADE ☐ DED ☐ RETENTION $						EACH OCCURRENCE AGGREGATE $	$ $ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N/A **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below						☐ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $ $
A	Professional Liability "Claims Made" Subject to GL Aggregate			G24331337 005	11/4/2020	11/4/2022	Each Claim Aggregate	1,000,000 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

General Information

CERTIFICATE HOLDER

General Information

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



© 1988-2014 ACORD CORPORATION. All rights reserved.

Appendix I

Onsite and Offsite Drainage Report

ONSITE AND OFFSITE DRAINAGE REPORT

230TH STREET COMMUNITY SOLAR AND BATTERY ENERGY STORAGE SYSTEM PROJECT

SE Corner of W Avenue C 8 and 230th St W

Los Angeles County, CA 93536

CUP PLAN CASE NO. PRJ2023-002405

HYDROLOGY PLAN CASE NO. ESTU 2023000704

PREPARED FOR

RPCA Solar 12, LLC

44 Montgomery Street, Suite 3150
San Francisco, CA 94104
Contact: Brian Madigan
(724) 413-8688
bmadigan@renewprop.com

PREPARED BY

Kimley»Horn

Project Manager: Chris Young, PE (RCE #91146)
660 South Figueroa Street, Suite 2050
Los Angeles, CA 90017
(213) 261-4100

Project Engineer: David Bossu, PE (RCE# 78103)
1100 Town and Country Rd, Suite 700
Orange, CA 92868
(714) 939-1030



October 2024

TABLE OF CONTENTS

1 INTRODUCTION 2
1.1 Project Background 2
1.2 Subject Tract Description 2
2 METHODOLOGY 3
2.1 Hydrology 3
2.2 LID Mitigation Requirements 3
3 ONSITE AND OFFSITE DRAINAGE ANALYSIS 4
3.1 Drainage Conditions 4
3.2 Onsite Drainage Analysis 4
4 PROPOSED MITIGATIONS 4
5 DISCUSSION OF POTENTIAL IMPACTS 8
5.1 General Impacts 8
6 REFERENCES 9

LIST OF TABLES

Table 1. Offsite Peak Flow Rates (50-Year Storm)
Table 2. Basin Sizing

LIST OF FIGURES

Figure 1. Vicinity Map
Figure 2. FEMA FIRM
Figure 3. Existing Conditions Onsite Hydrology Map
Figure 4. Proposed Conditions Onsite Hydrology Map
Figure 5. Drainage Area Map

LIST OF APPENDICES

Appendix A. Figures

Appendix B. Onsite Hydrologic Calculations

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Kimley-Horn was retained by RPCA Solar 12, LLC to conduct a hydrologic analysis for the flow entering the proposed Solar Photovoltaic (PV) Generation Facility, 230th Street Community Solar and Battery Energy Storage System Project, in unincorporated Los Angeles (LA) County, California (Figure 1). The purpose of this report is to provide the results of the drainage analysis, evaluate the potential impacts, and provide recommendations associated with storm runoff.

The 230th Street Community Solar (Project) is a utility-scale Solar Generation Facility and optional battery energy storage system (BESS) that will generate, charge, store, and discharge renewable solar electricity with minimal environmental impacts. The Project facilities will operate year-round, producing electric power during daytime hours and discharging stored electric power at night. The Project would have a generating capacity of up to 6.4 megawatts (MW) alternating current (AC).

PV solar module arrays will be installed on a single-axis tracker racking system that is mounted on piles driven into the ground. These arrays, along with string inverters and project equipment, will be enclosed by a chain link perimeter fence with a barbed wire top. The subject tract will include at-grade perimeter and internal access roads. Access to the subject tract will be provided along 230th Street West. Offsite transmission will consist of interconnecting to the existing distribution grid and are thus not included in this study.

1.2 SUBJECT TRACT DESCRIPTION

The subject tract is approximately 31 acres and located in unincorporated Los Angeles County, CA. The subject tract is bounded by W Avenue C 8 to the north, 227th Street W to the east, residential units and W Avenue D (Highway 138) to the south, and 230th Street W to the west.

Stormwater runoff from the San Gabriel Mountain range generally flows northwest and passes through the subject tract. The California Aqueduct is located at the foothills of the San Gabriel Mountains, but drainage can pass above and below via existing above-grade concrete channels and underground culverts.

The subject tract drains to from the southwest to northeast corner of the subject tract, with slopes ranging from less than 1% to 3% throughout the subject tract. The subject tract is surrounded by farmland, undeveloped land, and a nearby solar farm to the northeast.

The subject tract is within FEMA Flood Zone X (unshaded) and adjacent to Flood Zone A (Figure 2). Zone A is defined as special flood hazard areas (SFHA's) subject to inundation by the 1% annual chance flood, with no base flood elevations determined. FEMA Flood Zone X (unshaded) is defined as areas outside the 0.2% annual chance floodplain as identified by FEMA Effective Flood Insurance Rate Map (FIRM) for Los Angeles County (Panel 06037C0100F, Effective 09/26/2008). The project will avoid any grading and development activities within the Flood Zone A footprint.

2 METHODOLOGY

2.1 HYDROLOGY

Onsite hydrologic calculations were performed based on the Modified Rational Method using the LA County HydroCalc software to determine peak flow rates for 2, 5, 10, 25, and 50-year storm events based on the LA County Hydrology Manual. Primary inputs for this program include precipitation depth, LA County soil classification, drainage area, impervious coverage, flow path length and slope.

2.2 LID MITIGATION REQUIREMENTS

This report will demonstrate compliance with the two main goals of Los Angeles County Department of Public Works (LACDPW) as conveyed by the Land Development Division. The first goal is to eliminate downstream impacts of development by affecting downstream flow characteristics, including flow width, depth, velocity, rate, and discharge volume. The second goal is to comply with Low Impact Development (LID) requirements per the LID Standards Manual, 2014 (LID Manual) per County Code §12.84.440.

The subject tract is approximately 31 acres in size. Due to the assumption of 10% post-developed impervious area required by LACDPW, the assumed impervious area is approximately 2.89 acres, or about 125,888 square feet. These criteria exceed the thresholds defined in LID Manual section 2.1 as follow: “over 1 acre disturbed and adding over 10,000 square feet of impervious surface.” Therefore, The Project is categorized as a Designated Project.

Mitigation of peak flow and runoff volume follows the LID Manual. Section 8 of the LID Manual discusses hydromodification requirements; Section 8.3 requires “hydrology and hydraulic frequency analyses for LID, 2-, 5-, 10-, 25-, and 50-year storm events per the LACDPW Hydraulic and Hydrology manuals”. For this application, hydromodification requires that post-development runoff conditions of the required storm events do not exceed pre-development runoff conditions of the same storm events. Per Section 6.2 of the LID Manual, the volume-based LID storm event, or stormwater quality design volume (SWQDv), is defined as the 85th percentile, 24-hour storm dictated by LA County or the 0.75-inch, 24-hour storm applied across the tributary watershed, whichever is greater. This analysis of multiple storm events was performed for onsite drainage areas only.

Per the direction of LACDPW, Kimley-Horn understands the following design assumptions were made to match the input parameters of LID design on previous solar sites in LA County:

1. Required retention: any incremental runoff (flow rate and hydrograph volume) from the 2-, 5-, 10-, 25-, and 50-year storm events (unburned and unbulked).
2. Required minimum assumed proposed percent impervious in Array Fields: 10%
3. Requested maximum ponding depth in retention basins without fencing: 18-inches
4. Requested basin location: middle of the subject tract or adequately upstream of the subject tract outflow point to promote normalization of discharge to sheet flow (or pre-development flow condition) prior to discharging from the subject tract to neighboring properties; basins may not be located along the downstream edge of the subject tract adjacent to neighboring properties.

3 ONSITE AND OFFSITE DRAINAGE ANALYSIS

3.1 DRAINAGE CONDITIONS

The contributing offsite drainage watershed for the subject tract is approximately 6.39 mi^2 (~4,089 acres). An offsite drainage analysis was performed using a 2D hydraulic model. The Q_{50} noted on the civil plans was developed using the offsite analysis. At the request of the County, the detailed discussion was removed from this report since the County is only reviewing onsite impacts at this time.

All horizontal coordinates are based on NAD 83, California State Plane, Zone V, US foot. All orthometric heights are based on NAVD 88. Onsite basins were delineated using onsite surveyed topo.

Runoff generated onsite, generally flows from west to east and exits The subject tract as sheet and shallow-concentrated flow. The subject tract is generally flat with most slopes under 2% and none exceeding 3%.

3.2 ONSITE DRAINAGE ANALYSIS

The onsite hydrologic analyses were completed following the methods outlined in the Los Angeles County Department of Public Works Hydrology Manual dated January 2006 and referencing the County of Los Angeles Department of Public Works Low Impact Development Standards Manual dated February 2014. Los Angeles County's HydroCalc software was used to estimate times of concentration, peak flows, and unit hydrograph volumes generated from storms up to the 50-year storm event for existing and proposed conditions. Drainage area delineation, flow path length and slope, and imperviousness were calculated using survey data and Construction Documents. The 50-year rainfall depth, soil type, and fire factor were determined using the Los Angeles County Hydrology GIS map.

4 PROPOSED MITIGATIONS

4.1.1 VOLUME

LID Manual section 6 requires that the Stormwater Quality Design Volume (SWQDv) be retained onsite and is defined as the greater of the 0.75-inch, 24-hour rain event or the 85th percentile, 24-hour rain event. The 85th percentile depth is X in, so the 0.75 inch event will govern for LID design. See Table 2 for the onsite SWQDv summary. LID Manual section 8 requires hydromodification mitigation for the 2-, 5-, 10-, 25-, and 50-year storm events and requires that any increase in runoff volume (delta) between pre- and post-development conditions be retained onsite to mitigate adverse impacts downstream. As demonstrated in the calculation summary in Table 3 below and Appendix C, the 50-year event controls volumetric retention required for onsite drainage areas because it results in the greatest delta of required events. The stormwater quality control measure of Infiltration Basin (RET-2) is recommended for the subject tract. The basin(s) were sized to retain the delta as shown on Figure 3. There are no natural drainage systems tributary to the subject tract with capital flood flow rates greater than 5,000 cfs. Therefore, sediment transport analysis is not required and was not prepared in this study.

All onsite drainage areas generally flow southwest to northeast across the subject tract and are under 40 acres. DA-1 remained generally unchanged from pre-development conditions and under 40 acres. The retention basins will be sized to retain the SWQDv from the subject tract, as shown in Table 4 and 5. The basins will be generally located on the downstream end of the subject tract,

and swales will be used as necessary to direct flow to the basins. Full calculations are in Appendix C.

Onsite infiltration basins will be excavated below existing grade per the detail shown on Figure 3. Spoils from basin excavation shall be relocated onsite, maintaining flow paths and inundation limits. Basins will be constructed perpendicular to the direction of flow in order to capture runoff from the upper portion of the subject tract.

A conservative design infiltration rate of 0.66 inches per hour was confirmed by a Supplemental Infiltration Testing Memorandum completed by Salem Engineering Group, Inc. dated March 13, 2024. A factor of safety of 1.5 was applied to the measured double ring infiltration rate to obtain the 0.66 inches per hour rate. Infiltration will be feasible and consistent with the most recent Geotechnical and Materials Engineering Division (GMED) Policy GS 200.1. The maximum drawdown time per LID Manual Stormwater Quality Control Measure Fact Sheet *RET-2: Infiltration Basin* is 96 hours. The maximum depth of water that can be infiltrated for that design infiltration rate is 5.3 ft. As shown on the detail sheet in Figure 3, proposed retention basins are sized assuming a ponding depth of 18-inches, which would result in an expected drawdown time of roughly 27.3 hours. See Table 6 for the drawdown time summary of the proposed basin. Actual ponding depths will be determined during final design but will not result in drawdown times greater than 96 hours. Additional infiltration testing may be required if basin bottoms are excavated lower than the depth of infiltration field testing (field testing was done at 12 inches below grade), pursuant to GS 200.1.

Table 2 – Onsite Hydromod Water Quality Volume (WQDv)

Subarea	Area (ac)	Impervious	Isohyetal (in)	Peak Q (cfs)	Volume (cf)
DA-1	31.02	0.10	0.75	0.58	15,082
Total	31.02			0.58	15,082

Table 3 – Onsite Proposed Hydromod Volume Comparison

Subarea	Area (ac)	Freq.	50-Year Isohyetal (in)	Impervious		Peak Q (cfs)		Volume (cf)		
				Ex.	Prop.	Ex.	Prop.	Ex.	Prop.	Delta
DA-1	31.02	2-yr	5.20	0.01	0.10	1.73	2.89	24,271	40,451	16,180
Total	31.02								Subtotal	16,180
DA-1	31.02	5-yr	5.20	0.01	0.10	2.62	4.36	36,626	61,043	24,417
Total	28.20								Subtotal	24,417
DA-1	31.02	10-yr	5.20	0.01	0.10	3.20	5.33	44,779	74,632	29,853
Total	31.02								Subtotal	29,853
DA-1	31.02	25-yr	5.20	0.01	0.10	3.93	6.55	55,064	91,774	36,710
Total	31.02								Subtotal	36,710
DA-1	31.02	50-yr	5.20	0.01	0.10	6.16	8.99	64,039	105,729	41,690
Total	31.02								Subtotal	41,690

Table 4 – Retention Volume Required

Subarea	SWQDv Required (cf)	Pre vs Post Delta Volume for 50-yr (cf)	Existing Retention Volume (cf)	Required Retention Volume (cf)
DA-1	15,082	41,690	0	41,690
			Total Required Retention Volume	41,690

Table 5 – Proposed Basin Summary

Basins	Area	SWQDv (cf)	50-yr Mitigation Volume (cf)	Required Retention Volume (cf)	Design Length (ft)	Design Width (ft)	Design Area (sf)	Design Depth (ft)	Design Volume (cf)	$V_{design} > V_{required}$?
1-6	DA-1	13,710	41,690	41,690	1,203	65	27,793	1.5	42,336	YES
Total Required Retention Volume				41,690	Total Designed Volume				42,336	

Table 6 – Infiltration Basin Drawdown

Basin	Ponding Depth (ft)	Infiltration Rate (in/hr)	Factor of Safety	Design Infiltration Rate (in/hr)	Drawdown Time (hr)
1	1.5	1	1.5	0.66	27.3

See figure 3 for comprehensive tables and depiction of onsite runoff conditions pre/post development.

4.1.2 Flow Rate, Depth, and Velocity

The analysis shows that post-development peak flow rates exceed pre-development conditions. Consequently, post-development flow depths and velocities would also exceed pre-development conditions when conveyed across original grade. The proposed infiltration retention basins compensates for changes in runoff volume as discussed above and attenuates peak flows in a similar manner; see Figure 3 for basin locations. The analysis shows no increases in runoff flow rates nor discharge volumes. Therefore, negligible increases are anticipated to depths and velocities exiting the subject tract from each onsite drainage area. The mitigation effects of the basins for the 50-year storm are consistent with LACDPW Hydromodification requirements.

4.1.3 Flow Type

Each onsite retention basin is to be constructed from existing materials in the approximate location shown unless otherwise approved by LACDPW. This design will serve to promote the normalization of excess runoff during storm events exceeding the design capacity of the basins.

4.1.4 Source Control measures

Source control measures are designated to prevent pollutants from contacting stormwater runoff or prevent discharge of contaminated stormwater runoff to the storm drain system and/or receiving water. The subject tract will be an unmanned solar facility with no proposed regularly occupied

buildings or designated parking and will not feature underground storm drain systems. The following source control measures detailed in the LID Manual are recommended for this subject tract during and/or after construction if determined to be applicable during final design:

- S-2 – Outdoor Material Storage Area
- S-3 – Trash Storage/Waste Handling Area
- S-5 – Outdoor Vehicle/Equipment Repair/Maintenance Area
- S-6 – Outdoor Vehicle/Equipment/Accessory Wash Area
- S-7 – Fuel & Maintenance Area
- S-8 – Landscape Irrigation Practices
- S-9 – Building Materials

5 DISCUSSION OF POTENTIAL IMPACTS

5.1 GENERAL IMPACTS

The proposed Project is a utility-scale Solar Generation Facility and Optional battery energy storage system (BESS) that will generate, charge, store, and discharge renewable solar electricity. The improvements to the subject tract will include the solar panels, at-grade earth perimeter and internal access roads, and the associated electrical equipment. The subject tract will be surrounded by a chain link security fence with barbed wire top.

The impacts of solar facilities on the hydrologic process and methods to quantify any impact have not been widely documented in the civil engineering industry. A study published in the Journal of Hydrologic Engineering researched the hydrologic impacts of utility scale solar generating facilities. The study utilized a model to simulate runoff from pre- and post-solar panel conditions. The study showed that the solar panels themselves have very little impact on runoff volumes or rates (Cook and McCuen, 2013). Increases in runoff were found from other well-documented causes such as increased imperviousness or significant reduction in vegetative cover. However, per LACDPW direction, this analysis conservatively assumed 10% impervious area in the post-developed condition for LID and hydromodification design.

Increases in imperviousness for the subject tract will be minimal. Onsite access roads will be gravel and/or compacted native soils. The subject tract has very little vegetation and only minor grading is proposed with minimal changes to the existing subject tract drainage patterns. However, in order to comply with LACDPW LID and hydromodification requirements, retention basins will be excavated onsite in order to attenuate assumed increases to peak flow and volume leaving the subject tract. Spoils from the basin excavation will be distributed onsite and will not substantially alter pre-development drainage patterns in order to balance earthwork on the subject tract.

6 REFERENCES

Cook, L.M. and McCuen, R.H. 2013. Hydrologic Response of Solar Impacts. Journal of Hydrologic Engineering, 18(5), 536-541.

Los Angeles County Department of Public Works, Water Resources Division. 2006. Los Angeles County Hydrology Manual. January 2006.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. Accessed 1/2017.

US Department of Agriculture, Natural Resource Conservation Service. 1986. Urban Hydrology for Small Watersheds, TR-55. June 1986.

U.S. Geological Survey (USGS). 2013. The National Elevation Dataset.

Appendix A – Figures

FIGURE 1

ANTELOPE VALLEY
Comprehensive Plan of Flood Control and Water Conservation

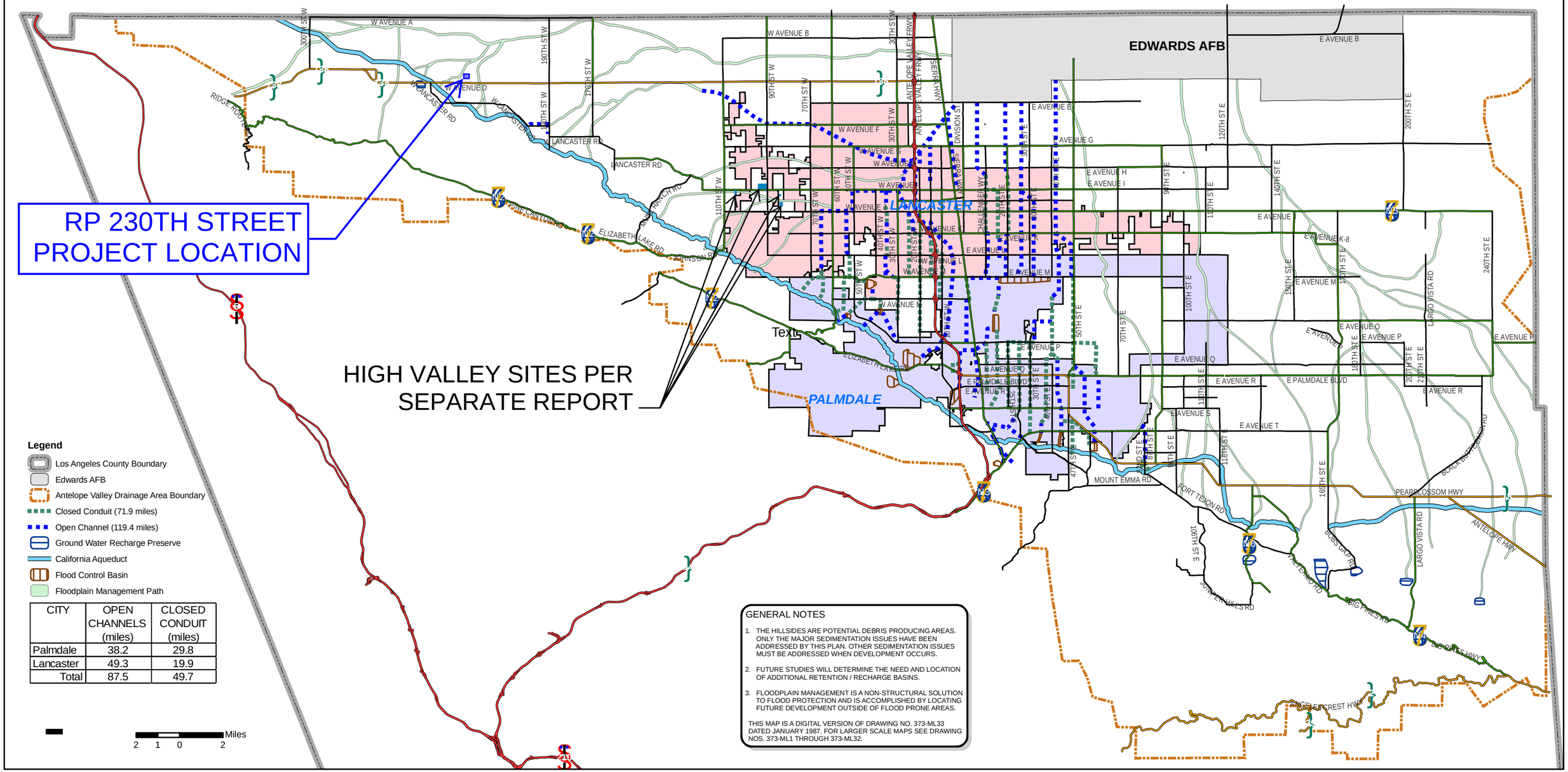
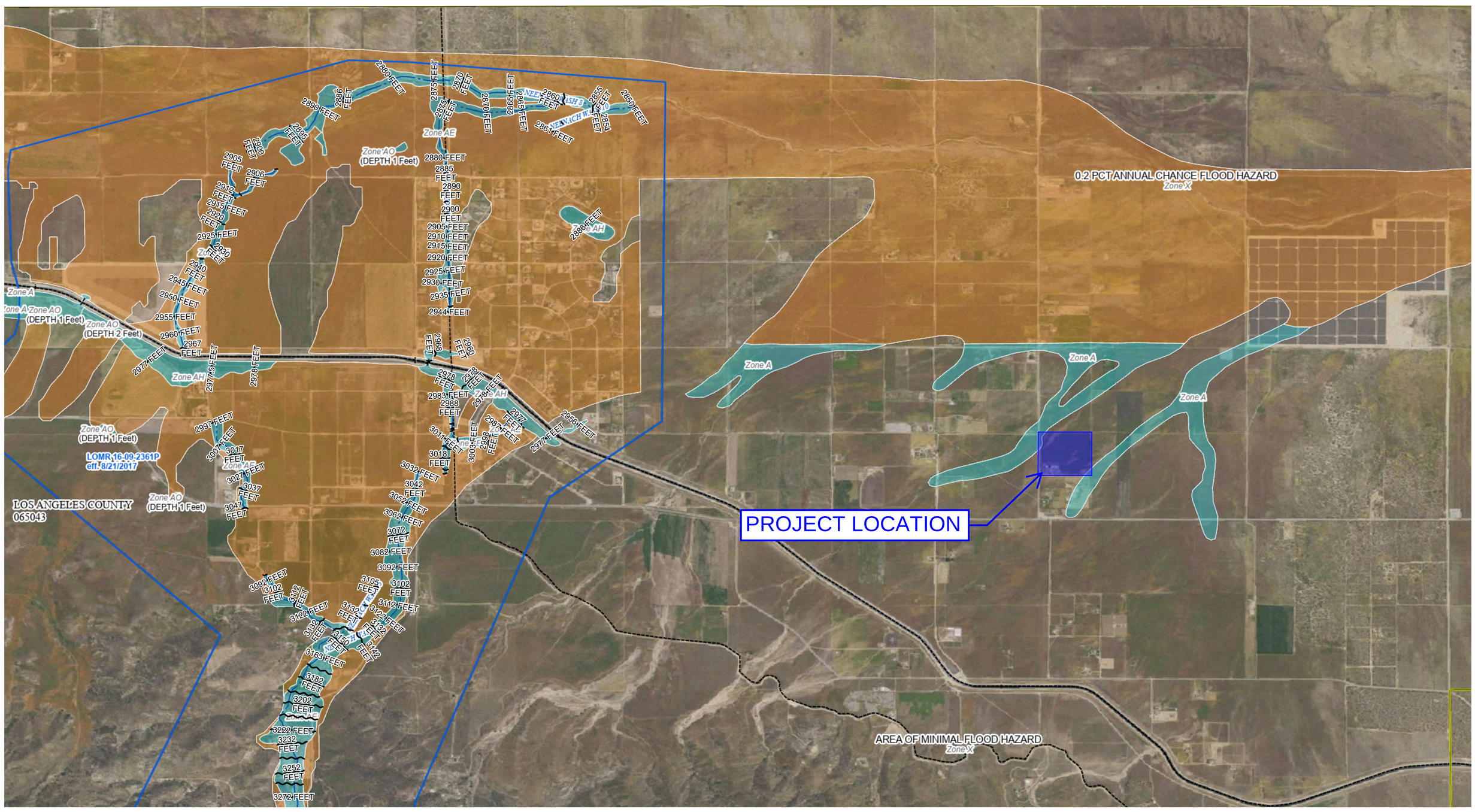

RP 230TH STREET
PROJECT LOCATION
HIGH VALLEY SITES PER
SEPARATE REPORT
EDWARDS AFB
LANCASTER
PALMDALE
W AVENUE A
W AVENUE B
W AVENUE D
W AVENUE F
W AVENUE G
W AVENUE H
W AVENUE I
W AVENUE J
W AVENUE K
W AVENUE L
W AVENUE M
W AVENUE N
E AVENUE B
E AVENUE G
E AVENUE H
E AVENUE I
E AVENUE J
E AVENUE K
E AVENUE K-8
E AVENUE L
E AVENUE M
E AVENUE N
E AVENUE O
E AVENUE P
E AVENUE Q
E AVENUE R
E AVENUE S
E AVENUE T
E PALMDALE BLVD
LANCASTER RD
ELIZABETH LAKE RD
MOUNT EMMA RD
FORT TEJON RD
PEARBLOSSOM HWY
ANTELOPE HWY
LOS ANGELES HWY
ANGELES FOREST HWY
SIERRA HWY
ANTELOPE VALLEY FRWY
LARGO VISTA RD
BLACK BUTTE DR
RIDGE ROUTE RD
PINE CANYON RD
SAN FRANCISQUITO CANYON RD
WILLIAMSON RD
BIG PINES HWY
PINE ENHOR RD
DOBLE GATE RD
VINCENT HILLS RD
30TH ST W
90TH ST W
70TH ST W
60TH ST W
50TH ST W
40TH ST W
30TH ST W
20TH ST W
10TH ST W
110TH ST W
190TH ST W
170TH ST W
150TH ST W
130TH ST W
120TH ST E
140TH ST E
160TH ST E
180TH ST E
200TH ST E
220TH ST E
240TH ST E
260TH ST E
280TH ST E
300TH ST E
320TH ST E
340TH ST E
360TH ST E

FIGURE 2



118°29'58.33"W 34°42'51.7"N

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **7/11/2024 2:35 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: NAVD88
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map, please see the Flood Insurance Study (FIS) Report for your community at https://msc.fema.gov

N

1 inch = 2,000 feet 1:24,000

0 1,000 2,000 4,000 6,000 8,000 Feet

0 210 420 840 1,260 1,680 Meters



NATIONAL FLOOD INSURANCE PROGRAM

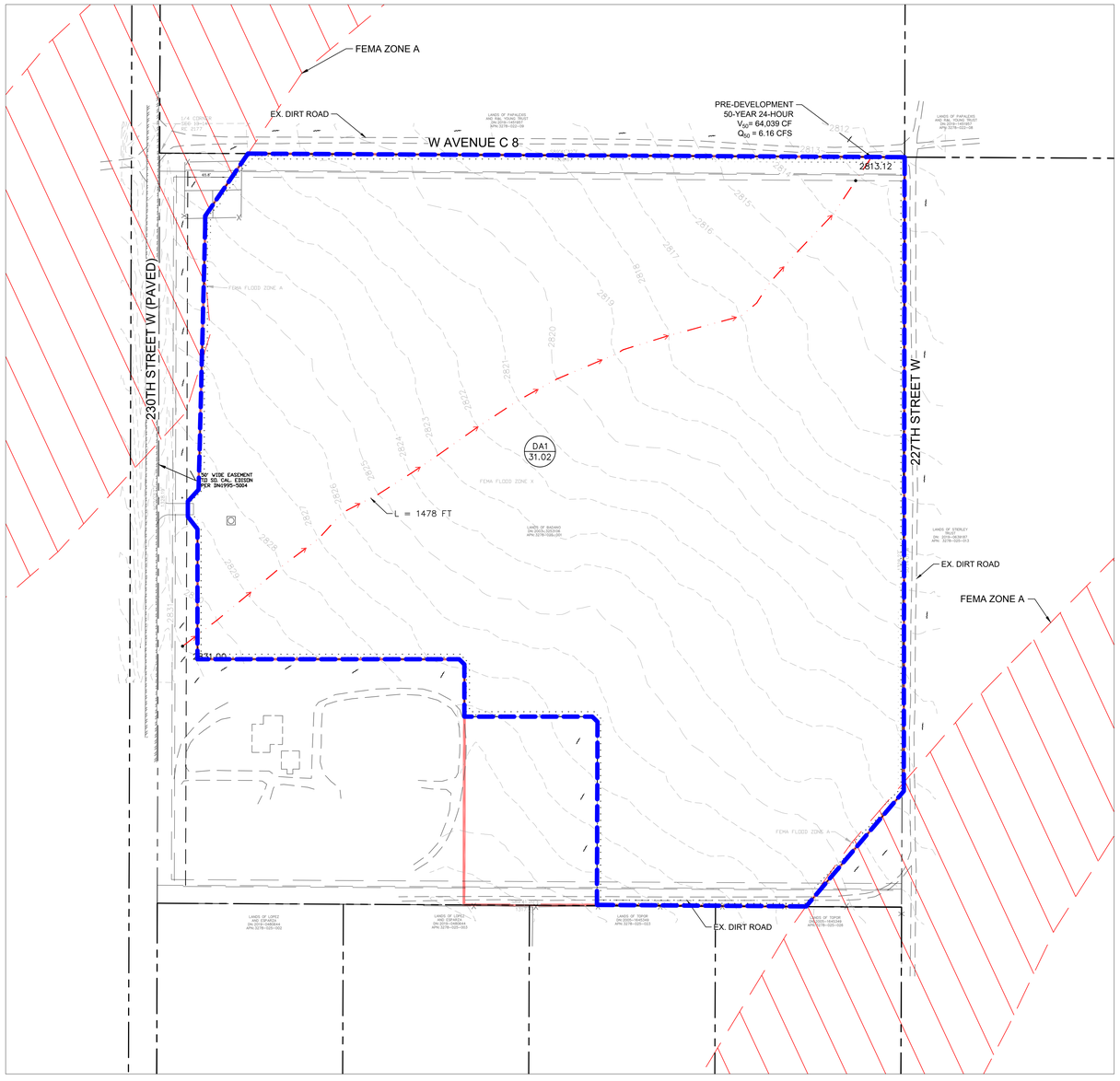
FLOOD INSURANCE RATE MAP

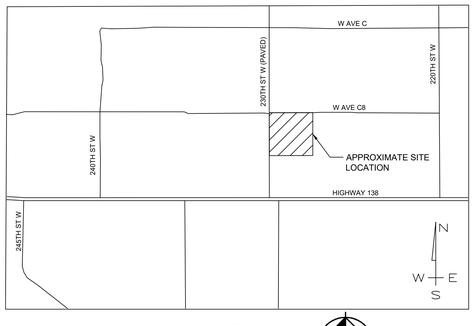
PANEL **100** OF **2204**

Panel Contains:

COMMUNITY	NUMBER	PANEL
LOS ANGELES COUNTY	065043	0100
KERN COUNTY	060075	0100

MAP NUMBER
06037C0100F
EFFECTIVE DATE
September 26, 2





VICINITY MAP
NTS

NORTH

LEGEND

- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMITS
- PARCEL LINE
- EASEMENT LINE
- ROAD CENTERLINE
- (2700) EXISTING GRADE CONTOUR
- DA1 / X.XX ONSITE DRAINAGE AREA WITH APPROXIMATE ACREAGE
- ONSITE DRAINAGE AREA LIMIT
- ONSITE DRAINAGE AREA FLOW PATH

NOTES

PROJECT SIZE: 31 AC

FLOOD ZONE: BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, PANEL NO. 06043010OF, DATED SEPTEMBER 26, 2008. THIS PROPERTY IS NOT LOCATED IN AN AREA WHERE FLOOD HAZARDS EXIST AS DETERMINED BY FEMA NOR IN A COUNTY ADOPTED FLOODWAY.

HYDROLOGIC CALCULATION INPUTS

INPUT PARAMETER	VALUE
PARAMETER APPLICATION	ONSITE BASIN SIZING
DEVELOPMENT CONDITIONS	EXISTING
STORM FREQUENCY	2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR, 50-YEAR
RAINFALL DEPTH (50-YEAR, 24-HOUR)	5.2 INCHES
85TH PERCENTILE, 24-HOUR	0.75 INCHES
SOIL TYPE	134
FIRE FACTOR	0.34
PERCENT IMPERVIOUS	1%
HYDROMOD SIZING CRITERIA	2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR 50-YEAR
DPA ZONE	11
BURN FACTOR[1]	N/A
BULKING FACTOR[1]	N/A

NOTES: N/A

1. PROJECT SITE IS NOT LOCATED IN THE COUNTY OF LOS ANGELES CANYONS OR MOUNTAINOUS AREAS WHICH ARE SUBJECT TO BURNING AND BULKING REQUIREMENTS.

TABLE 2: ONSITE FLOW AND VOLUME FOR 2-, 5-, 10-, 25-, AND 50-YR 24-HOUR STORM EVENTS

ONSITE DA ID	AREA (AC)	FLOW PATH LENGTH (LF)	START ELEVATION (FT)	END ELEVATION (FT)	FLOW PATH SLOPE (FT/FT)	2-YEAR, 24-HOUR		5-YEAR, 24-HOUR		10-YEAR, 24-HOUR		25-YEAR, 24-HOUR		50-YEAR, 24-HOUR	
						FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)
DA-1	31.02	1478	2831	2813.12	0.012	1.73	24271	2.61	36626	3.20	44779.00	3.93	55064	6.16	64039
SUBTOTAL						1.73	24271	2.61	36626	3.20	44779	3.93	55064	6.16	64039

* OFFSITE FLOWS SHOWN WERE DEVELOPED USING THE ARMY CORP OF ENGINEERS HEC-RAS (V5.0.7) MAPPER 2D FEATURE. THE PROFILE FEATURE WITHIN RAS-MAPPER WAS UTILIZED TO FIND MAX OFFSITE FLOWS PASSING THROUGH EACH ONSITE DRAINAGE AREA. PLEASE SEE REPORT NARRATIVE FOR DETAILS.

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200
1"=100' WHEN PLOTTED ON 30"x42"

REVISIONS

No.	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER YOUNG
No. 24637
CIVIL
EXPIRES: 09/30/2025

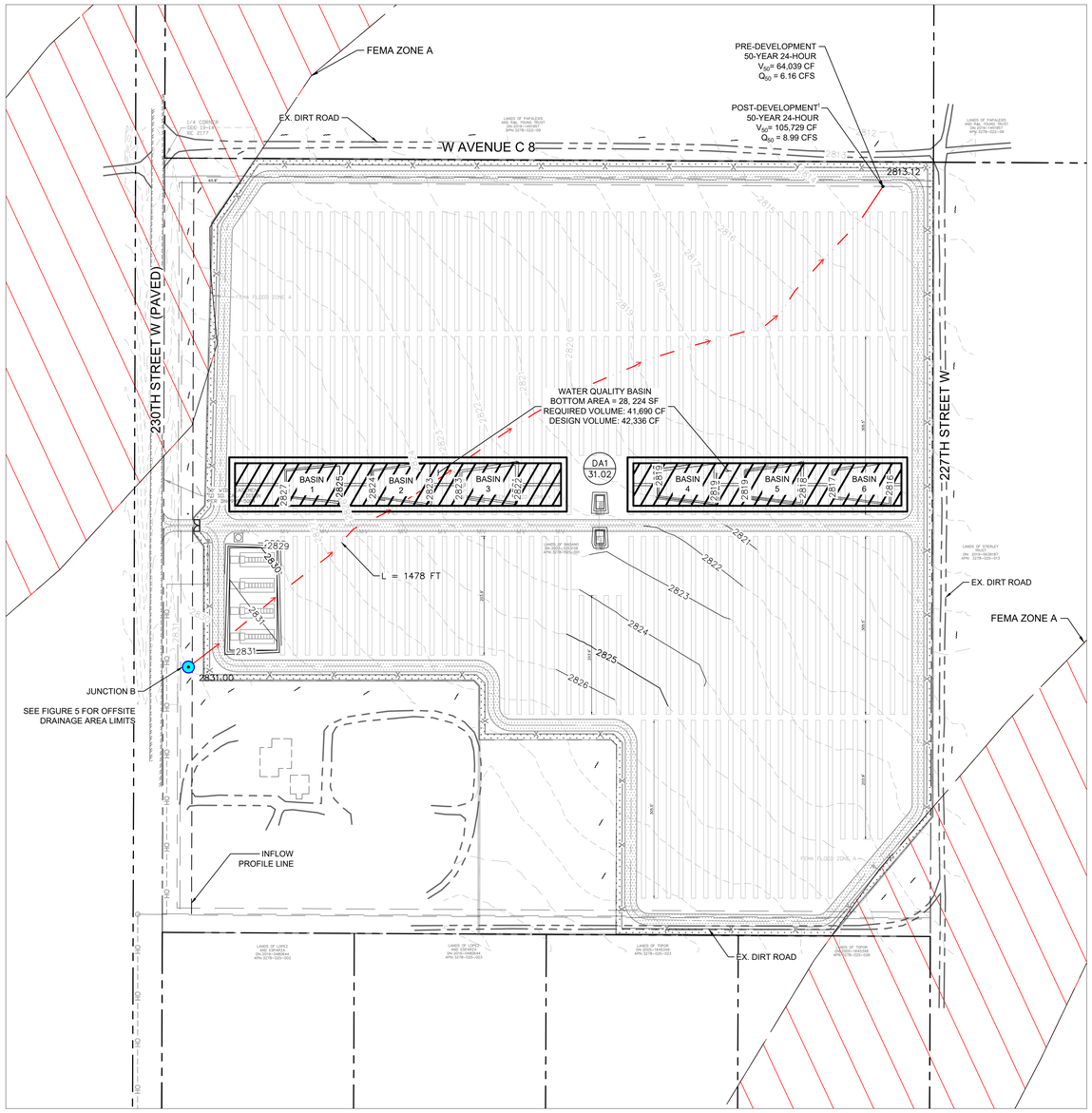
KHA PROJECT 099950006
DATE 10/23/2024
SCALE AS SHOWN
DESIGNED BY BY
DRAWN BY BY
CHECKED BY CY

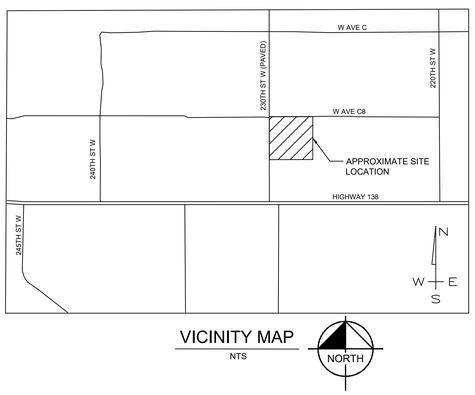
230TH STREET SOLAR
PREPARED FOR
RPCA
LOS ANGELES COUNTY CALIFORNIA

EXISTING CONDITIONS ONSITE HYDROLOGY MAP
CUP CASE NO. PRJ2023-002405

SHEET NUMBER
FIG-7

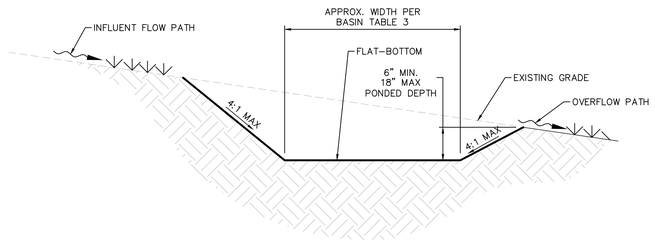
Plotted By: Young, Chris Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN October 24, 2024 01:44:33pm K:\LDT_ENERGY\RPCA Ground-mount\099997002 RCPA 230th St Exhibit E\08 H&H\Dwg\Exhibits\230th Existing Hydrology.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.





VICINITY MAP
NTS

NORTH



NOTES:
1. THIS DETAIL REPRESENTS GENERAL INTENT; BASINS TO BE FURTHER DETAILED DURING FINAL DESIGN.
2. SPOILS FROM BASIN EXCAVATION ARE TO REMAIN ON-SITE, SHOULD BE PLACED ON RIDGELINES WHERE POSSIBLE.
3. BASINS TO BE CONSTRUCTED IN ELONGATED RECTANGULAR LAYOUT AS SHOWN PER PLAN.
4. PROPOSED ONSITE ACCESS ROADS SHALL REMAIN AT EXISTING GRADE, ELEVATED ABOVE BASIN INUNDATION ELEVATIONS IN ORDER TO DISCOURAGE INUNDATION OF TRAVELED WAY.
5. EARTHWORK REQUIRED FOR BASIN GRADING AND DAYLIGHT SLOPES MAY EXCEED THE MINIMUM REQUIRED STORAGE OR RETENTION VOLUME AND IS SUBJECT TO CHANGE DURING THE FINAL DESIGN
6. GENERAL MAINTENANCE IS REQUIRED FOR INFILTRATION BASINS TO FUNCTION PROPERLY AND MAY INCLUDE INSPECTIONS, TRASH REMOVAL, VEGETATION MAINTENANCE, ETC.

TYPICAL INFILTRATION RETENTION BASIN
N.T.S.

LEGEND

- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMITS
- PARCEL LINE
- EASEMENT LINE
- ROAD CENTERLINE
- EXISTING GRADE CONTOUR
- PROPOSED GRADE CONTOUR
- MODULE SAT ROW
- PROPOSED CHAIN LINK FENCE
- PROPOSED GEN TIE LINE
- 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- 20' SITE ACCESS GATE
- ONSITE DRAINAGE AREA WITH APPROXIMATE ACREAGE (DA1 / X.XX)
- ONSITE DRAINAGE AREA LIMIT
- ONSITE DRAINAGE AREA FLOW PATH
- FEMA ZONE A
- RETENTION BASIN

TABLE 1: HYDROLOGIC CALCULATION INPUTS

INPUT PARAMETER	VALUE
PARAMETER APPLICATION	ONSITE BASIN SIZING
DEVELOPMENT CONDITIONS	PROPOSED
STORM FREQUENCY	0.75-INCH, 2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR, 50-YEAR
RAINFALL DEPTH (50-YEAR, 24-HOUR)	5.2 INCHES
85TH PERCENTILE, 24-HOUR	0.75 INCHES
SOIL TYPE	134
FIRE FACTOR	0.34
PERCENT IMPERVIOUS	10%
HYDROMOD SIZING CRITERIA	2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR 50-YEAR
DPA ZONE	11
BURN FACTOR[1]	N/A
BULKING FACTOR[1]	N/A

NOTES: N/A

1. PROJECT SITE IS NOT LOCATED IN THE COUNTY OF LOS ANGELES CANYONS OR MOUNTAINOUS AREAS WHICH ARE SUBJECT TO BURNING AND BULKING REQUIREMENTS.

APPROXIMATE BASIN CAPACITY

BASIN	ELEVATION	DEPTH (FT)	AREA (SF)	VOLUME (CF)	CUMULATIVE VOLUME (CF)	CUMULATIVE VOLUME (ACFT)
1	2824.40	1.50	4328	6492		
2	2822.30	1.43	4792	6853	13345	0.30
3	2821.00	1.38	4792	6612	19957	0.45
4	2818.70	1.50	4792	7188	27145	0.62
5	2816.82	1.50	5143	7715	34860	0.80
6	2815.30	1.50	4984	7476	42336	0.97
				TOTAL VOLUME	42336	0.97

TABLE 2A: PRE-DEVELOPED ONSITE FLOW AND VOLUME FOR 2-, 5-, 10-, 25-, AND 50-YR 24-HOUR STORM

ONSITE DA ID	AREA (AC)	FLOW PATH LENGTH (LF)	START ELEVATION (FT)	END ELEVATION (FT)	FLOW PATH SLOPE (FT/FT)	2-YEAR, 24-HOUR		5-YEAR, 24-HOUR		10-YEAR, 24-HOUR		25-YEAR, 24-HOUR		50-YEAR, 24-HOUR	
						FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)
DA-1	31.02	1478	2831	2813.12	0.012	1.73	24271	2.61	36626	3.20	44779.00	3.93	55064	6.16	64039
SUBTOTAL						1.73	24271	2.61	36626	3.20	44779	3.93	55064	6.16	64039

TABLE 2B: POST-DEVELOPED ONSITE FLOW AND VOLUME FOR 2-, 5-, 10-, 25-, AND 50-YR 24-HOUR STORM

ONSITE DA ID	AREA (AC)	FLOW PATH LENGTH (LF)	START ELEVATION (FT)	END ELEVATION (FT)	FLOW PATH SLOPE (FT/FT)	2-YEAR, 24-HOUR		5-YEAR, 24-HOUR		10-YEAR, 24-HOUR		25-YEAR, 24-HOUR		50-YEAR, 24-HOUR	
						FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)
DA-1	31.02	1478	2831	2813.12	0.012	2.89	40451	4.34	61043	5.33	74632	6.55	91774	8.99	105729
SUBTOTAL						2.89	40451	4.34	61043	5.33	74632	6.55	91774	8.99	105729

TABLE 3: SWQDV AND RETENTION REQUIREMENTS

Basin	Tributary DA	Project Design Storm (in)	SWQDv (cf)	50-yr Event Mitigation Volume (cf)	Existing Retention Volume (cf)	Required Retention Volume (cf)	Design Length (ft)	Design Width (ft)	Design Area (sf)	Design Depth (ft)	Design Volume (cf)
1	DA-1	0.75	15082	41690	0	41690	1203	23	28224	1.5	42336
					Total Required Retention Volume	41690			Total Designed Volume		42336

TABLE 4: SITE SPECIFIC DESIGN INFILTRATION RATES

BASIN	DESIGN DEPTH (FT)	INFILTRATION RATE (IN/HR)	FACTOR OF SAFETY	DESIGN INFILTRATION RATE (IN/HR)	DRAWDOWN TIME (HR)	COUNTY REQUIRED DRAWDOWN TIME (HR)	REQUIRED DRAWDOWN TIME MET?
1	1.5	1	1.5	0.66	27.3	96	YES

NOTES

PROJECT SIZE: 31 AC.

FLOOD ZONE: BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, PANEL NO. 06504301 00F, DATED SEPTEMBER 26, 2008. THIS PROPERTY IS NOT LOCATED IN AN AREA WHERE FLOOD HAZARDS EXIST AS DETERMINED BY FEMA.

1. BY REQUEST OF THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS, POST-DEVELOPMENT FLOW RATE AND VOLUME CALCULATIONS CONSERVATIVELY ASSUME 10% IMPERVIOUS AREA ACROSS THE SITE. INCREASES IN THESE VALUES ARE MITIGATED BY ONSITE RETENTION INFILTRATION BASINS LOCATED NEAR THE CENTER OF THE SITE AS SHOWN HEREON. THEREFORE THE PROPOSED FACILITIES WILL NOT IMPACT OFFSITE FLOWS AND DRAINAGE PATTERNS. POST-DEVELOPMENT CONDITION RUNOFF CHARACTERISTICS ARE EXPECTED TO MATCH OR BE LESS THAN EXISTING CONDITIONS.
2. ONSITE RETENTION BASINS ARE DESIGNED TO PROVIDE LOW-IMPACT-DEVELOPMENT (LID) TREATMENT FOR WATER QUALITY AND MITIGATE FOR HYDROMODIFICATION BASED ON ASSUMED INCREASES IN SITE RUNOFF AS DISCUSSED IN THE "ONSITE AND OFFSITE DRAINAGE REPORT FOR RP 230TH STREET" PREPARED BY KIMLEY-HORN AND ASSOCIATES DATED OCTOBER 2023. REFER TO REPORT FOR MORE INFORMATION.
3. REFER TO GEOTECHNICAL INVESTIGATION INFILTRATION REPORT FOR PROPOSED STORM WATER INFILTRATION BASINS, DATED OCTOBER 2023 AND ANY SUBSEQUENT REVISIONS OR ADDENDA FOR MORE INFORMATION ON GEOTECHNICAL EXPLORATION AND TESTING. DESIGN INFILTRATION RATE WAS CONFIRMED TO EXCEED THE MINIMUM RATE OF 0.3 IN/HR SET BY GS.200.2 AND THE LID MANUAL.
4. REFER TO THE CUP SITE AND LANDSCAPE PLANS PRODUCED BY KIMLEY-HORN AND ASSOCIATES DATED OCTOBER 2023 OR ANY REVISIONS THEREAFTER FOR ADDITIONAL INFORMATION AND DETAILS ON PROPOSED SITE IMPROVEMENTS.
5. ACCORDING TO THE LOS ANGELES COUNTY COMPREHENSIVE FLOODPLAIN MANAGEMENT PLAN APPENDIX G, LOS ANGELES COUNTY FLOODWAY MAPS, AND FEMA, THE PROJECT SITE IS NOT LOCATED IN COUNTY OR FEDERAL ADOPTED FLOODWAY.
6. FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q 50) INCREASED BY A MAXIMUM OF 24%, AND THE VOLUMES (V 50) INCREASED BY A MAXIMUM OF 65% SIMILAR INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE SMALL INCREASE IN PEAK FLOW RATES (<24%). THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. THE POST-DEVELOPMENT DOES NOT INCLUDE THE MITIGATION EFFECTS OF THE BASINS. SEE IMPACT ANALYSIS CALCULATIONS.
7. DRAINAGE IMPROVEMENTS NOT TO BE MAINTAINED BY LACFCD.
8. FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, NEGLIGIBLE INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE NEGLIGIBLE INCREASE IN PEAK FLOW RATES. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITIONS. THESE POST-DEVELOPMENT CALCULATIONS DO NOT INCLUDE THE MITIGATION EFFECTS ON THE BASIN. (TYP.)
9. A GRADING AND DRAINAGE PLAN WILL BE SUBMITTED TO PUBLIC WORKS FOR REVIEW AND APPROVAL.

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200
1"=100' WHEN PLOTTED ON 30"x42"

No.	REVISIONS	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

© 2024 KIMLEY-HORN AND ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
NICHOLAS M. MONTEMAYOR
No. 34
CIVIL
STATE OF CALIFORNIA

EXPIRES: 09/30/2025

KHA PROJECT 099950006
DATE 10/23/2024
SCALE AS SHOWN
DESIGNED BY BY
DRAWN BY BY
CHECKED BY CY

230TH STREET SOLAR

PREPARED FOR
RPCA

CALIFORNIA
LOS ANGELES COUNTY

PROPOSED CONDITIONS ONSITE HYDROLOGY MAP
CUP CASE NO. PRJ2023-002405

SHEET NUMBER
FIG-4

Plotted By:Young, Chris Sheet Set:Kha Layout:CONCEPTUAL SITE PLAN October 24, 2024 01:50:41pm K:\LDT_ENERGY\RPCA Ground-mount\099997002 RCPA 230th St Exhibit E\08_Hdrl\Dwg\Exhibits\230th Proposed Hydrology.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. alone be without liability to Kimley-Horn and Associates, Inc.

Legend
- Drainage Areas
- FEMA Zone A
- 10 ft Contours
- Longest Flow Path
- Project Extents

DESIGN:	RR
DRAWN:	BR
REVIEW:	VAT

Kimley»Horn
660 S FIGUEROA ST, SUITE 2050
LOS ANGELES, CA 90017
PHONE: 213-261-4100

Ü
1 inch = 1,000 feet

230TH STREET SOLAR
LOS ANGELES COUNTY, CA

DRAINAGE AREA MAP

DATE
OCTOBER 2023

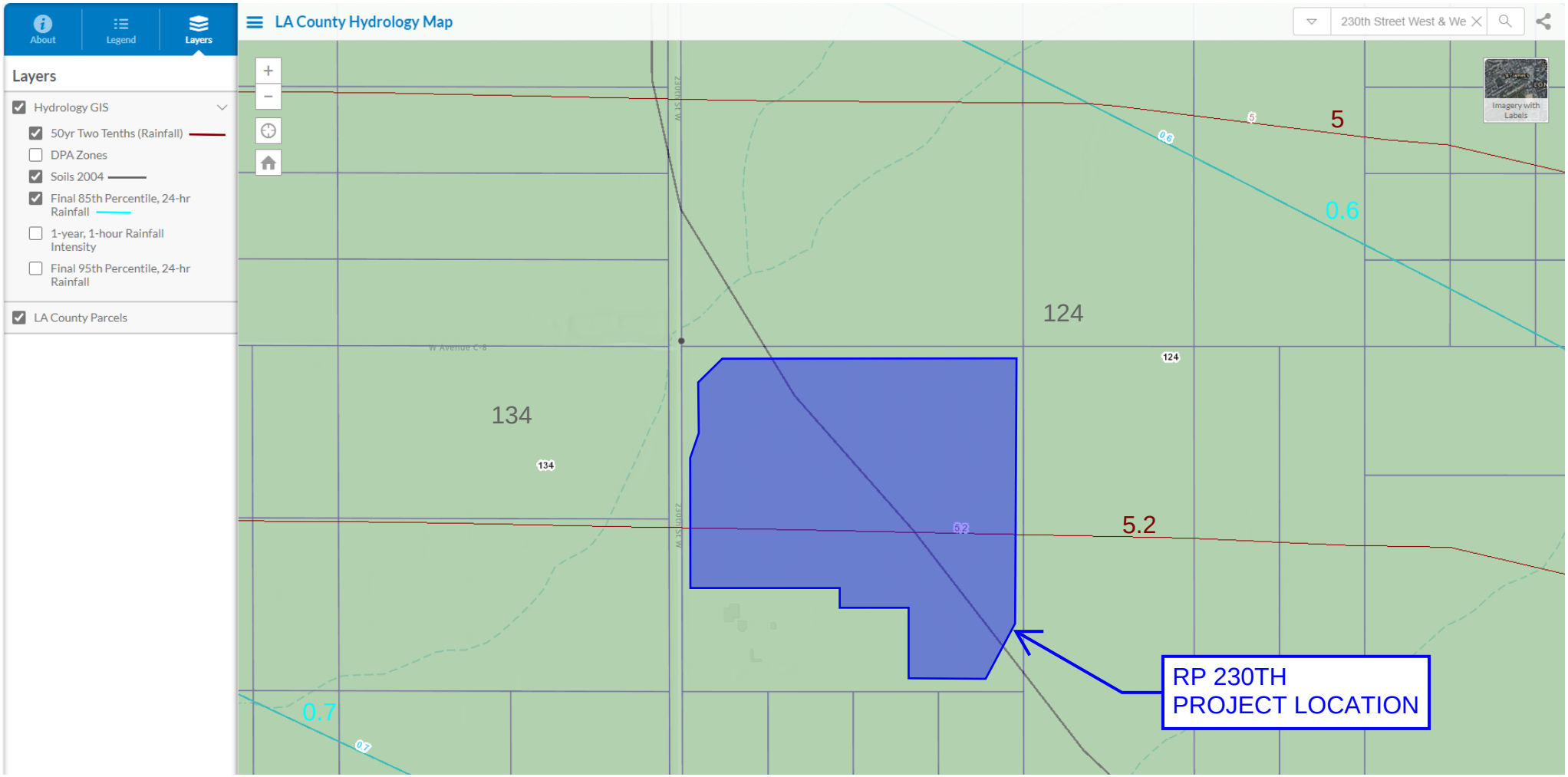
PROJECT NO.
099997002

SHEET NUMBER
FIG-5

Document Path: K:\LDT_Energy\RPCA Ground-mount\099997002_RCPA_230th St Exhibit E\09_H&HGIS\DR_230_.aprx

Appendix B – Onsite Hydrologic Calculations

Rainfall Depths, Soil Type



Based on LA County data the project offsite drainage areas have the following parameters:

50-yr, 24-hr rainfall depth: 5.2 inches (Incorporated in HEC-HMS as SCS storm)
85th percentile, 24-hr rainfall depth: 0.7 inch (0.75-inch storm > 85th percentile)
Soil Type: 134 and 124

On-Site Hydromod Volume (WQDv) (Post-Development; 85th percentile)						
Subarea	Area	Frequency	IMP	Isoheytal (in)	Peak Q (CFS)	Volume (CF)
DA-1	31.02	0.75 inch storm	0.10	0.75	0.58	15,082.00
					Total	15,082

On-Site Hydromod Volume

Subarea	Area (ac)	Freq.	Isoheytal (in)	%IMP		Peak Q (CFS)		Volume (CF)		
				Existing	Proposed	Existing	Proposed	Existing	Proposed	Delta
DA-1	31.02	2-yr	5.20	0.01	0.10	1.73	2.89	24,271	40,451	16,180
									Subtotal	16,180
DA-1	31.02	5-yr	5.20	0.01	0.10	2.62	4.36	36,626	61,043	24,417
									Subtotal	24,417
DA-1	31.02	10-yr	5.20	0.01	0.10	3.20	5.33	44,779	74,632	29,853
									Subtotal	29,853
DA-1	31.02	25-yr	5.20	0.01	0.10	3.93	6.55	55,064	91,774	36,710
									Subtotal	36,710
DA-1	31.02	50-yr	5.20	0.01	0.10	6.16	8.99	64,039	105,729	41,690
									Subtotal	41,690

Peak Flow Hydrologic Analysis

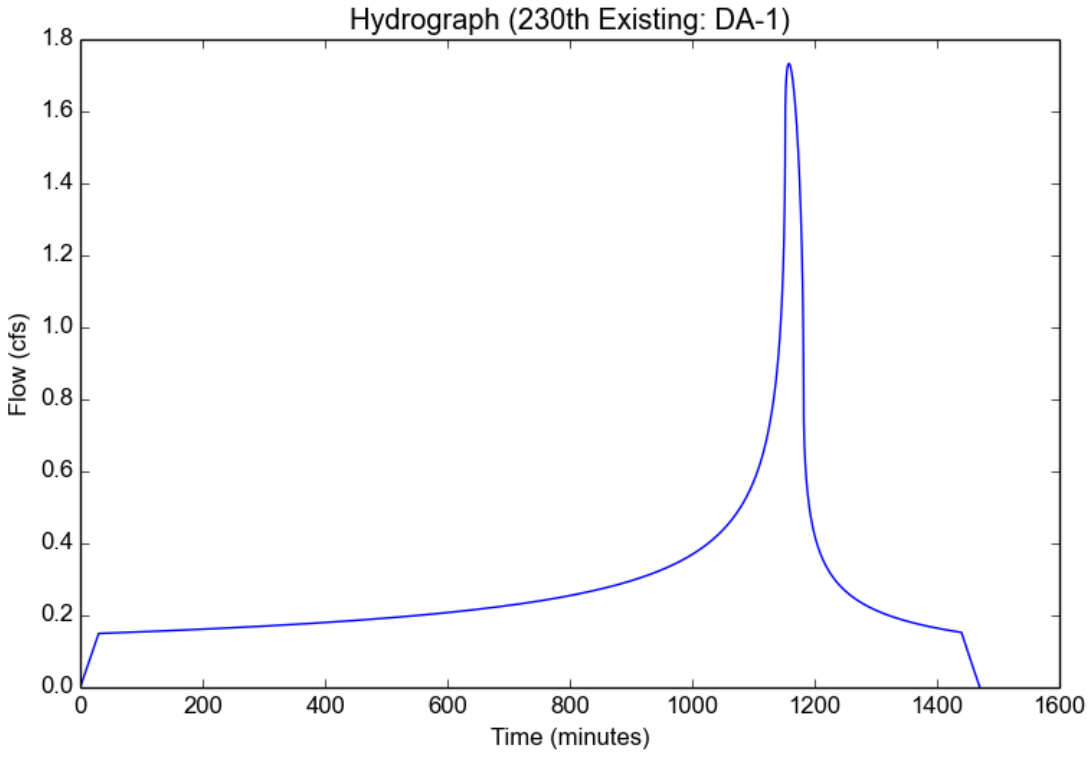
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	2-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (2-yr) Rainfall Depth (in)	2.0124
Peak Intensity (in/hr)	0.5172
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	1.7328
Burned Peak Flow Rate (cfs)	3.0754
24-Hr Clear Runoff Volume (ac-ft)	0.5572
24-Hr Clear Runoff Volume (cu-ft)	24270.9818



Peak Flow Hydrologic Analysis

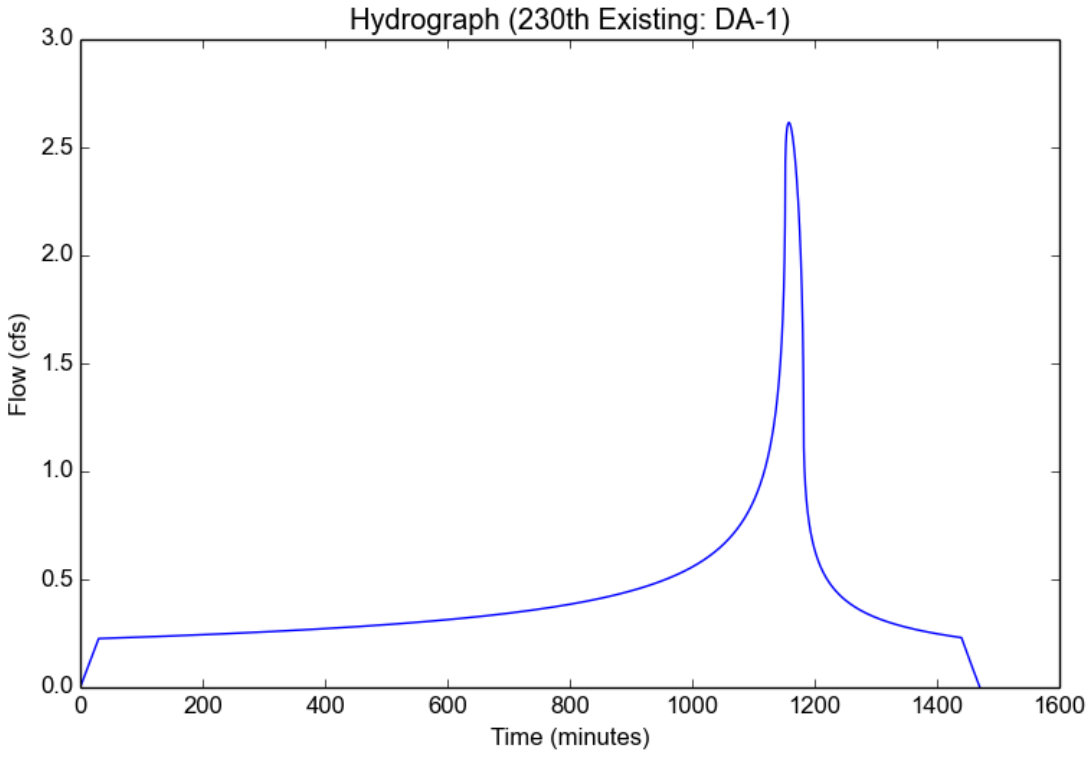
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	5-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (5-yr) Rainfall Depth (in)	3.0368
Peak Intensity (in/hr)	0.7805
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	2.6149
Burned Peak Flow Rate (cfs)	4.8594
24-Hr Clear Runoff Volume (ac-ft)	0.8408
24-Hr Clear Runoff Volume (cu-ft)	36625.9777



Peak Flow Hydrologic Analysis

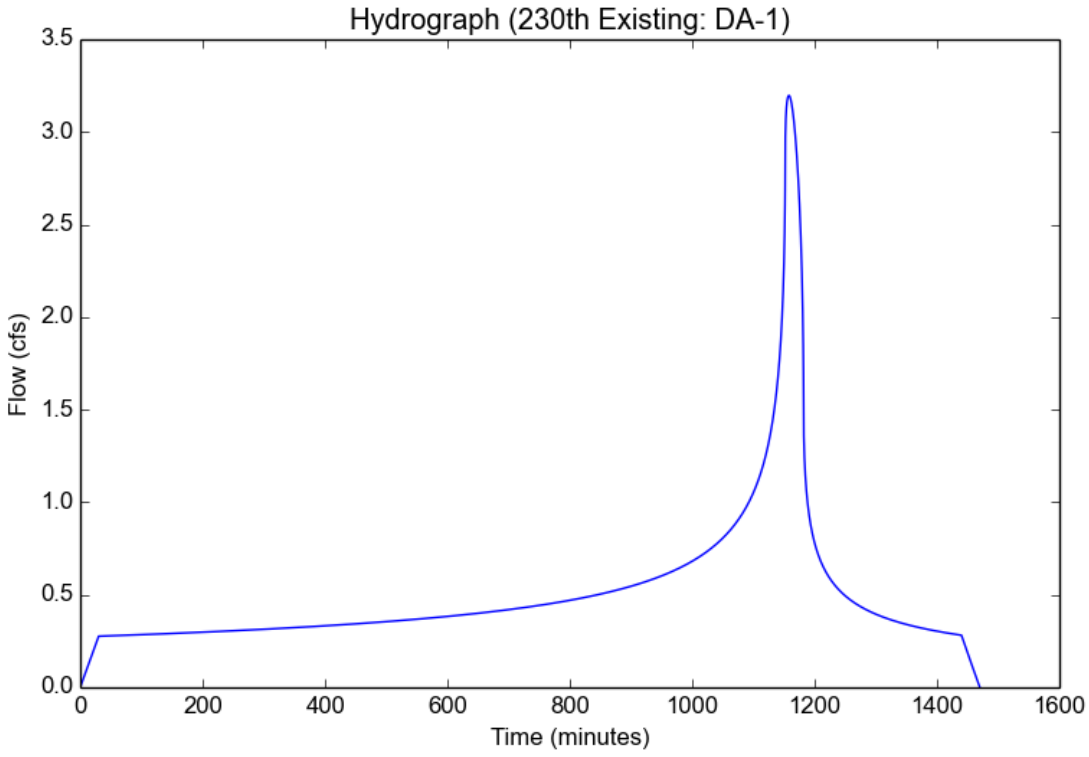
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	10-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7128
Peak Intensity (in/hr)	0.9543
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	3.197
Burned Peak Flow Rate (cfs)	6.0676
24-Hr Clear Runoff Volume (ac-ft)	1.028
24-Hr Clear Runoff Volume (cu-ft)	44779.0207



Peak Flow Hydrologic Analysis

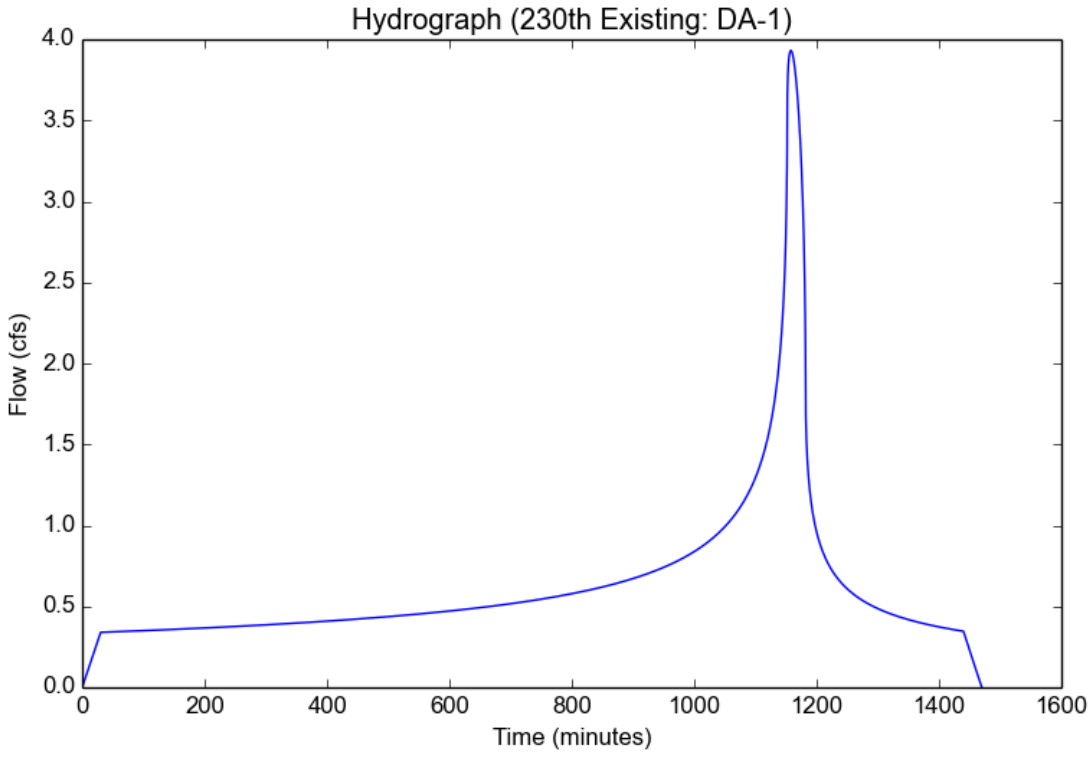
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	25-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5656
Peak Intensity (in/hr)	1.1735
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	3.9313
Burned Peak Flow Rate (cfs)	7.6181
24-Hr Clear Runoff Volume (ac-ft)	1.2641
24-Hr Clear Runoff Volume (cu-ft)	55064.398



Peak Flow Hydrologic Analysis

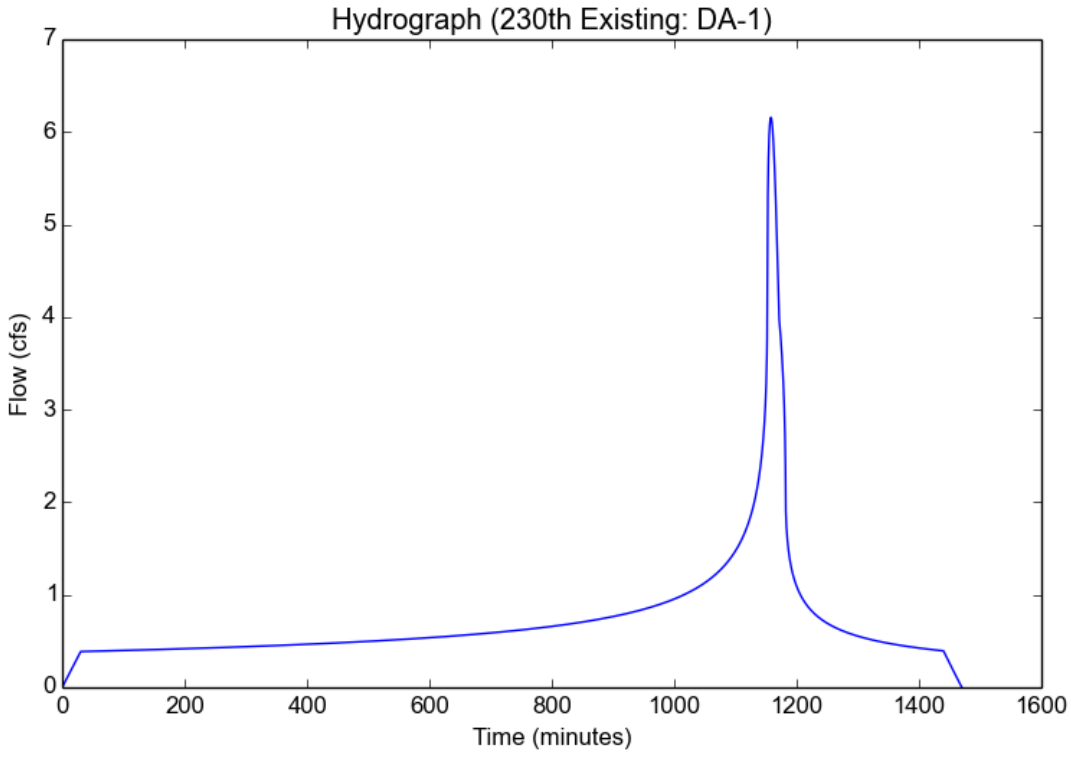
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	50-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.2
Peak Intensity (in/hr)	1.3365
Undeveloped Runoff Coefficient (Cu)	0.1409
Developed Runoff Coefficient (Cd)	0.1485
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	6.157
Burned Peak Flow Rate (cfs)	10.2708
24-Hr Clear Runoff Volume (ac-ft)	1.4701
24-Hr Clear Runoff Volume (cu-ft)	64039.1753



Peak Flow Hydrologic Analysis

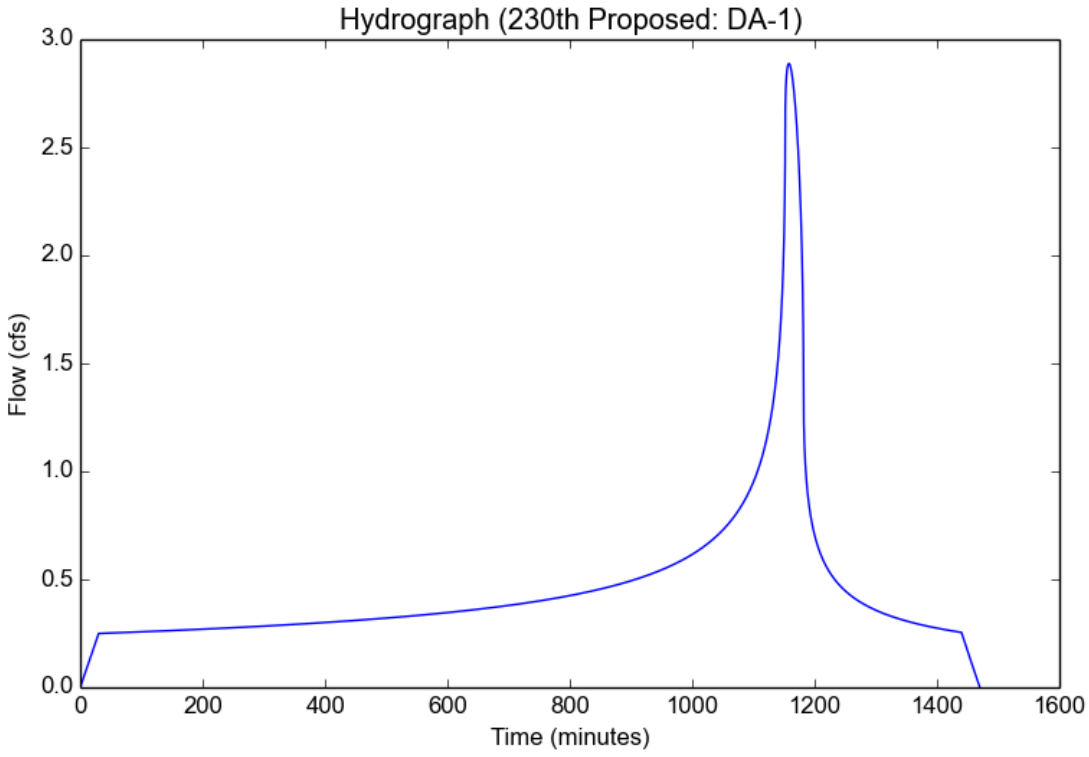
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	2-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (2-yr) Rainfall Depth (in)	2.0124
Peak Intensity (in/hr)	0.5172
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	2.888
Burned Peak Flow Rate (cfs)	4.1222
24-Hr Clear Runoff Volume (ac-ft)	0.9286
24-Hr Clear Runoff Volume (cu-ft)	40451.6363



Peak Flow Hydrologic Analysis

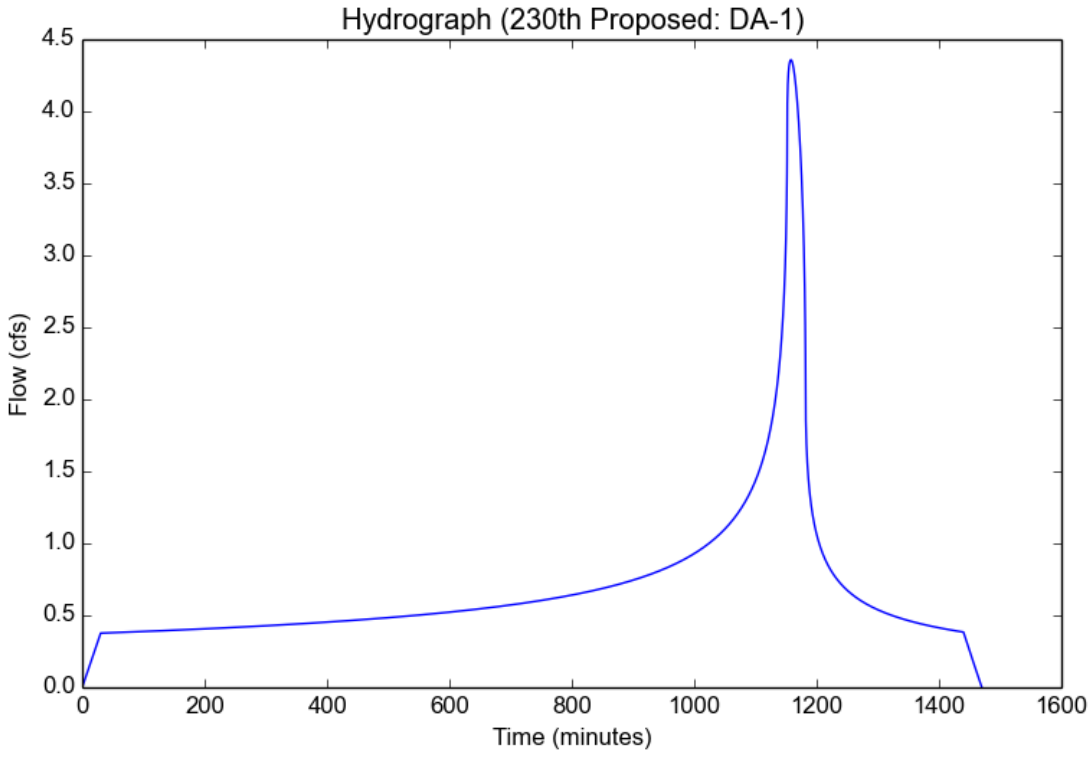
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	5-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (5-yr) Rainfall Depth (in)	3.0368
Peak Intensity (in/hr)	0.7805
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	4.3582
Burned Peak Flow Rate (cfs)	6.4215
24-Hr Clear Runoff Volume (ac-ft)	1.4014
24-Hr Clear Runoff Volume (cu-ft)	61043.2962



Peak Flow Hydrologic Analysis

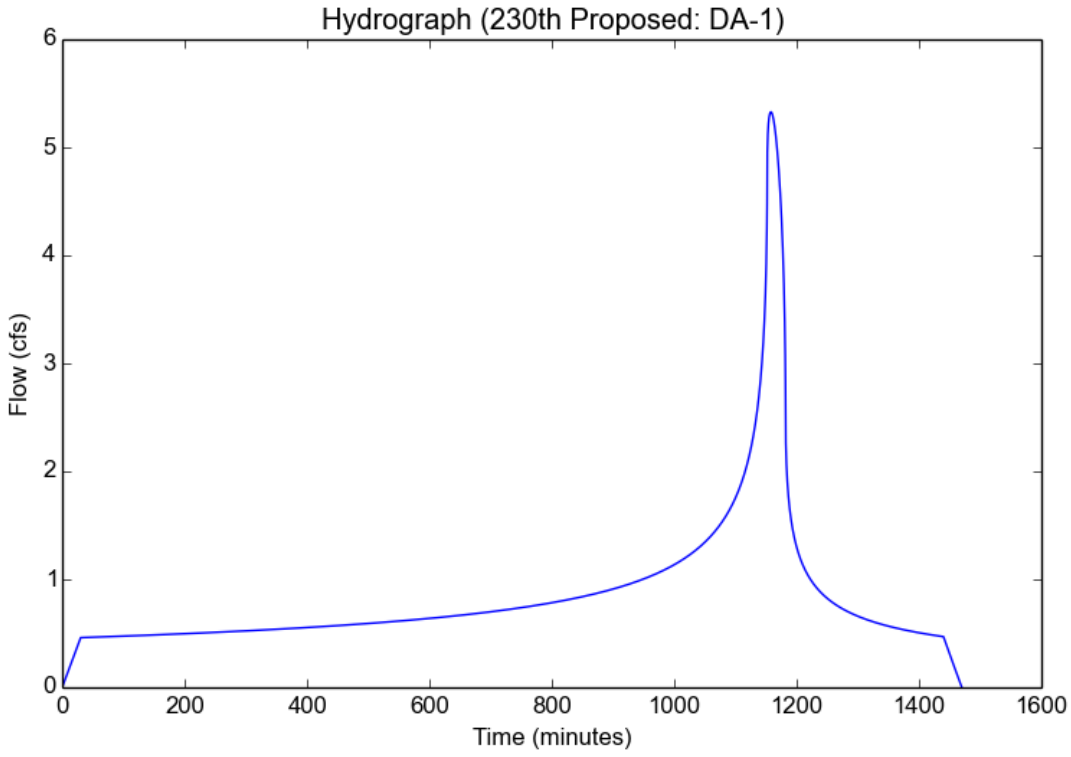
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	10-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7128
Peak Intensity (in/hr)	0.9543
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	5.3283
Burned Peak Flow Rate (cfs)	7.9673
24-Hr Clear Runoff Volume (ac-ft)	1.7133
24-Hr Clear Runoff Volume (cu-ft)	74631.7012



Peak Flow Hydrologic Analysis

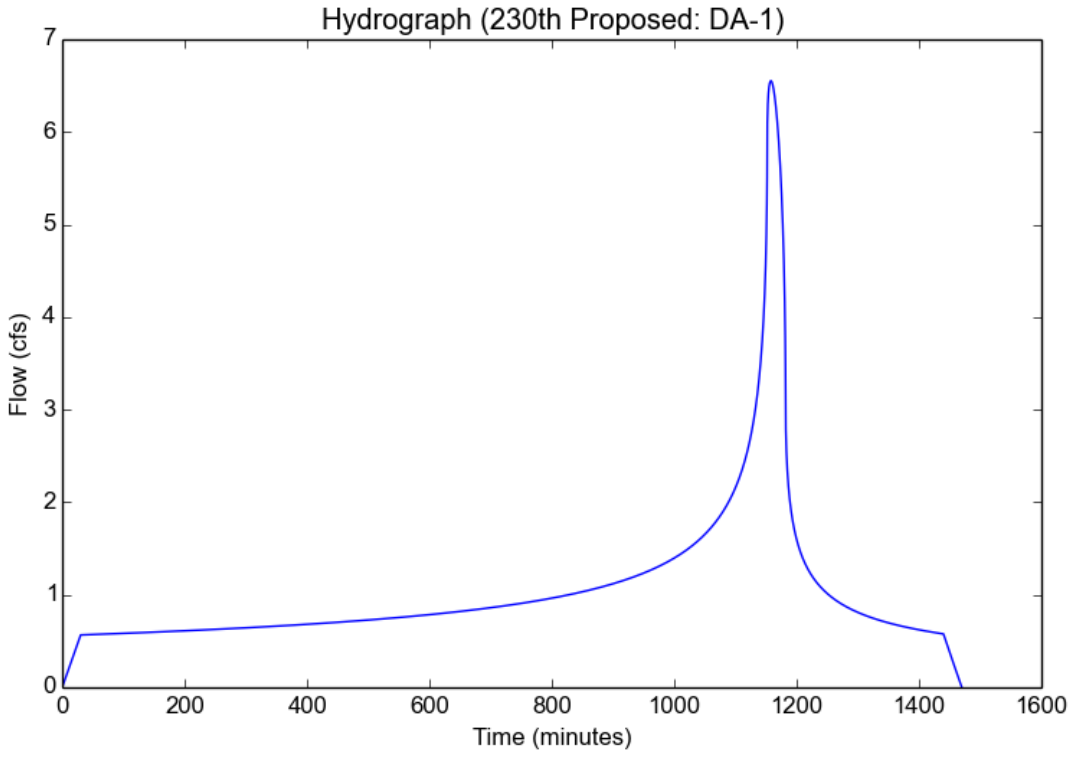
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	25-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5656
Peak Intensity (in/hr)	1.1735
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	6.5522
Burned Peak Flow Rate (cfs)	9.9413
24-Hr Clear Runoff Volume (ac-ft)	2.1068
24-Hr Clear Runoff Volume (cu-ft)	91773.9967



Peak Flow Hydrologic Analysis

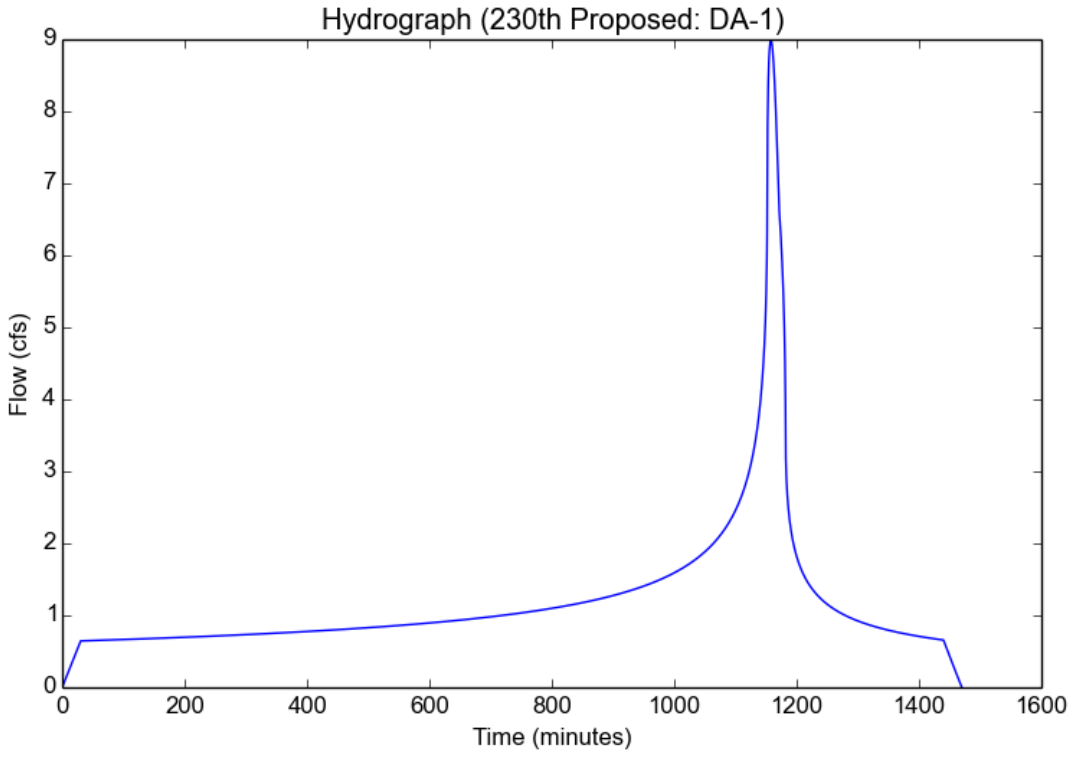
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	50-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.2
Peak Intensity (in/hr)	1.3365
Undeveloped Runoff Coefficient (Cu)	0.1409
Developed Runoff Coefficient (Cd)	0.2168
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	8.9894
Burned Peak Flow Rate (cfs)	12.7731
24-Hr Clear Runoff Volume (ac-ft)	2.4272
24-Hr Clear Runoff Volume (cu-ft)	105729.3376



Peak Flow Hydrologic Analysis

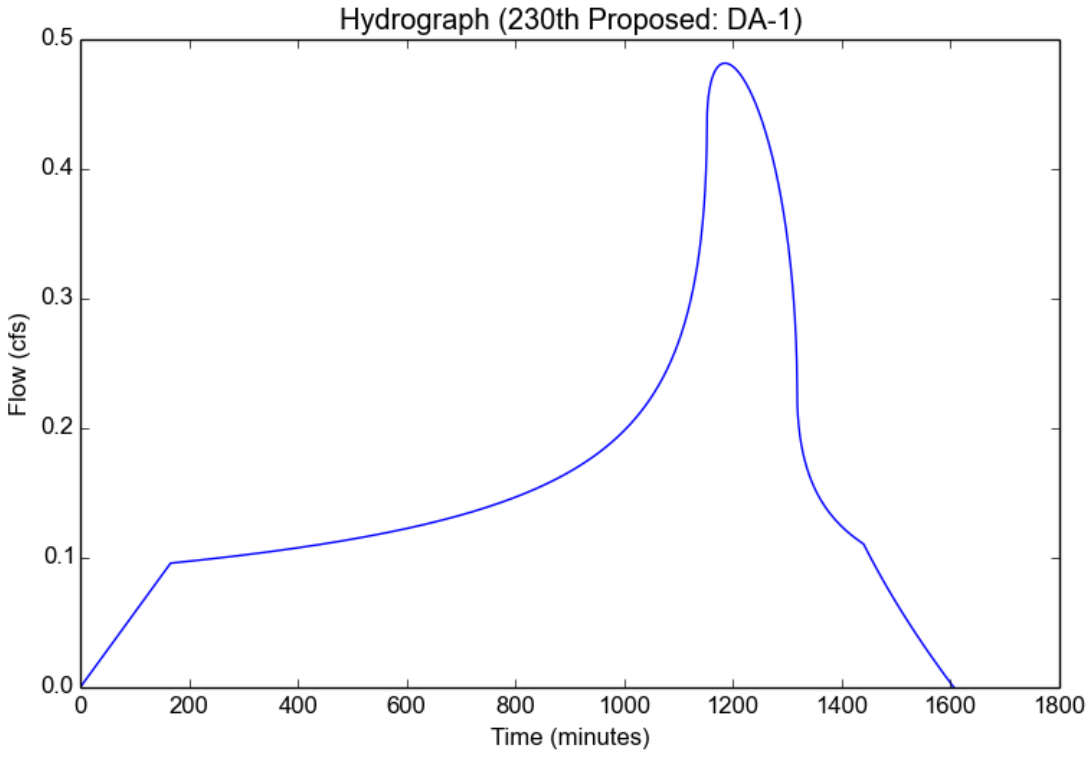
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
0.75-inch Rainfall Depth (in)	0.75
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	0.75 inch storm
Fire Factor	0.34
LID	True

Output Results

Modeled (0.75 inch storm) Rainfall Depth (in)	0.75
Peak Intensity (in/hr)	0.0863
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	166.0
Clear Peak Flow Rate (cfs)	0.4817
Burned Peak Flow Rate (cfs)	0.5792
24-Hr Clear Runoff Volume (ac-ft)	0.3462
24-Hr Clear Runoff Volume (cu-ft)	15081.5352



Appendix J

Noise Technical Memorandum

TECHNICAL MEMORANDUM

To:	RPCA Solar 12, LLC
From:	Olivia Chan and Mayra Garcia, Kimley-Horn and Associates, Inc.
Date:	April 10, 2025
Subject:	230th Street Solar Project – Noise Technical Memorandum

PURPOSE

The purpose of this memorandum is to assess potential impacts due to noise and vibration associated with construction and operation of the 230th Street Solar Project (Project), proposed to be located in unincorporated Los Angeles County, California.

PROJECT LOCATION

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W in Lancaster (see **Figure 1: Regional Vicinity Map**). The Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west (see **Figure 2: Local Vicinity Map**). Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25 miles to the south. Local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W.

PROJECT DESCRIPTION

RPCA Solar 12, LLC (Applicant) proposes to construct and operate a single-axis tracker ground-mounted photovoltaic (PV) community solar and battery energy storage system (BESS) with up to approximately 4.99 megawatts of alternating current (MWac) in capacity. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than 15 feet tall at maximum tilt.

The BESS would store electrical energy produced by the Project during the day and flexibility dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of four battery banks with energy storage capacity located in the southwest corner of the PV array. Each battery bank would be approximately the size of a typical shipping container.

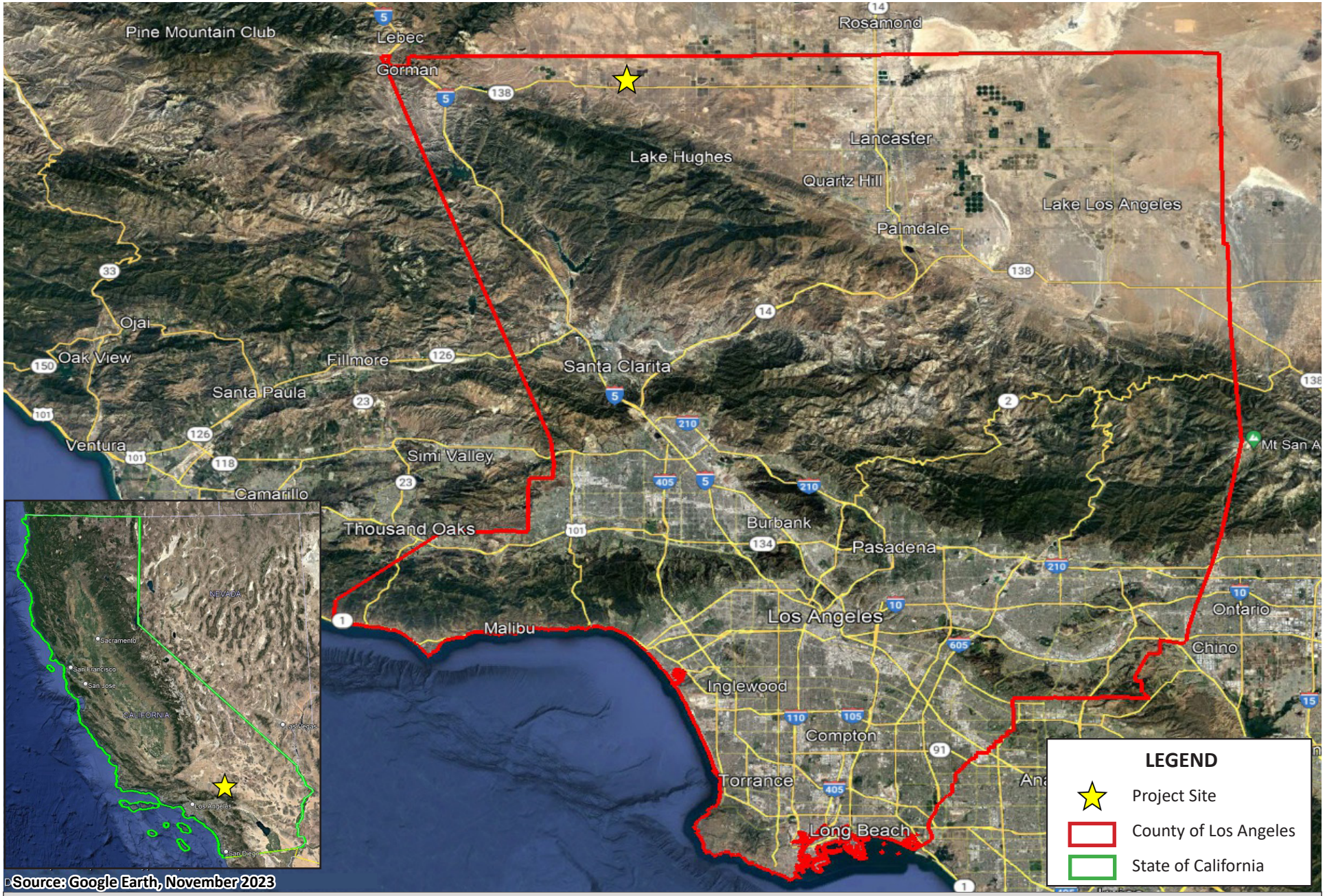


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

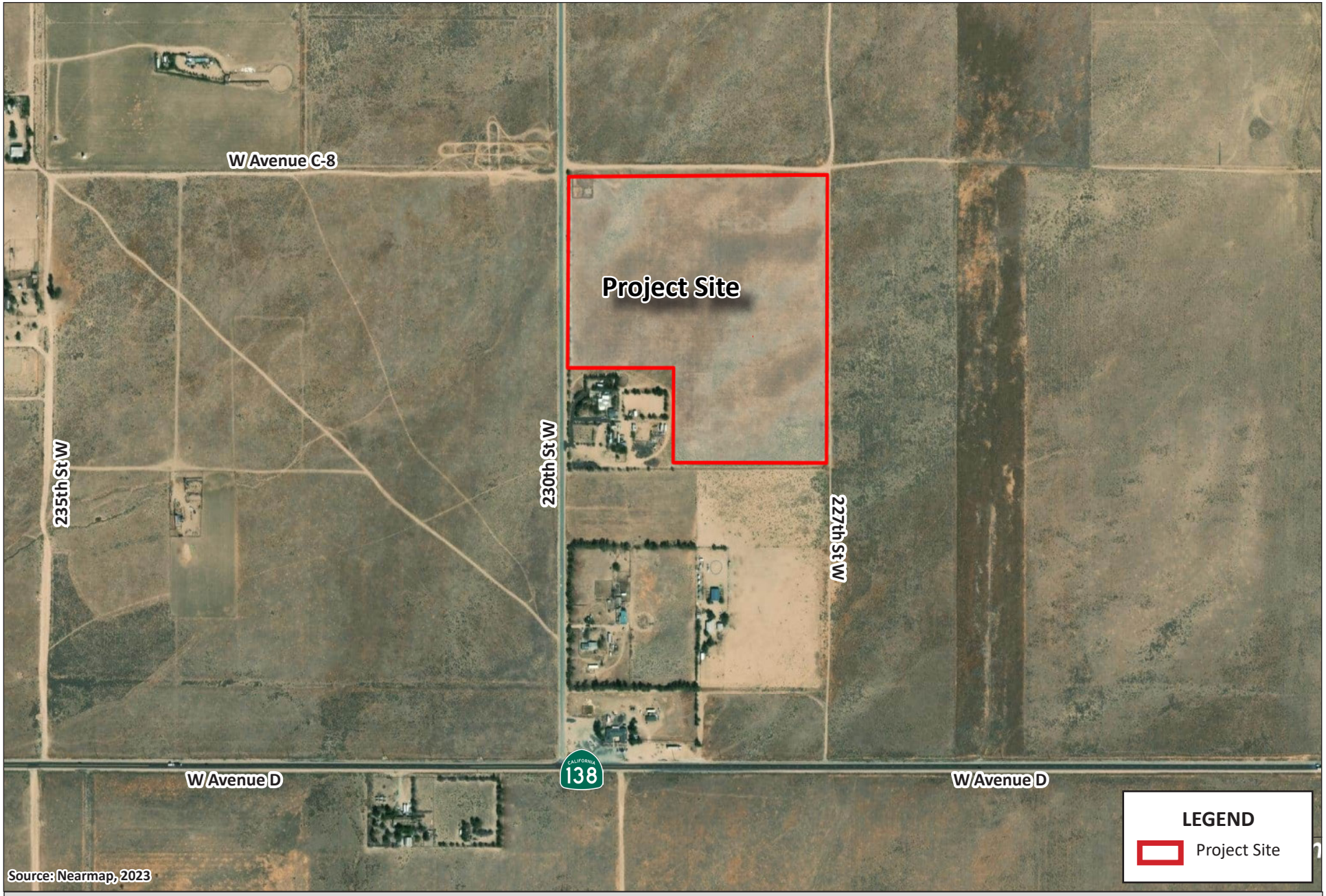


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection, and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

Site access would be provided via a new driveway constructed from 230th Street W. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The access roads would encircle the whole array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site Boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. As little as 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.

The Project proposes a 10-foot landscape buffer between the fence and the access road on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8. The Project would be enclosed in a six foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24 hour access for emergency responders.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as June 2026.[1] Project construction activities generally fall into six main categories: (1) demolition; (2) site preparation (vegetation clearing); (3) grading; (4) paving; (5) system installation; and (6) testing, commissioning, and cleanup.[2] Construction personnel will be divided between civil and electrical services. During Project construction, non-potable water would be required for common construction-related purposes, including but not limited dust suppression, soil compaction, and grading. No new water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction.

[1] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.

[2] Note that the modeling does not account for testing, commissioning, and cleanup as heavy-duty construction equipment would not be utilized.

Operations

The Project would operate year-round. The Project Site would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

During Project O&M, it is anticipated that minimal water would be required for solar panel washing. Water consumption for washing panels is expected to be approximately 0.2 acre-feet (AF) of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge (inundation of water), and no chemicals or other materials are used. It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department standards. The water tank shall have a Los Angeles County Fire Department supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning complies with all applicable local, State, and federal requirements and best management practices (BMPs). The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

ACOUSTIC FUNDAMENTALS

Sound and Environmental Noise

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g., air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. In acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receptor determine the sound level and characteristics of the noise perceived by the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this ambient noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness. **Table 1: Typical Noise Levels** provides typical noise levels.

Table 1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	– 110 –	Rock Band
Jet fly-over at 1,000 feet		
	– 100 –	
Gas lawnmower at 3 feet		
	– 90 –	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	– 80 –	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	**– 70 –**	Vacuum cleaner at 10 feet
Commercial area		Normal Speech at 3 feet
Heavy traffic at 300 feet	**– 60 –**	
		Large business office
Quiet urban daytime	**– 50 –**	Dishwasher in next room
Quiet urban nighttime	**– 40 –**	Theater, large conference room (background)
Quiet suburban nighttime		
	– 30 –	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	– 20 –	
		Broadcast/recording studio
	– 10 –	
Lowest threshold of human hearing	**– 0 –**	Lowest threshold of human hearing

Source: California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

Noise Descriptors

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The equivalent noise level (L_{eq}) represents the continuous sound pressure level over the measurement period, while the day-night noise level (L_{dn}) and Community Noise Equivalent Level (CNEL) are measures of energy average during a 24-hour period, with dB weighted sound levels from 7:00 p.m. to 7:00 a.m. Most commonly, environmental sounds are described in terms of an average level (L_{eq}) that has the same acoustical energy as the summation of all the time-varying events. Each is applicable to this analysis and defined in **Table 2: Definitions of Acoustical Terms**.

Table 2: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

The A-weighted decibel (dBA) sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports.

A-Weighted Decibels

The perceived loudness of sound is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA sound levels and the way the human ear perceives sound. For this reason, the dBA sound level has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of dBA, but are expressed as dB, unless otherwise noted.

Addition of Decibels

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound and twice as loud as a 60 dBA sound.[3] When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions.[4] Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dBA.

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics.[5] No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed.

---

[3] Federal Highway Administration (FHWA), *Noise Fundamentals,* 2017, https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm, accessed December 13, 2023

[4] Ibid.

[5] California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, page 2-29.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA.[6] The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by weighted average noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA.[7] Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted[8]:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10 dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Effects of Noise on People

Hearing Loss. While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing

---

[6] James P. Cowan, *Handbook of Environmental Acoustics,* 1994.

[7] Compiled from James P. Cowan, *Handbook of Environmental Acoustics,* 1994 and Cyril M. Harris, Handbook of Noise Control, 1979.

[8] Compiled from California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, and FHWA, *Noise Fundamentals,* 2017.

loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance. Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.[9]

GROUNDBORNE VIBRATION

Sources of groundborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 3: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in **Table 3** should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

[9] Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Table 3: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations			
Maximum PPV (in/sec)	**Vibration Annoyance Potential Criteria**	**Vibration Damage Potential Threshold Criteria**	**FTA Vibration Damage Criteria**
0.008	--	Extremely fragile historic buildings, ruins, ancient monuments	--
0.01	Barely Perceptible	--	--
0.04	Distinctly Perceptible	--	--
0.10	Strongly Perceptible	Fragile buildings	--
0.12	--	--	Buildings extremely susceptible to vibration damage
0.2	--	--	Non-engineered timber and masonry buildings
0.25	--	Historic and some old buildings	--
0.3	--	Older residential structures	Engineered concrete and masonry (no plaster)
0.4	Severe	--	--
0.5	--	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel or timber (no plaster)
PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration			
Source: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020 and Federal Transit Administration, *Transit Noise and Vibration Assessment Manual*, 2018.			

Ground vibration can be a concern in instances where buildings shake and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment. For the purposes of this analysis, a PPV descriptor with units of inches per second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

EXISTING NOISE SETTING

Existing Stationary Noise Levels

The Project Site is located within a rural area. The primary sources of stationary noise in the Project vicinity are related to existing traffic along East Palmdale Boulevard and 230th Street E located west of the Project Site and W Avenue C 8 located south of the proposed Project Site. The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Existing Ambient Noise Levels

To quantify existing ambient noise levels in the Project vicinity, Kimley-Horn and Associates conducted four noise measurements on October 9, 2023; refer to **Table 4: Noise Measurements** and **Figure 3: Noise Measurement Locations**. The noise measurement sites were representative of typical existing noise exposure within the Project vicinity. The fifteen-minute measurements were taken between 9:18 a.m. and 10:33 a.m. These short-term (L_{eq}) measurements are considered representative of the noise levels in the Project vicinity.

Table 4: Noise Measurements						
Site No.	**Location**	**L_{eq} (dBA)**	**L_{min} (dBA)**	**L_{max} (dBA)**	**Peak (dBA)**	**Time**
1	Southwest corner of Project Site on 230th Street West	54.3	26.3	77.1	92.6	9:18 a.m.
2	Northwest corner of Project Site between W Avenue C 8 and 230th Street West	30.4	23.3	46.1	78.4	9:41. a.m.
3	Northeast corner of the Project Site W Avenue C 8	29.7	23.2	41.8	75.7	10:03 a.m.
4	Southeast of the Project Site on W Avenue D	48.3	30.4	57.1	83.2	10:33 a.m.
Source: Kimley-Horn and Associates, October 9, 2023 (refer to **Appendix A: Noise Data**).						

Meteorological conditions consisted of clear skies, warm temperatures, with light wind speeds (5 miles per hour), and low humidity. Measured daytime noise levels ranged from 29.7 to 54.3 dBA L_{eq}. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters.

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include single and multiple family residential areas, group homes, parks, and open space lands where quiet is a basis for use. Additional land uses such as schools, churches, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptor to the Project Site is a residential use located approximately 110 feet to the south; refer to **Figure 3**.

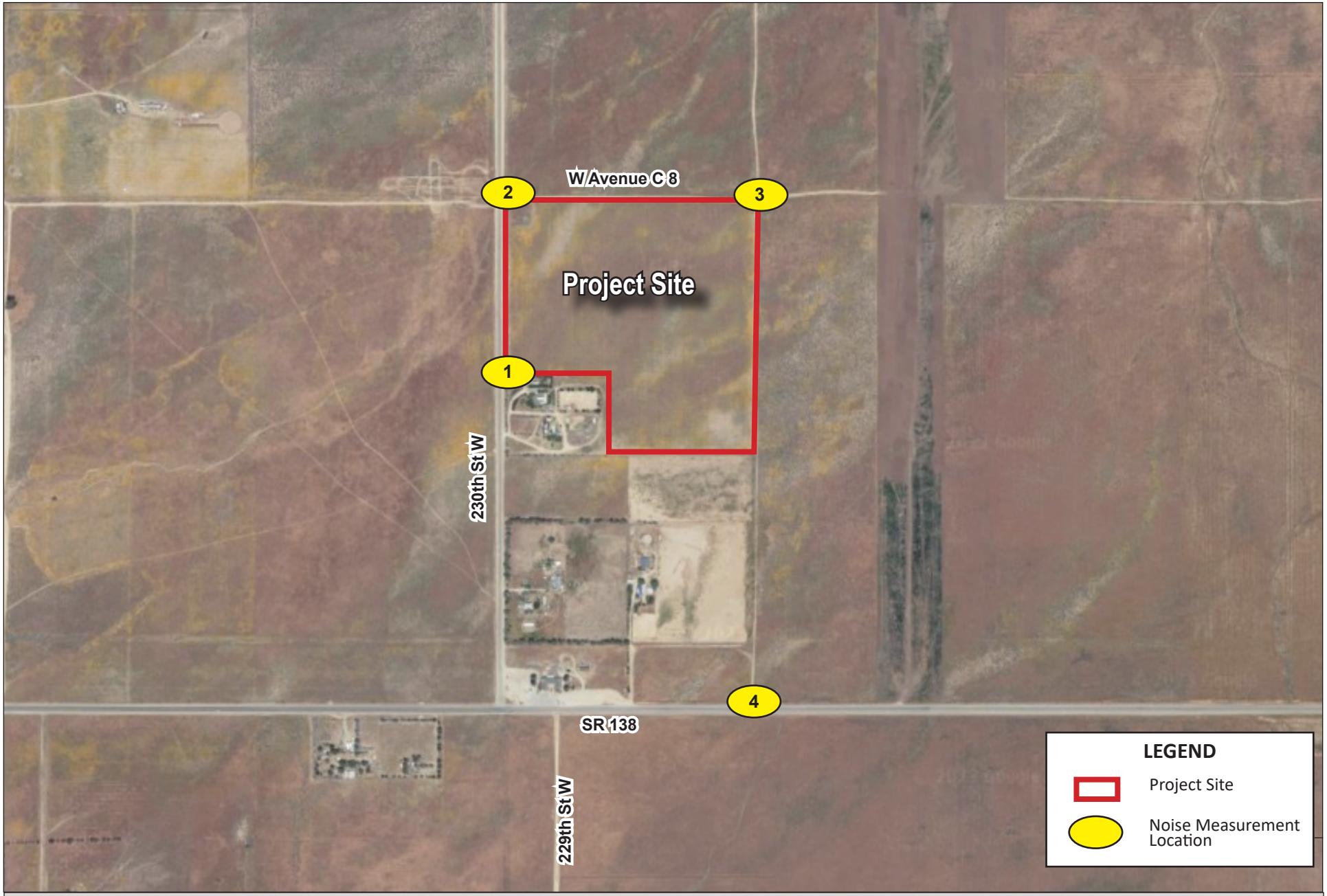


Figure 3: Noise Measurement Locations
230th Street Solar Project

NOT TO SCALE

Kimley»Horn

REGULATORY FRAMEWORK

Federal

Occupational Safety and Health Administration (OSHA)

With the Occupational Safety and Health Act of 1970, Congress created OSHA to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance. The Act requires protection against the effects of noise exposure for employees when sound levels exceed 90 dBA over an eight-hour period. If such controls fail to reduce sound levels to within acceptable levels, personal protective equipment is required. Additionally, a Hearing Conservation Program must be instituted by the employers whenever employee noise exposure equals or exceeds an eight-hour time-weighted average sound level of 85 dBA. The Hearing Conservation Program requirements consist of periodic area and personal noise monitoring, performance and evaluation of audiograms, provision of hearing protection, annual employee training, and record keeping.

State

California Noise Control Act of 1973

California Health and Safety Code (HSC) Sections 46000 through 46080, known as the California Noise Control Act, find that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The California Noise Control Act also finds that there is a continuous and increasing bombardment of noise in urban, suburban, and rural areas. The California Noise Control Act declares that the State has a responsibility to protect the health and welfare of its citizens through the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare.

State Office of Planning and Research

The State Office of Planning and Research's *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *Noise Element Guidelines* contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Local

Los Angeles County General Plan 2035

The Los Angeles County General Plan 2035, updated July 14, 2022, serves as a set of plans and tools for unincorporated areas in Los Angeles County. The following policies in the Noise Element provide specific noise compatibility standards:

Noise Element

Goal N 1: The reduction of excessive noise impacts.

Policy N 1.1: Utilize land uses to buffer noise sensitive uses from sources of adverse noise impacts.

Policy N. 1.5: Ensure compliance with the jurisdiction of State Noise Insulation Standards (Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code), such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or L_{dn}) noise exposure contours.

Policy N 1.9: Require construction of suitable noise attenuation barriers on noise sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.

Policy N 1.11: Maximize buffer distances and design and orient sensitive receptor structures (hospitals, residents, etc.) to prevent noise and vibration transfer from commercial/light industrial uses.

The Los Angeles County General Plan Table 11.2 (Los Angeles County Community Noise Criteria) establishes noise standards for various land uses.

County of Los Angeles Exterior Noise Standards (by Noise Zone)			
Noise Zone	**Designated Noise Zone Land Use (Receptor Property)**	**Time Interval**	**Exterior Noise Level (dB)**
I	Noise Sensitive	Anytime	45
II	Residential	10 p.m. to 7 a.m. (nighttime)	45
		7 a.m. to 10 p.m. (daytime)	50
III	Commercial	10 p.m. to 7 a.m. (nighttime)	55
		7 a.m. to 10 p.m. (daytime)	65
IV	Industrial	Anytime	70

Los Angeles County Code of Ordinances

The Los Angeles County Code of Ordinances Section 12.08.440 *Construction Noise* establishes general sound level standards during construction. Pursuant to Section 12.08.440, operating or causing the operation of any tools or equipment between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, except for emergency work of public services utilities is prohibited. Allowable noise levels at single-family residential land uses are 75 dBA during daytime hours except Sundays and legal holidays and 7:00 a.m. to 8:00 p.m. and 60 dBA nighttime from 8:00 p.m. to 700 a.m. and all day Sunday and legal holidays.[10]

[10] Los Angeles County Code of Ordinances, Section 12.08.440 *Construction Noise,* https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT12ENPR_CH12.08NOCO, accessed December 13, 2023.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Project would have a significant impact in regard to noise and vibration if one or more of the following would occur:

Threshold a): Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (refer to Impact NOI-1);

Threshold b): Generation of excessive groundborne vibration or groundborne noise levels (refer to Impact NOI-2); or

Threshold c): For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels (refer to Impact NOI-3).

IMPACT ANALYSIS

NOI-1 Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Construction Activities

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation). Noise generated by construction equipment, including earth movers, and material handlers, can reach high levels. During construction, exterior noise levels could affect the nearest sensitive receptors in the vicinity of the construction site. The nearest sensitive receptor is a residential use located approximately 110 feet to the south of the Project Site. It is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to the sensitive receptor.

Project construction is anticipated to be completed over a period of approximately seven months. The Project involves construction activities associated with demolition, site preparation, grading, paving, construction/installation, and PV vendor trips. **Table 5: Typical Construction Noise Levels**, reflects maximum sound levels (L_{max}) that could be expected from the equipment-types listed at a reference distance of 50 feet from the noise source, which are the highest individual sound occurring at an individual time period. Operating cycles for the listed types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other sources of construction noise could include random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Table 5: Typical Construction Noise Levels	
Equipment	**Typical Noise Level (dBA) at 50 feet from Source (L_{max})**
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Mounted Impact Hammer (hoe ram)	90
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scraper	85
Shovel	82
Truck	84
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018; Federal Highway Administration, *Roadway Construction Noise Model User's Guide*, January 2006.	

The FHWA Roadway Construction Noise Model (RCNM) was used to calculate the worst-case construction noise levels at the nearest sensitive receptor in the vicinity of the Project Site during construction. The modeled receptor location represents the closest existing receiving land use to Project construction activities. Noise levels at other sensitive receptors surrounding the Project Site would be located further away and would experience lower construction noise levels than the closest receptors modeled.

The Los Angeles County Code of Ordinances establishes quantitative construction noise standards. Construction activities shall not exceed a threshold of 75 dBA at the nearest sensitive receptor.[11]

The noise levels calculated in **Table 6: Project Construction Noise Levels** show estimated noise levels for the worst-case construction noise scenario without accounting for attenuation from intervening barriers, structures, or topography. The nearest noise sensitive receptor (residential use) is located approximately 110 feet to the south of the Project Site. Following the Federal Transit Administration (FTA) methodology, when calculating construction noise, all equipment is assumed to operate at the center of the Project because equipment would operate throughout the Project Site and not at a fixed location for extended

[11] Los Angeles County Code of Ordinances, Section 12.08.440 Construction Noise, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT12ENPR_CH12.08NOCO_PT4SPNORE_12.08.440CONO, accessed December 19, 2023.

periods of time. Therefore, the distance used in the RCNM model was 718 feet to the nearest sensitive receptor (i.e., residential use) to the south of the Project Site.

Other receptors in the Project vicinity would be located further away and would experience lower construction noise levels than the closest receptor modeled. All construction equipment was assumed to operate simultaneously to represent a worst-case noise scenario as construction activities would routinely be spread throughout the construction site and would operate at different intervals.

Table 6: Project Construction Noise Levels

Construction Phase	Land Use	Receptor Location			Noise Threshold [2] (dBA L_{eq})	Exceeded?
		Direction	Distance (feet)	Worst Case Modeled Exterior Noise Level (dBA L_{eq})		
Demolition	Residential	South	718	63.3	75	**No**
Site Preparation	Residential	South	718	58.9	75	**No**
Grading	Residential	South	718	59.2	75	**No**
Construction/Installation	Residential	South	718	71.8	75	**No**
PV Vendor Trips	Residential	South	718	56.9	75	**No**
Paving	Residential	South	718	49.9	75	**No**

1. Per the methodology described in the FTA *Transit Noise and Vibration Impact Assessment Manual* (September 2018), distances are measured from the nearby sensitive receptor property line to the center of the Project construction site.
2. The Los Angeles County Code of Ordinances Section 12.08.440 Construction Noise establishes a threshold of 75 dBA for residential uses.

Source: Federal Highway Administration, *Roadway Construction Noise Model,* 2006. Refer to **Appendix A** for noise modeling results.

According to the Los Angeles County Code of Ordinances, construction activities shall be limited to the daytime hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday. Construction is prohibited on Sundays and on holidays.[12] Los Angeles County establishes a quantitative construction noise standards of 75 dBA for residential uses.

As depicted in **Table 6**, the closest sensitive receptor could be exposed to temporary and intermittent noise levels up to 72 dBA during construction/Installation which would not exceed the County's construction noise standard of 75 dBA L_{eq}. As previously noted, noise levels presented in **Table 6** are conservative, as these noise levels assume the simultaneous operation of all construction equipment at the same precise location. More likely, construction equipment would be used throughout the Project Site and would not be concentrated at one location within the Project Site. Therefore, impacts would be less than significant.

Construction Traffic

Construction activities would also cause increased noise along access routes to and from the Project Site due to movement of equipment and workers, as well as hauling trips. On-site soils are expected to balance, and no import or export of soils is anticipated. It is anticipated that construction worker trips would be a maximum of 41 total daily trips, water truck trips from off-site wells would be a maximum of

[12] Los Angeles County Code of Ordinances Section 12.08.440 *Construction Noise*.

11 daily trips, and vendor trips would be a maximum of 2 daily trips (PV panel vendor trips).[13,14] As a result, mobile source noise would increase along access routes to and from the Project Site during construction. However, mobile traffic noise from construction trips would be temporary and would cease upon completion of Project construction. Further, construction activities shall be limited to the daytime hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday. Construction is prohibited on Sundays and on holidays Therefore, upon compliance with the County's allowable construction hours, short-term noise impacts from construction traffic would be less than significant.

Operations

Project O&M would include permanent and temporary noise sources associated with the solar PV systems, electrical collection lines, BESS, and maintenance activities. For purposes of this analysis, noise regulations included in the Los Angeles County Code of Ordinances have been utilized.

Solar PV Systems

The solar PV arrays would include operation of single-axis tracking systems. Single-axis tracking systems employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise.

Noise from the tracker motor is approximately 40 dBA at 10 feet from the source.[15] During daylight hours, the tracking system motors would operate for a short period of time (normally two seconds) and pause for a longer period of time (about five minutes) before operating again. After sunset and before sunrise the next day, the array must reset to face easterly; this reset motion occurs once daily and takes approximately three minutes. The nearest sensitive noise receptor to any tracker would be the residential use located approximately 110 feet to the south of the Project Site. At this distance, noise levels associated with solar PV array tracker would be inaudible. Impacts would be less than significant.

Inverters and Transformers

Additional permanent noise sources from the Project Site would include small-scale inverters, AC combiner boxes, medium voltage transformers, and/or medium voltage switchgear. Small-scale inverters typically generate 65 dBA at 1 meter (3.28 feet)[16] and medium voltage transformers typically generate 63 dBA at 1 meter (3.28 feet).[17] The inverter, transformer, and switchpad would be located within the center portion of the Project Site. As the nearest sensitive receptor could be located as close as 110 feet south from the Project boundary line, small-scale inverter and medium voltage transformer noise levels would be inaudible at the nearest sensitive receptor.

[13] Worker trips are based on the peak construction workforce (70 individuals) with the Los Angeles County Average Vehicle Occupancy rate for home-work applied (Source: Southern California Association of Governments, *Year 2000 Post-Census Regional Travel Survey*, *Table 12*, dated 2003.)

[14] Water truck trips and vendor trips (construction materials and PV panels) are based on similar sized solar sites.

[15] San Bernardino County, Desert Breeze Solar Project Draft Environmental Impact Report, September 2023.

[16] San Bernardino County, Desert Breeze Solar Project Draft Environmental Impact Report.

[17] National Electrical Manufacturers Association, *NEMA TR 1-2013 Transformers, Step Voltage Regulators and Reactors,* 2014.

Electrical Collection Lines

The Project includes installation of underground electrical collection lines. Therefore, noise levels associated with electrical collection lines would be inaudible at the nearest sensitive receptor, located approximately 110 feet to the south of the Project Site. Impacts would be less than significant.

Battery Energy Storage System (BESS)

The primary noise source associated with BESS operations would be the use of heating, ventilation, and air conditioning (HVAC) units (the BESS does not generate noise itself). The Project includes a BESS, which would require multiple HVAC units to operate simultaneously. Based on standard HVAC units for other energy storage projects, a reference level of 52.3 dBA at a distance of 50 feet during full operation has been assumed.[18,19,20] The BESS would be located in the southwest area of the Project Site, approximately 130 feet from the residential use to the south. Therefore, a distance of 130 feet measured from the nearest BESS unit at the southwest corner of the Project Site to the nearest sensitive receptor was used for the calculated BESS HVAC noise levels. At this distance, noise levels from the BESS HVAC units are estimated at approximately 44.0 dBA. Therefore, the Project would not exceed County daytime or nighttime noise standards of 50 dBA and 45 dBA, respectively. Impacts would be less than significant, and no mitigation is required.

Maintenance Activities

Panel Washing Noise. The Project would require panel washing up to four times per year. Panel washing activities would not require power washing equipment and would consist of hand washing. Noise related to the water trucks is discussed below. Therefore, negligible noise levels from panel washing would result. Impacts would be less than significant.

Vehicular Noise. The Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities and would not increase personnel daily trips external to the site when compared to existing conditions. As previously stated, the Project is expected to generate a total of approximately 10 operational roundtrips per year (20 one-way trips). These activities are not expected to occur on a daily basis and would not generate a significant amount of traffic or create a substantial increase of vehicular noise in the area. Any increase in traffic would be minimal and sporadic and only occur during daytime hours. On a worst-case day, one maintenance truck and one water truck would travel to the Project Site at the same time. Assuming that two passenger vehicles, one medium-duty truck, and one heavy-duty truck would visit the Project Site at the same time, a noise level of 36.6 dBA would be generated at approximately 100 feet. This noise level would not exceed the County's daytime threshold of 50 dBA; therefore, impacts from vehicular noise would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities would result in a temporary increase in ambient noise levels in the Project vicinity. Given the fact that much of the

[18] Kern County Planning and Natural Resources Department, *Acoustical Assessment for the AVEP Project*, August 5, 2020.
[19] The reference noise level has been adjusted to account for four HVAC units. See **Appendix A**.
[20] The Project could potentially include the use of a liquid-cooled BESS system, which would eliminate the need for HVAC equipment. Traditional HVAC has been assumed in the analysis as a worst-case assumption.

construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable to assume that noise generated from decommissioning activities would be similar in nature to construction activities. Similar to the construction noise analysis above, Project decommissioning would potentially result in increased noise levels compared to existing conditions. However, the Los Angeles County Code of Ordinances states that construction activities shall be limited to the daytime hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday and construction is prohibited on Sundays and on Holidays. Therefore, upon compliance with the County's allowable construction hours; short-term noise impacts from decommissioning activities would be less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

NOI-2 Would the Project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction

Project construction would include demolition, site preparation, grading, construction/installation, PV vendor trips, and paving (access road installation) and would not require blasting. While these construction activities would result in groundborne vibration, such groundborne vibration would attenuate rapidly from the source and would not generally be perceptible beyond the boundaries of the Project Site.

The FTA has published standard vibration velocities for construction equipment operations. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. The California Department of Transportation (Caltrans) and the FTA have identified various vibration damage criteria for different building classes. As the closest receptor is a residential use, this evaluation uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 in/sec PPV and the human annoyance criterion of 0.04 in/sec PPV; refer to **Table 3**. The vibration produced by construction equipment, is illustrated in **Table 7: Typical Vibration Levels for Common Construction Equipment**.

Table 7: Typical Vibration Levels for Common Construction Equipment

Equipment	Reference PPV at 25 feet (in/sec)	Approximate PPV at 110 feet (in/sec)[1]
Vibratory Compactor/Roller	0.21	0.023
Large bulldozer	0.089	0.010
Loaded trucks	0.076	0.008
Small bulldozer	0.003	<0.001

Notes:
1. Calculated using the following formula:
   PPV equip = PPVref x $(25/D)^{1.5}$
   where: PPV (equip) = the peak particle velocity in inch-per-second of the equipment adjusted for the distance

Table 7: Typical Vibration Levels for Common Construction Equipment
PPV (ref) = the reference vibration level in inch-per-second from Table 7-4 of the FTA Transit Noise and Vibration Impact Assessment Manual D = the distance from the equipment to the receiver Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Groundborne noise and vibration decreases rapidly with distance. As indicated in **Table 7**, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from <0.001 to 0.023 in/sec PPV at 110 feet (measured from the edge of construction activity to the nearest structure) south of the Project Site. At this distance, vibration velocities would be imperceptible (i.e., up to 0.023 in/sec PPV for a vibratory roller at the Project Site). Therefore, the 0.2 in/sec PPV architectural damage significance threshold and the 0.04 in/sec PPV human annoyance criteria would not be exceeded as a result of Project construction activities. Thus, no sources of groundborne vibration or groundborne noise would be expected to affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

Operations

The Project would have O&M components, such as HVAC systems for the BESS, maintenance vehicles, small-scale inverters, and medium voltage transformers, that would not generate noticeable groundborne vibration levels. Project operations would not involve any sources capable of generating perceptible levels of vibration in the surrounding area. There would be no permanent source or potential to change vibration levels, except during unscheduled maintenance or repair activities, which would be similar to construction activities. Regular maintenance trucks could generate 0.076 in/sec PPV a distance of 25 feet (refer **Table 7**). Pursuant to the FTA Transit Noise and Vibration Impact Assessment Manual, groundborne vibration should not exceed 0.2 in/sec PPV at the nearest property line within a residential, commercial, and industrial land use zoning district. Land use zoning districts surrounding the Project Site include Heavy Agriculture Zoning (A-2-2), which allows residential uses.[21] Although residential land use zoning districts surround the Project Site, regular maintenance trucks would not generate groundborne vibration levels exceeding the FTA's 0.2 in/sec PPV vibration threshold at structures located along Project area roadways. As the nearest vibration-sensitive receptor is located approximately 110 feet (measured from the edge of construction activity to the nearest structure) south from the Project Site and structures in the Project area are not located nearer than 25 feet to roadways, operational vibration levels at the nearest off-site receptors would be imperceptible. Thus, the FTA's 0.2 in/sec PPV vibration threshold would not be exceeded, and impacts would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities could result in temporary vibration impacts at close distances. Given the fact that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable

[21] Los Angeles County Code of Ordinances, Section 22.16.020 Agricultural Zones Designation. https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO_DIV3ZO_CH22.16AGOPSPREREWAZO_22.16.020AGZODE, accessed December 19, 2023.

to assume that vibration generated from decommissioning activities would be similar in nature to construction activities. As with the construction activities described above, decommissioning activities would not be expected to generate groundborne noise that would affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

NOI-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

The nearest airport to the Project Site is the Grey Butte Field Airport located approximately 64 miles to the southeast. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels. No impact would occur in this regard.

Impact Determination: No Impact.

Mitigation Measures: No mitigation is required.

CUMULATIVE IMPACTS

Construction Noise

The Project's construction activities would not result in a substantial temporary increase in ambient noise levels at the nearest sensitive receptors. Construction noise would be periodic and temporary noise impacts that would cease upon completion of construction activities. The Project would contribute to other proximate construction project noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the Project's construction-related noise impacts would be less than significant and would be required to comply with the Los Angeles County General Plan and the Los Angeles County Code of Ordinances. The combination of the Project together with other related present and reasonably foreseeable developments in the Project vicinity could involve actions with the potential to result in noise impacts. However, construction noise impacts for each cumulative project would be mitigated through compliance with the County's standards and any necessary mitigation measures identified through the County's development review process. Thus, construction noise impacts would not be cumulatively considerable, and impacts would be less than significant.

Operational Noise

Project operation would not result in a substantial permanent increase in ambient noise levels from on-site stationary or off-site mobile traffic noise sources. Similarly, cumulative projects in the Project vicinity would be subject to the development review process, which could include conditions of approval or mitigation measures, as necessary, to minimize the exposure of sensitive receptors and other receiving land uses to excessive noise to the furthest extent possible. Therefore, operational noise impacts would not be cumulatively considerable, and impacts would be less than significant.

Decommissioning

Cumulative projects in the Project vicinity would likely be operational and contribute to the overall ambient noise conditions prior to Project decommissioning activities. Thus, temporary noise and vibration impacts from decommissioning activities associated with the Project would not likely combine with other cumulative projects in close proximity and at the same time. As noted above, it is reasonable to assume that noise and vibration generated from decommissioning activities would be similar in nature to construction activities, which would not exceed applicable thresholds and would result in less than significant impacts. Cumulative projects would be subject to County noise standards. Therefore, cumulative noise and vibration impacts during Project decommissioning activities would not be cumulatively considerable, and impacts would be less than significant.

REFERENCES

California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

California Department of Transportation, Transportation and Construction Vibration Guidance Manual, 2020.

California Department of Transportation, Transportation and Construction Vibration Guidance Manual, 2020.

Cyril M. Harris, Handbook of Noise Control, 1979.

Federal Highway Administration, Noise Fundamentals, 2017.

Federal Highway Administration, Roadway Construction Noise Model, 2006.

Federal Highway Administration, Roadway Construction Noise Model User's Guide Final Report, 2006.

Federal Interagency Committee on Noise, Federal Agency Review of Selected Airport Noise Analysis Issues, August 1992.

Federal Transit Administration, Transit Noise and Vibration Assessment Manual, 2018.

Los Angeles County Code of Ordinances, Section 12.08.440 Construction Noise. https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT12ENPR_CH12.08NOCO_PT4SPNORE_12.08.440CONO, accessed December 19, 2023.

Los Angeles County Department of Regional Planning, 2022, Los Angeles County Final General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 22, 2023.

James P. Cowan, Handbook of Environmental Acoustics, 1994.

Kern County Planning and Natural Resources Department, Acoustical Assessment for the AVEP Project, August 5, 2020.

National Electrical Manufacturers Association, NEMA TR 1-2013 Transformers, Step Voltage Regulators and Reactors, 2014.

San Bernardino County, Desert Breeze Solar Project Draft Environmental Impact Report, https://www.sbcounty.gov/uploads/LUS/Environmental/DESERT_BREEZE_SOLAR/_Desert%20Breeze%20Solar%20Project%20Draft%20EIR.pdf, accessed December 20, 2023.

Southern California Association of Governments, *Year 2000 Post-Census Regional Travel Survey, Table 12*, dated 2003.

Appendix A

Noise Data

Noise Measurement Field Data

Project:	230th Street Lancaster	**Job Number:**	
Site No.:	ST-1	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	9:18 AM
Location:	33.6073117, -114.5489780		
Noise Sources:	Birds, wind, cars, flying insects		
Comments:	**File ING.063**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
54.3	26.3	77.1	92.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	75
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	30%

Photo:



Kimley»Horn

Summary

File Name on Meter	lng.063.s
File Name on PC	LxTse_0005586-20231009 091655-lng.063.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-09 09:16:55
Stop	2023-10-09 09:31:55
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-08-31 10:04:48
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	C	Z
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**25.3**	26.0	31.7 dB
Noise Floor	16.1	16.8	22.5 dB

	First	Second	Third
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	54.3 dB	
LAE	83.8 dB	
EA	26.915 µPa²h	
LApeak (max)	2023-10-09 09:29:21	92.0 dB
LASmax	2023-10-09 09:29:21	77.1 dB
LASmin	2023-10-09 09:24:28	26.3 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	54.3	54.3	-99.9	54.3	54.3	-99.9	-99.9	dB

LCeq	59.0 dB
LAeq	54.3 dB
LCeq - LAeq	4.7 dB
LAleq	57.6 dB
LAeq	54.3 dB
LAleq - LAeq	3.3 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	54.3		59.0			
LS(max)	77.1	2023/10/09 9:29:21				
LS(min)	26.3	2023/10/09 9:24:28				
LPeak(max)	92.0	2023/10/09 9:29:21				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LA 5.00	50.7 dB
LA 10.00	44.4 dB
LA 33.30	35.4 dB
LA 50.00	33.2 dB
LA 66.60	31.7 dB
LA 90.00	29.4 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**	**12.5**	**16.0**	**20.0**	**25.0**	**31.5**	**40.0**	**50.0**	**63.0**	**80.0**	**100**	**125**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3150**	**4000**	**5000**	**6300**	**8000**	**10000**	**12500**	**16000**	**20000**
Direct	2019-10-29 12:18:45	-28.39	2.58	5.73	0.93	0.50	3.86	9.51	0.44	-3.11	1.43	6.00	2.05	-3.57	7.95	14.24	0.02	5.29	13.46	6.91	5.51	6.87	6.62	5.46	4.67	7.03	8.87	9.88	11.23	13.40	11.42	40.36	23.45	16.13	16.83	19.76	18.96	19.66
PRMLxT1L	2023-08-31 10:04:48	-28.76	61.03	61.98	57.52	60.54	55.29	55.45	52.03	56.13	51.43	52.86	50.08	46.64	44.05	42.29	40.24	37.71	31.00	27.38	25.45	24.01	16.34	28.63	114.03	49.13	18.74	66.81	19.33	58.08	19.61	27.07	21.34	22.67	24.08	25.72	28.04	30.76
PRMLxT1L	2023-08-14 09:21:22	-28.80	71.99	60.72	64.53	70.08	63.71	67.13	60.17	57.01	58.38	57.73	57.84	53.97	43.98	41.61	39.62	31.13	30.71	31.16	26.66	22.48	18.46	28.88	113.96	49.06	19.58	66.31	19.22	58.61	19.98	27.20	21.45	22.57	24.00	25.60	27.84	30.65
PRMLxT1L	2023-08-02 08:47:34	-28.78	52.32	54.78	54.24	61.95	67.23	63.90	60.11	66.50	67.18	65.63	67.81	58.63	62.44	62.97	59.45	56.82	56.57	49.11	41.87	44.95	39.11	31.91	114.01	49.20	19.78	66.22	20.13	58.78	19.78	27.29	21.19	22.83	23.65	25.47	27.96	30.70
PRMLxT1L	2023-08-02 08:45:53	-28.81	63.42	57.07	62.26	59.06	64.40	63.93	61.00	59.31	57.80	60.57	63.65	73.88	60.21	63.97	56.12	59.45	55.95	51.94	48.19	48.57	41.68	32.21	113.92	49.05	20.13	66.18	19.50	58.69	19.68	27.63	21.29	22.46	23.81	25.75	27.85	30.58
PRMLxT1L	2023-07-13 12:40:44	-28.75	66.48	69.97	55.31	57.78	62.25	60.41	52.04	59.64	56.55	53.66	55.01	52.17	53.95	53.05	57.87	52.77	50.89	49.51	49.22	47.27	41.20	32.67	114.13	49.64	22.14	66.59	19.40	59.22	19.80	28.04	21.49	22.96	24.29	26.12	28.35	30.63
PRMLxT1L	2023-07-13 09:51:44	-28.90	59.31	60.71	58.62	58.55	59.70	61.21	55.40	52.93	54.87	52.65	50.34	53.26	56.31	49.85	55.07	47.59	42.80	42.90	36.42	37.06	30.68	29.45	113.98	49.32	18.75	66.17	19.46	59.00	19.93	27.68	21.66	22.12	23.76	25.78	27.67	30.87
PRMLxT1L	2023-07-13 09:23:44	-28.90	60.41	60.71	59.50	63.74	60.22	56.73	57.65	53.07	53.21	54.90	55.01	51.50	56.50	51.18	46.63	44.37	45.45	40.66	36.44	31.18	28.12	28.93	113.89	49.22	20.28	65.88	19.60	58.94	19.28	27.57	21.28	22.65	23.74	25.74	27.87	30.71
PRMLxT1L	2023-06-27 08:29:08	-28.80	62.55	58.54	56.17	61.21	48.58	46.35	57.62	53.72	60.54	57.94	56.79	54.45	51.06	47.79	42.98	39.91	36.82	39.43	37.83	26.63	25.08	29.05	114.00	48.90	19.00	66.00	19.76	58.87	20.08	27.50	21.16	22.32	23.59	25.56	28.00	30.62
PRMLxT1L	2023-06-07 08:55:01	-28.82	69.12	55.56	51.67	63.01	51.53	53.14	49.70	57.03	69.87	63.77	60.99	54.17	49.20	52.67	41.66	37.47	38.68	33.57	33.80	31.32	27.01	29.00	113.97	49.08	20.28	66.12	19.52	58.84	19.73	27.36	21.18	22.57	24.05	25.61	28.16	30.80
PRMLxT1L	2023-06-06 10:03:27	-28.81	59.32	45.72	59.12	53.11	55.62	59.35	48.39	51.52	54.26	57.37	58.12	48.84	50.77	48.89	42.29	51.51	46.84	39.38	36.32	29.73	33.08	28.44	113.92	48.80	18.43	65.85	19.67	58.83	19.79	27.84	21.00	22.22	23.71	25.18	27.26	30.41
PRMLxT1L	2023-06-01 09:59:25	-28.74	44.79	51.19	54.83	55.61	55.13	46.54	58.98	55.37	53.40	60.52	61.55	53.00	57.22	54.29	50.43	48.59	53.16	48.67	38.00	35.30	34.57	31.56	113.94	48.87	27.91	66.17	19.57	58.46	19.97	27.67	21.16	22.24	23.95	25.19	27.56	30.43

Noise Measurement Field Data

Project:	230th Street Lancaster	**Job Number:**	
Site No.:	ST-2	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	9:41 AM
Location:	230th Street and West Avenue C8 Intersection		
Noise Sources:	Birds, flying insects		
Comments:	**File ING.064**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
30.4	23.3	46.1	78.4

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	79
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	26%

Photo:



Kimley»Horn

Summary

File Name on Meter	lng.064.s
File Name on PC	LxTse_0005586-20231009 094115-lng.064.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-09 09:41:15
Stop	2023-10-09 09:56:15
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-08-31 10:04:48
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	C	Z
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**25.3**	26.0	31.7 dB
Noise Floor	16.1	16.8	22.5 dB

	First	Second	Third
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	30.4	dB
LAE	59.9	dB
EA	0.110	µPa²h
LApeak (max)	2023-10-09 09:48:56	78.4 dB
LASmax	2023-10-09 09:42:18	46.1 dB
LASmin	2023-10-09 09:43:07	23.3 dB
SEA	-99.9	dB

	Exceedance Counts	Duration	
LAS > 85.0 dB	0	0.0	s
LAS > 115.0 dB	0	0.0	s
LApeak > 135.0 dB	0	0.0	s
LApeak > 137.0 dB	0	0.0	s
LApeak > 140.0 dB	0	0.0	s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	30.4	30.4	-99.9	30.4	30.4	-99.9	-99.9	dB

LCeq	50.3	dB
LAeq	30.4	dB
LCeq - LAeq	19.9	dB
LAleq	39.0	dB
LAeq	30.4	dB
LAleq - LAeq	8.6	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	30.4		50.3			
LS(max)	46.1	2023/10/09 9:42:18				
LS(min)	23.3	2023/10/09 9:43:07				
LPeak(max)	78.4	2023/10/09 9:48:56				

Overload Count	0	
Overload Duration	0.0	s
OBA Overload Count	0	
OBA Overload Duration	0.0	s

Statistics

LA 5.00	34.8	dB
LA 10.00	32.2	dB
LA 33.30	28.2	dB
LA 50.00	27.0	dB
LA 66.60	26.0	dB
LA 90.00	24.7	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**	**12.5**	**16.0**	**20.0**	**25.0**	**31.5**	**40.0**	**50.0**	**63.0**	**80.0**	**100**	**125**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3150**	**4000**	**5000**	**6300**	**8000**	**10000**	**12500**	**16000**	**20000**
Direct	2019-10-29 12:18:45	-28.39	2.58	5.73	0.93	0.50	3.86	9.51	0.44	-3.11	1.43	6.00	2.05	-3.57	7.95	14.24	0.02	5.29	13.46	6.91	5.51	6.87	6.62	5.46	4.67	7.03	8.87	9.88	11.23	13.40	11.42	40.36	23.45	16.13	16.83	19.76	18.96	19.66
PRMLxT1L	2023-08-31 10:04:48	-28.76	61.03	61.98	57.52	60.54	55.29	55.45	52.03	56.13	51.43	52.86	50.08	46.64	44.05	42.29	40.24	37.71	31.00	27.38	25.45	24.01	16.34	28.63	114.03	49.13	18.74	66.81	19.33	58.08	19.61	27.07	21.34	22.67	24.08	25.72	28.04	30.76
PRMLxT1L	2023-08-14 09:21:22	-28.80	71.99	60.72	64.53	70.08	63.71	67.13	60.17	57.01	58.38	57.73	57.84	53.97	43.98	41.61	39.62	31.13	30.71	31.16	26.66	22.48	18.46	28.88	113.96	49.06	19.58	66.31	19.22	58.61	19.98	27.20	21.45	22.57	24.00	25.60	27.84	30.65
PRMLxT1L	2023-08-02 08:47:34	-28.78	52.32	54.78	54.24	61.95	67.23	63.90	60.11	66.50	67.18	65.63	67.81	58.63	62.44	62.97	59.45	56.82	56.57	49.11	41.87	44.95	39.11	31.91	114.01	49.20	19.78	66.22	20.13	58.78	19.78	27.29	21.19	22.83	23.65	25.47	27.96	30.70
PRMLxT1L	2023-08-02 08:45:53	-28.81	63.42	57.07	62.26	59.06	64.40	63.93	61.00	59.31	57.80	60.57	63.65	73.88	60.21	63.97	56.12	59.45	55.95	51.94	48.19	48.57	41.68	32.21	113.92	49.05	20.13	66.18	19.50	58.69	19.68	27.63	21.29	22.46	23.81	25.75	27.85	30.58
PRMLxT1L	2023-07-13 12:40:44	-28.75	66.48	69.97	55.31	57.78	62.25	60.41	52.04	59.64	56.55	53.66	55.01	52.17	53.95	53.05	57.87	52.77	50.89	49.51	49.22	47.27	41.20	32.67	114.13	49.64	22.14	66.59	19.40	59.22	19.80	28.04	21.49	22.96	24.29	26.12	28.35	30.63
PRMLxT1L	2023-07-13 09:51:44	-28.90	59.31	60.71	58.62	58.55	59.70	61.21	55.40	52.93	54.87	52.65	50.34	53.26	56.31	49.85	55.07	47.59	42.80	42.90	36.42	37.06	30.68	29.45	113.98	49.32	18.75	66.17	19.46	59.00	19.93	27.68	21.66	22.12	23.76	25.78	27.67	30.87
PRMLxT1L	2023-07-13 09:23:44	-28.90	60.41	60.71	59.50	63.74	60.22	56.73	57.65	53.07	53.21	54.90	55.01	51.50	56.50	51.18	46.63	44.37	45.45	40.66	36.44	31.18	28.12	28.93	113.89	49.22	20.28	65.88	19.60	58.94	19.28	27.57	21.28	22.65	23.74	25.74	27.87	30.71
PRMLxT1L	2023-06-27 08:29:08	-28.80	62.55	58.54	56.17	61.21	48.58	46.35	57.62	53.72	60.54	57.94	56.79	54.45	51.06	47.79	42.98	39.91	36.82	39.43	37.83	26.63	25.08	29.05	114.00	48.90	19.00	66.00	19.76	58.87	20.08	27.50	21.16	22.32	23.59	25.56	28.00	30.62
PRMLxT1L	2023-06-07 08:55:01	-28.82	69.12	55.56	51.67	63.01	51.53	53.14	49.70	57.03	69.87	63.77	60.99	54.17	49.20	52.67	41.66	37.47	38.68	33.57	33.80	31.32	27.01	29.00	113.97	49.08	20.28	66.12	19.52	58.84	19.73	27.36	21.18	22.57	24.05	25.61	28.16	30.80
PRMLxT1L	2023-06-06 10:03:27	-28.81	59.32	45.72	59.12	53.11	55.62	59.35	48.39	51.52	54.26	57.37	58.12	48.84	50.77	48.89	42.29	51.51	46.84	39.38	36.32	29.73	33.08	28.44	113.92	48.80	18.43	65.85	19.67	58.83	19.79	27.84	21.00	22.22	23.71	25.18	27.26	30.41
PRMLxT1L	2023-06-01 09:59:25	-28.74	44.79	51.19	54.83	55.61	55.13	46.54	58.98	55.37	53.40	60.52	61.55	53.00	57.22	54.29	50.43	48.59	53.16	48.67	38.00	35.30	34.57	31.56	113.94	48.87	27.91	66.17	19.57	58.46	19.97	27.67	21.16	22.24	23.95	25.19	27.56	30.43

Noise Measurement Field Data

Project:	230th Street	**Job Number:**	
Site No.:	ST-3	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	10:03 AM
Location:			
Noise Sources:	Birds, flying insects		
Comments:	**File ING.065**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
29.7	23.2	41.8	75.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	81
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	29%

Photo:



Kimley»Horn

Summary

File Name on Meter	lng.065.s
File Name on PC	LxTse_0005586-20231009 100151-lng.065.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-09 10:01:51
Stop	2023-10-09 10:16:51
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-08-31 10:04:48
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	C	Z
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**25.3**	26.0	31.7 dB
Noise Floor	16.1	16.8	22.5 dB

	First	Second	Third
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	29.7 dB		
LAE	59.2 dB		
EA	0.093 µPa²h		
LApeak (max)	2023-10-09 10:05:29	75.7 dB	
LASmax	2023-10-09 10:05:29	41.8 dB	
LASmin	2023-10-09 10:02:47	23.2 dB	
SEA	--- dB		

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	29.7	29.7	29.9	29.7	29.7	29.8	29.9 dB

LCeq	46.6 dB	
LAeq	29.7 dB	
LCeq - LAeq	16.9 dB	
LAleq	34.0 dB	
LAeq	29.7 dB	
LAleq - LAeq	4.3 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	29.7		46.6			
LS(max)	41.8	2023/10/09 10:05:29				
LS(min)	23.2	2023/10/09 10:02:47				
LPeak(max)	75.7	2023/10/09 10:05:29				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LA 5.00	33.7 dB
LA 10.00	32.5 dB
LA 33.30	29.4 dB
LA 50.00	28.3 dB
LA 66.60	27.2 dB
LA 90.00	25.6 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**	**12.5**	**16.0**	**20.0**	**25.0**	**31.5**	**40.0**	**50.0**	**63.0**	**80.0**	**100**	**125**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3150**	**4000**	**5000**	**6300**	**8000**	**10000**	**12500**	**16000**	**20000**
Direct	2019-10-29 12:18:45	-28.39	2.58	5.73	0.93	0.50	3.86	9.51	0.44	-3.11	1.43	6.00	2.05	-3.57	7.95	14.24	0.02	5.29	13.46	6.91	5.51	6.87	6.62	5.46	4.67	7.03	8.87	9.88	11.23	13.40	11.42	40.36	23.45	16.13	16.83	19.76	18.96	19.66
PRMLxT1L	2023-08-31 10:04:48	-28.76	61.03	61.98	57.52	60.54	55.29	55.45	52.03	56.13	51.43	52.86	50.08	46.64	44.05	42.29	40.24	37.71	31.00	27.38	25.45	24.01	16.34	28.63	114.03	49.13	18.74	66.81	19.33	58.08	19.61	27.07	21.34	22.67	24.08	25.72	28.04	30.76
PRMLxT1L	2023-08-14 09:21:22	-28.80	71.99	60.72	64.53	70.08	63.71	67.13	60.17	57.01	58.38	57.73	57.84	53.97	43.98	41.61	39.62	31.13	30.71	31.16	26.66	22.48	18.46	28.88	113.96	49.06	19.58	66.31	19.22	58.61	19.98	27.20	21.45	22.57	24.00	25.60	27.84	30.65
PRMLxT1L	2023-08-02 08:47:34	-28.78	52.32	54.78	54.24	61.95	67.23	63.90	60.11	66.50	67.18	65.63	67.81	58.63	62.44	62.97	59.45	56.82	56.57	49.11	41.87	44.95	39.11	31.91	114.01	49.20	19.78	66.22	20.13	58.78	19.78	27.29	21.19	22.83	23.65	25.47	27.96	30.70
PRMLxT1L	2023-08-02 08:45:53	-28.81	63.42	57.07	62.26	59.06	64.40	63.93	61.00	59.31	57.80	60.57	63.65	73.88	60.21	63.97	56.12	59.45	55.95	51.94	48.19	48.57	41.68	32.21	113.92	49.05	20.13	66.18	19.50	58.69	19.68	27.63	21.29	22.46	23.81	25.75	27.85	30.58
PRMLxT1L	2023-07-13 12:40:44	-28.75	66.48	69.97	55.31	57.78	62.25	60.41	52.04	59.64	56.55	53.66	55.01	52.17	53.95	53.05	57.87	52.77	50.89	49.51	49.22	47.27	41.20	32.67	114.13	49.64	22.14	66.59	19.40	59.22	19.80	28.04	21.49	22.96	24.29	26.12	28.35	30.63
PRMLxT1L	2023-07-13 09:51:44	-28.90	59.31	60.71	58.62	58.55	59.70	61.21	55.40	52.93	54.87	52.65	50.34	53.26	56.31	49.85	55.07	47.59	42.80	42.90	36.42	37.06	30.68	29.45	113.98	49.32	18.75	66.17	19.46	59.00	19.93	27.68	21.66	22.12	23.76	25.78	27.67	30.87
PRMLxT1L	2023-07-13 09:23:44	-28.90	60.41	60.71	59.50	63.74	60.22	56.73	57.65	53.07	53.21	54.90	55.01	51.50	56.50	51.18	46.63	44.37	45.45	40.66	36.44	31.18	28.12	28.93	113.89	49.22	20.28	65.88	19.60	58.94	19.28	27.57	21.28	22.65	23.74	25.74	27.87	30.71
PRMLxT1L	2023-06-27 08:29:08	-28.80	62.55	58.54	56.17	61.21	48.58	46.35	57.62	53.72	60.54	57.94	56.79	54.45	51.06	47.79	42.98	39.91	36.82	39.43	37.83	26.63	25.08	29.05	114.00	48.90	19.00	66.00	19.76	58.87	20.08	27.50	21.16	22.32	23.59	25.56	28.00	30.62
PRMLxT1L	2023-06-07 08:55:01	-28.82	69.12	55.56	51.67	63.01	51.53	53.14	49.70	57.03	69.87	63.77	60.99	54.17	49.20	52.67	41.66	37.47	38.68	33.57	33.80	31.32	27.01	29.00	113.97	49.08	20.28	66.12	19.52	58.84	19.73	27.36	21.18	22.57	24.05	25.61	28.16	30.80
PRMLxT1L	2023-06-06 10:03:27	-28.81	59.32	45.72	59.12	53.11	55.62	59.35	48.39	51.52	54.26	57.37	58.12	48.84	50.77	48.89	42.29	51.51	46.84	39.38	36.32	29.73	33.08	28.44	113.92	48.80	18.43	65.85	19.67	58.83	19.79	27.84	21.00	22.22	23.71	25.18	27.26	30.41
PRMLxT1L	2023-06-01 09:59:25	-28.74	44.79	51.19	54.83	55.61	55.13	46.54	58.98	55.37	53.40	60.52	61.55	53.00	57.22	54.29	50.43	48.59	53.16	48.67	38.00	35.30	34.57	31.56	113.94	48.87	27.91	66.17	19.57	58.46	19.97	27.67	21.16	22.24	23.95	25.19	27.56	30.43

Noise Measurement Field Data

Project:	230th Street Lancaster	**Job Number:**	
Site No.:	ST-4	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	10:33 AM
Location:			
Noise Sources:	Dogs, traffic, wind		
Comments:	**File ING.066**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
48.3	30.4	57.1	83.2

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	83
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	23%

Photo:



Kimley»Horn

Project: RPCA 230th

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Single-Family Residential	718	0	S
2				
3			0	
4			0	
5			0	
6			0	
7			0	

					RECEPTOR	**1**
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
Demolition						
	Dozer	2	40%	82	61.6	57.6
	Excavator	3	40%	81	62.3	58.3
	Concrete Saw	1	20%	90	66.5	59.5
Combined LEQ						**63.3**
Site Preparation						
	Tractor	1	40%	84	60.9	56.9
	Dozer	1	40%	82	58.6	54.6
			#N/A	#N/A	0.0	0.0
Combined LEQ						**58.9**
Grading						
	Excavator	1	40%	81	57.6	53.6
	Dozer	1	40%	82	58.6	54.6
	Pickup Truck	1	40%	75	51.9	47.9
	Front End Loader	1	40%	79	56.0	52.0
	Roller	1	20%	80	56.9	49.9
Combined LEQ						**59.2**
Construction/Installation						
	Crane	1	16%	81	57.5	49.5
	Impact Pile Driver	1	20%	101	78.2	71.2
	All Other Equipment > 5 HP	1	50%	85	61.9	58.8
	Tractor	1	40%	84	60.9	56.9
	Excavator	1	40%	81	57.6	53.6
	Pickup Truck	1	40%	75	51.9	47.9
	Concrete Mixer Truck	1	40%	79	55.7	51.7
	Dozer	1	40%	82	58.6	54.6
	Slurry Trenching Machine	1	50%	80	57.3	54.2
	Front End Loader	1	40%	79	56.0	52.0
Combined LEQ						**71.8**
PV Panel Vendor Trips						
	Tractor	1	40%	84	60.9	56.9
Combined LEQ						**56.9**
Paving						
	Roller	1	20%	80	56.9	49.9
Combined LEQ						**49.9**

Source for Ref. Noise Levels: RCNM, 2005

Project: RPCA 230th Street Solar
BESS

Noise Level Per unit = L1 - 10 LOG (n)

Reference Noise Level (L1):[1]	68	dBA_1
Number of Sources (n):	150	(total number of HVAC units)
Reference Level Per Unit:	46.2	dBA_2

1. Reference Noise Level Source: Kern County Planning and Natural Resources Department, Acoustical Assessment for the AVEP Project, August 5, 2020

The reference noise level is based on simultaneous operation of approximately 150 HVAC units for a facility greater than 600 acres in size with a storage capacity of 1,000 MW.

2. Calculated with the inverse square law:

where: dBA_1 = Reference Noise Level, dBA_2 = Estimated Noise Level

3. Conservatively assumes all units are the same distance from the receptor.

Noise Level Multiplication

$$L_\Sigma = 10 \cdot \log_{10}(n) + L_1$$

Reference Noise Level:[1]	46.2	dBA per unit
Reference Distance:	50	feet
Number of Sources:	4	(total number of HVAC units)
Total Noise Level (at 50 feet):	52.3	dBA
Distance to Receptor:	130	feet
Noise Level at Receptor:[2, 3]	44.0	dBA

1. See above for Reference Level calculation details.

2. Calculated with the inverse square law:

where: dBA_1 = Reference Noise Level, dBA_2 = Estimated Noise Level, d_1 = Reference Distance, and d_2 = Receptor Location Distance

3. Conservatively assumes all units are the same distance from the receptor.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: 230th St Solar Project
Project Number: Operational Trips
Scenario: Horizon Year
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

							Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1			1	20	4	35	0	25.0%	25.0%	36.6	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

Equipment		PPV at 25 feet (in/sec)	Calculated distance (feet) 100	Approximate L_V (VdB) at 25 feet	Calculated distance (feet) 100
Pile Driver (impact)	upper range	1.518	0.1898	112	94
	typical	0.644	0.0805	104	86
Pile Driver (sonic)	upper range	0.734	0.0918	105	87
	typical	0.17	0.0213	93	75
Clam shovel drop (slurry wall)		0.202	0.0253	94	76
Hydromill (slurry wall)	in soil	0.008	0.0010	66	48
	in rock	0.017	0.0021	75	57
Vibratory Roller		0.21	0.0263	94	76
Hoe Ram		0.089	0.0111	87	69
Large bulldozer		0.089	0.0111	87	69
Caisson drilling		0.089	0.0111	87	69
Loaded trucks		0.076	0.0095	86	68
Jackhammer		0.035	0.0044	79	61
Small bulldozer		0.003	0.0004	58	40
Rock Breaker		0.059	0.0074		
		PPV at 50 ft			
Blasting		0.4	0.1414		

$L_v(D) = L_v(25 \text{ feet}) - (30 \times \log_{10}(D/25 \text{ feet}))$

Source: FTA, Noise and Vibration Manual, 2006. Page 12-11.

Notes:

1. Calculated using the following formula:

PPV equip = PPVref x (25/D)1.5

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA Transit Noise and Vibration Impact Assessment Guidelines

D = the distance from the equipment to the receiver

Custom

Equipment	PPV at 25 feet (in/sec)	Calculated distance (feet) 110	Calculated distance (feet)
Large bulldozer	0.089	0.010	
Loaded trucks	0.076	0.008	
Small bulldozer	0.003	0.000	
Vibratory compactor/roller	0.21	0.023	

Appendix K

Tribal Cultural Resources Documentation

Kimley»Horn

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

January 22, 2024

Sarah Brunzell
Fernandeno Tataviam Band of Mission Indians
1019 Second Street
San Fernando, CA 91340

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, a map showing the project location, and our contact information along with the name of our point of contact, pursuant to RPC §21080.3.1(d).

Proposed Project: 230th Street Solar Project in Lake Los Angeles
Project No. PRJ2023-002405
Conditional Use Permit No. RPPL2023005137
Environmental Assessment No. RPPL2023005138

Project Description: To construct, operate and maintain a utility-scale ground-mounted solar energy facilty consisting of five (5) megawatt ("MW") alternating current single-axis tracking photovoltaic modules, battery energy storage system, a water tank, inverter transformer and switchpad, access roads, and seven-foot high fencing with a 10-foot landscape buffer. The facility will interconnect to an existing electrical distribution system located adjacent to the site (see attached project description for details).

Project Location: 49560 230th Street West, Lancaster, CA 93536

APN: 3278025001

Lead Agency Contact Information: Los Angeles County

North County Development Services Section
Department of Regional Planning
320 W. Temple Street, Room 1360
Los Angeles, CA 90012
Tel: (213) 974-6411
Email: schoi@planning.lacounty.gov

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,

Department of Regional Planning
Amy J. Bodek, AICP
Director



Soyeon Choi
Senior Regional Planner
North County Development Services Section

Encl: Map of Project Location, Project Description, Site Plan

SD:SC

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

January 24, 2024

Christina Conley, Cultural Resources Administrator
The Gabrieleno Tongva Indians of California
P.O. Box 941078
Simi Valley, CA 93094

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, a map showing the project location, and our contact information along with the name of our point of contact, pursuant to RPC §21080.3.1(d).

Proposed Project: 230th Street Solar Project in Lake Los Angeles
Project No. PRJ2023-002405
Conditional Use Permit No. RPPL2023005137
Environmental Assessment No. RPPL2023005138

Project Description: To construct, operate and maintain a utility-scale ground-mounted solar energy facilty consisting of five (5) megawatt ("MW") alternating current single-axis tracking photovoltaic modules, battery energy storage system, a water tank, inverter transformer and switchpad, access roads, and seven-foot high fencing with a 10-foot landscape buffer. The facility will interconnect to an existing electrical distribution system located adjacent to the site (see attached project description for details).

Project Location: 49560 230th Street West, Lancaster, CA 93536

APN: 3278025001

Lead Agency Contact Information: Los Angeles County

North County Development Services Section
Department of Regional Planning
320 W. Temple Street, Room 1360
Los Angeles, CA 90012
Tel: (213) 974-6411
Email: schoi@planning.lacounty.gov

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,

Department of Regional Planning
Amy J. Bodek, AICP
Director



Soyeon Choi
Senior Regional Planner
North County Development Services Section

Encl: Map of Project Location, Project Description, Site Plan

SD:SC

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

January 22, 2024

Lee Clauss
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, a map showing the project location, and our contact information along with the name of our point of contact, pursuant to RPC §21080.3.1(d).

Proposed Project: 230th Street Solar Project in Lake Los Angeles
Project No. PRJ2023-002405
Conditional Use Permit No. RPPL2023005137
Environmental Assessment No. RPPL2023005138

Project Description: To construct, operate and maintain a utility-scale ground-mounted solar energy facilty consisting of five (5) megawatt ("MW") alternating current single-axis tracking photovoltaic modules, battery energy storage system, a water tank, inverter transformer and switchpad, access roads, and seven-foot high fencing with a 10-foot landscape buffer. The facility will interconnect to an existing electrical distribution system located adjacent to the site (see attached project description for details).

Project Location: 49560 230th Street West, Lancaster, CA 93536

APN: 3278025001

Lead Agency Contact Information: Los Angeles County

North County Development Services Section
Department of Regional Planning
320 W. Temple Street, Room 1360
Los Angeles, CA 90012
Tel: (213) 974-6411
Email: schoi@planning.lacounty.gov

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,

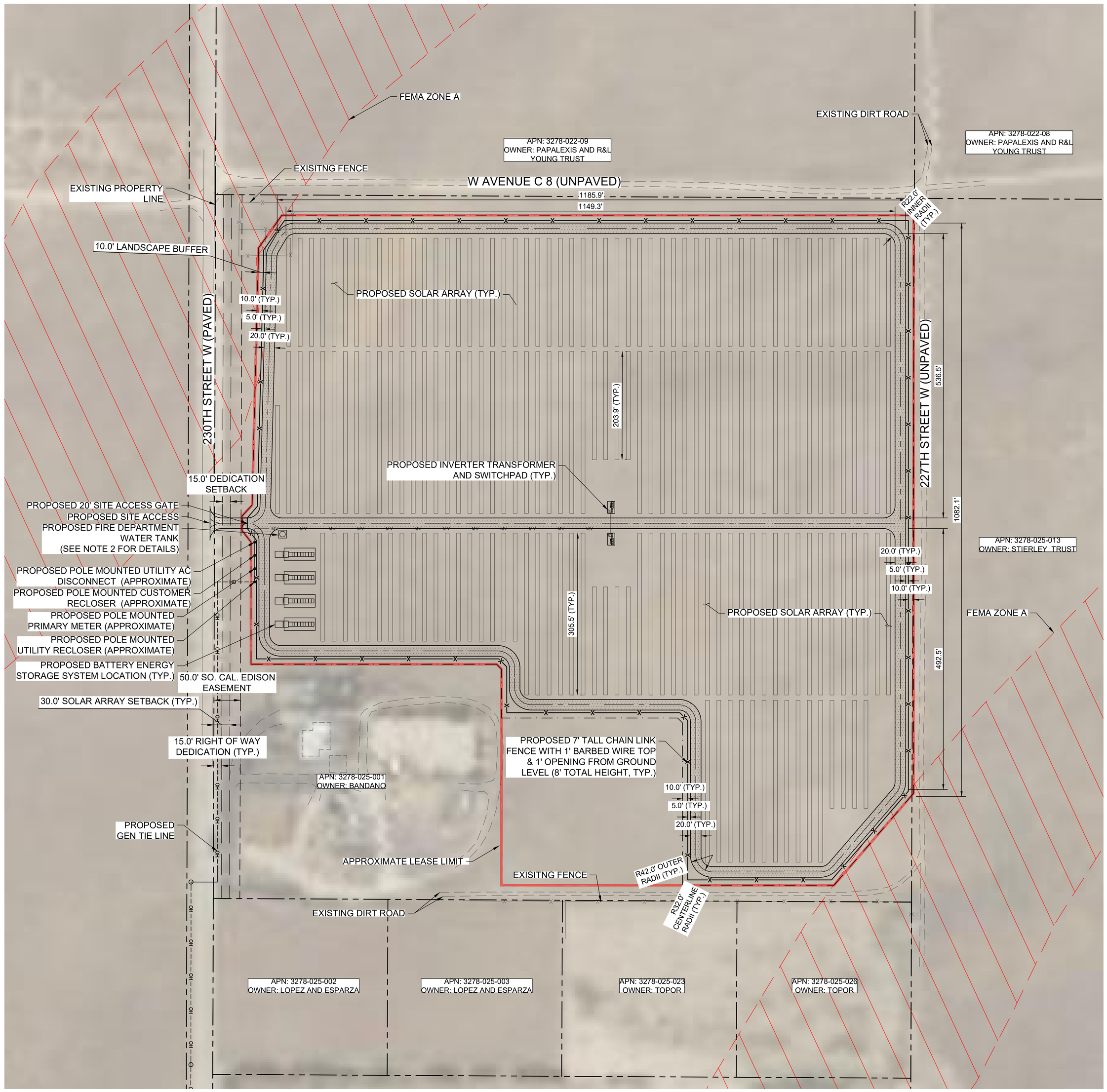
Department of Regional Planning
Amy J. Bodek, AICP
Director



Soyeon Choi
Senior Regional Planner
North County Development Services Section

Encl: Map of Project Location, Project Description, Site Plan

SD:SC



LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 7' TALL CHAIN LINK FENCE WITH 1' BARBED WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT

SITE INFORMATION

PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 065043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

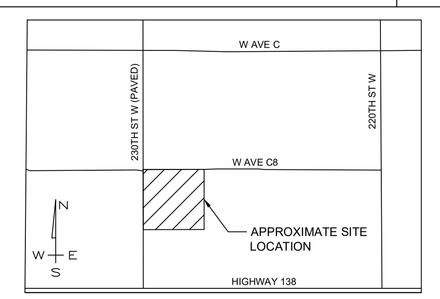
SURVEY NOTE

DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED MAY 31, 2022. ISSUING OFFICE: 7676 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108. ISSUING AGENT: FRANK GREEN. TITLE ORDER NUMBER: 2200030800. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS: A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. TRACKER HEIGHT MAXIMUM IS 10 FEET.
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	40+	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y
TRACKER QTY.			
DC SYSTEM SIZE		6,415.20 kW	
# OF 81 MODULE TRACKER ROWS		90	
# OF 54 MODULE TRACKER ROWS		85	



VICINITY MAP
NTS

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT	099997002
DATE	11/2/2023
SCALE	AS SHOWN
DESIGNED BY	BC
DRAWN BY	BC
CHECKED BY	CY

CONCEPTUAL SITE PLAN

230TH STREET SOLAR

PREPARED FOR
RPCA SOLAR 12, LLC

LOS ANGELES COUNTY, CALIFORNIA

SHEET NUMBER
C1.0

Plotted By: Crump, Brenna Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN November 02, 2023 07:47:05am K:\LDT_ENERGY\RPCA_Ground-mount\099997002_RPCA_230th St_Exhibit E\06_CAD_PlanSheets\CX.X - SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Renewable Properties, LLC
879 Sanchez Street
San Francisco, CA 94114
www.renewprop.com

June 28, 2023

Soyeon Choi
Los Angeles Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

RE: 230th Street Solar – Project Narrative – Application for Conditional Use Permit

Dear Soyeon:

On behalf of RPCA Solar 12, LLC, we submit this letter as a description of the 230th Street Solar + Battery Energy Storage (BESS) Project ("Project"). Renewable Properties held a Pre-Application Meeting with the County of Los Angeles on March 14, 2023 and the Project was assigned the following number: PRJ2022-004571. The combined solar plus BESS facility will be located on approximately 31-acres of a 40-acre parcel (APN: 3278-025-001). The parcel is located east of the community of Neenach in unincorporated Los Angeles County at 49560 230th Street W northwest of Lancaster. The proposed parcel is comprised of undeveloped open space except for a rural residence / single-family home, located on the southwest corner of the project parcel. RPCA Solar 12, LLC, via its affiliate Wildcat Renewables, LLC, has entered into a long-term lease agreement with the property owners, Amilcar Ruben Badano and Debbie Badano to facilitate the development and long-term operation of the Project.

The solar Project will generate up to a total of 4.99 megawatts (MW) alternating current (AC) (7.5 MW direct current (DC)) of clean, reliable solar energy when complete. The BESS will charge and discharge a total of 4.99 megawatts (MW) alternating current (AC) of energy for up to a four-hour duration. The Project will interconnect to Southern California Edison's (SCE) pre-existing electrical distribution system located adjacent to the site. The power generated from this facility will be sold to SCE through a long-term Power Purchase Agreement (PPA). Additionally, the Project will be equipped with energy storage technology that will allow onsite renewable energy generation to be stored and dispatched onto the grid when needed.

The subject parcel is located in the "A-2-2 District" within the Antelope Valley West General Plan area. The Project meets the County definition of a "utility scale solar facility," and has been designed to comply with Title 22, Chapter 140.510 of the Los Angeles County Code with one exception. The Project will apply for a variance to Subsection (E)(3)(c)(vii) of the Renewable Energy ordinance which outlies landscape buffer requirements.

The Project will utilize approximately 12,555 solar modules and 40 string inverters to convert the sun's energy into usable, AC power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the array will be no more than 15-feet tall above ground surface.

Locally-sited energy storage systems, like the Project, improve the resiliency of the regional energy grid and increase the utilization of renewable energy resources by storing energy generated by the solar project during the day and discharging during peak demand hours.

We are excited to work with the County to advance the Project through the local review and approval process. Please let us know if you have any questions about our application. We look forward to scheduling our review meeting soon.

Sincerely,

RENEWABLE PROPERTIES



Stephanie Loucas
Chief Development Officer
415-710-3834

Appendix L

Responses to Comments

Kimley»Horn

1.0 INTRODUCTION TO RESPONSE TO COMMENTS

This Final Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code [PRC] Section 21000 et seq.) and CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et seq.). The Final IS/MND incorporates, by reference, the Draft IS/MND (State Clearinghouse No. 2025050245) prepared by Los Angeles County (County) for the 230th Street Solar Project (Project).

This Final IS/MND for the Project presents Sections 1 through Section 3:

- Section 1: Introduction to Responses to Comments
- Section 2: A list of persons, organizations, and/or public agencies commenting on the Draft IS/MND
- Section 3: Written responses to each comment identified in Section 2
- Section 4: Changes that were made to clarify, correct, or supplement information provided in the Public Review IS/MND

This Final IS/MND also includes changes that were made to clarify, correct, or supplement information provided in the Public Review IS/MND. Thes changes and additions were made to respond to comments received during the public review period. The changes provided do not add significant new information or require substantial revisions that would require recirculation of the IS/MND. Changes to the IS/MND are indicated below under the respective EIR section heading, page number, and paragraph. Paragraph reference is to the first full paragraph on the page. Deletions are shown with ~~strikethrough~~ and additions are shown with <u>double underline</u>.

1.1 CEQA Process

The Notice of Completion of the Draft IS/MND was posted on May 5, 2025, with the County Clerk in Los Angeles. The Draft IS/MND was circulated for a 30-day public review until June 9, 2025. The Draft IS/MND was circulated to federal, State, and local agencies and interested parties requesting a copy of the Draft IS/MND. Copies of the Draft IS/MND were made available at the following locations:

- County Website: https://lacdrp.legistar.com/LegislationDetail.aspx?ID=7372020&GUID=7F0ADB40-5FE8-4E83-987B-D8978B16D323&Options=ID|Text|&Search=25-109
- County of Los Angeles Building and Safety Antelope Valley Field Office: 335 E Avenue K-6 #A, Lancaster, CA 93535

1.2 Notice of Determination

Pursuant to CEQA Guidelines Section 15094, the City will file a Notice of Determination (NOD) with the Office of Planning and Research and Los Angeles County Clerk within five working days of Project approval.

2.0 COMMENT LETTERS

CEQA Guidelines Section 15074(b) states that: "Prior to approving a project, the decision making body of the lead agency shall consider the proposed negative declaration or mitigated negative declaration together with any comments received during the public review process." Although the CEQA Guidelines do not require a lead agency to prepare written responses to comments received, the County has elected to prepare the following written responses with the intent of providing a comprehensive and meaningful evaluation of the proposed Project. This section of the IS/MND therefore provides responses to each of the comments on the Public Review IS/MND received during the public comment period. Table 2-1, Comments Received on the 230th Street Solar Project Public Review IS/MND, provides a list of the comment letters received and the corresponding issues that were raised.

The individual letters received during the public comment period, and as listed in Table 2-1, are each assigned a number in chronological order, as indicated in Table 2-1. Each comment that requires a response is also assigned a number. For example, the first comment letter received was from the Peterson Ranch Mitigation Bank; therefore, this is Letter 1. The first comment in the letter is therefore labeled Comment 1-1 and the responses to each comment are correspondingly numbered, (i.e., Response 1-1). As required by the CEQA Guidelines Section 15088(c), the focus of the responses to comments is on "the disposition of significant environmental issues raised." Comments should focus on the proposed finding that the project (including any proposed mitigation measures) will not have a significant environmental effect. (CEQA Guidelines § 15204(a).) Therefore, detailed responses are not provided for comments that do not relate to environmental issues.

Table 2-1: Comments Received on the 230th Street Solar Project Public Review IS/MND

Letter No.	Name	Date Received
1	Nathan Bello HabitatSource	May 9, 2025
2	Antelope Valley Air Quality Management District Barbara Lods, BJL/SS 2551 West Avenue H Lancaster, CA 93536	May 12, 2025
3	Edward L. LaRue, Jr., M.S. Ecosystems Advisory Committee, Chairperson Mohave Ground Squirrel Conservation Council P.O. Box 1660 Wrightwood, CA 92397	12/12/2023
4	Sophia Markowska Senior California Representative Defenders of Wildlife P.O. Box 401 Folsom, CA 95763	12/13/2023

Letter No.	Name	Date Received
5	Alisa Ellsworth Environmental Program Manager State of California – Natural Resources Agency Department of Fish and Wildlife Inland Deserts Region 3602 Inland Empire Boulevard, Suite C-220 Ontario, CA 91765	12/13/2023

3.0 RESPONSES TO COMMENTS

Responses to individual comments are included herein.

From: Nathan Bello <bello@habitatsource.com>
Sent: Friday, May 9, 2025 5:39 PM
To: Soyeon Choi <schoi@planning.lacounty.gov>
Subject: 230th Street Solar

CAUTION: External Email. Proceed Responsibly.

Dear Soyeon Choi,

Thank you for the opportunity to review the Initial Study/Mitigated Negative Declaration (IS/MND) for the 230th Street Solar Project. My name is Nathan Bello, and I manage and support the Petersen Ranch Mitigation Bank, which was established to provide compensatory mitigation for projects in Los Angeles County impacting a range of biological resources, including natural communities and native vegetation.

The Petersen Ranch Mitigation Bank offers a variety of credits approved by the California Department of Fish and Wildlife (CDFW) to meet CEQA mitigation requirements. While these credits are categorized by vegetation community, they also represent habitat that supports a suite of native plant and wildlife species. For example, the grassland and chaparral credit areas at Petersen Ranch are known to support habitat for species analyzed in the IS/MND, including Swainson's hawk, Crotch's bumble bee, burrowing owl, and American badger.

I respectfully suggest that the mitigation measure for Crotch's bumble bee (MM Bio-9) be revised to allow for the use of credits from approved mitigation banks. Incorporating this flexibility is consistent with CEQA's requirements for feasible, enforceable, and effective mitigation (CEQA Guidelines §§ 15126.4(a)(1)(B), 15041(a)) and with CEQA's mandate for consistency with other environmental laws and policies (§ 15021). The use of mitigation banks also aligns with state and federal policies that establish a preference for mitigation that is permanent, professionally managed, and ecologically effective. Approved mitigation banks ensure that conservation outcomes are both certain to occur and enforceable, meeting CEQA's standards for mitigation certainty and long-term success.

An example of a mitigation measure structure that provides this flexibility is included below:

"Any floral resources associated with Crotch's bumble bee (i.e., specific plant species known to be used for foraging) that will be removed or damaged by the Project shall be replaced ***on-site, off-site, or mitigated through the purchase of credits from the***

Petersen Ranch Mitigation Bank or another CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, *at a 1:1 ratio or as otherwise determined through any applicable Incidental Take Permit (ITP) process. Floral resources* ***mitigated through on-site or off-site replacement*** *shall be replaced as close to their original location as feasible after Project construction. These resources shall be maintained for the life of the Project and replanted or managed as needed to ensure habitat preservation."*

If it would be helpful, I would be happy to meet with you and your team to provide additional information about the Petersen Ranch Mitigation Bank and its relevance to this project.

Thank you for your consideration.

Sincerely,

Nathan Bello

HabitatSource

bello@habitatsource.com

916.508.4993

Letter 1

HabitatSource
Nathan Bello
bello@habitatsource.com
916.508.4993

Comment 1-1

Thank you for the opportunity to review the Initial Study/Mitigated Negative Declaration (IS/MND) for the 230th Street Solar Project. My name is Nathan Bello, and I manage and support the Petersen Ranch Mitigation Bank, which was established to provide compensatory mitigation for projects in Los Angeles County impacting a range of biological resources, including natural communities and native vegetation.

The Petersen Ranch Mitigation Bank offers a variety of credits approved by the California Department of Fish and Wildlife (CDFW) to meet CEQA mitigation requirements. While these credits are categorized by vegetation community, they also represent habitat that supports a suite of native plant and wildlife species. For example, the grassland and chaparral credit areas at Petersen Ranch are known to support habitat for species analyzed in the IS/MND, including Swainson's hawk, Crotch's bumble bee, burrowing owl, and American badger.

Response 1-1

This comment provides an introduction to the comment letter and provides an overview of the commenter's organization. As this comment does not raise any specific issue to the content and adequacy of the IS/MND, no further response is warranted.

Comment 1-2

I respectfully suggest that the mitigation measure for Crotch's bumble bee (MM Bio-9) be revised to allow for the use of credits from approved mitigation banks. Incorporating this flexibility is consistent with CEQA's requirements for feasible, enforceable, and effective mitigation (CEQA Guidelines §§ 15126.4(a)(1)(B), 15041(a)) and with CEQA's mandate for consistency with other environmental laws and policies (§ 15021). The use of mitigation banks also aligns with state and federal policies that establish a preference for mitigation that is permanent, professionally managed, and ecologically effective. Approved mitigation banks ensure that conservation outcomes are both certain to occur and enforceable, meeting CEQA's standards for mitigation certainty and long-term success.

An example of a mitigation measure structure that provides this flexibility is included below:

"Any floral resources associated with Crotch's bumble bee (i.e., specific plant species known to be used for foraging) that will be removed or damaged by the Project shall be replaced ***on-site, off-site, or mitigated through the purchase of credits from the Petersen Ranch Mitigation Bank or another CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee,*** at a 1:1 ratio or as otherwise determined through any applicable Incidental Take Permit (ITP) process. Floral resources ***mitigated through on-site or off-site replacement*** shall be replaced as close to their original location as feasible after Project construction. These resources shall be

maintained for the life of the Project and replanted or managed as needed to ensure habitat preservation."

If it would be helpful, I would be happy to meet with you and your team to provide additional information about the Petersen Ranch Mitigation Bank and its relevance to the Project.

Response 1-2

This comment suggests that Mitigation Measure (MM) BIO-9 be revised to allow for the use of credits from approved mitigation banks. Revisions have been made to MM BIO-9 in response to this comment and also to the CDFW comment letter. MM BIO-9 is revised as follows (*see strikethrough and double underline)* and is reflected in the Mitigation Monitoring and Reporting Program (MMRP):

MM BIO-9 **Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform ~~P~~protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).
- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

Antelope Valley Air Quality Management District
2551 West Avenue H Lancaster, CA 93536
661-723-8070
www.avaqmd.ca.gov
Barbara Lods, Executive Director

In reply, please refer to AV0525/059

May 12, 2025

Soyeon Choi
Los Angeles County
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Project: Project No. PRJ2023-002405-(5), Conditional Use Permit No. RPPL2023005137, Environmental Assessment No. RPPL2023005138, and State Clearinghouse Number 2025050245

To Whom It May Concern:

The Antelope Valley Air Quality Management District (District) has received the request to review **PRJ2023-002405-(5), Conditional Use Permit No. RPPL2023005137, Environmental Assessment No. RPPL2023005138, and State Clearinghouse Number 2025050245** requesting to construct, operate, and maintain a 4.99-megawatt ground-mounted utility-scale solar energy facility and up to 4.99-megawatt of energy storage capacity. This project site is located on ~40 acres in the A-2-2 (Heavy Agricultural) Zone at 49560 230th Street West in the City of Lancaster within the Antelope Valley Planning Area (unincorporated) (APN: 3278-025-001).

Prior to the start of any grading/construction activity, the District requires the proposed project to comply with the following:

- Project Information Form
- Rule 302-Construction Excavation Fee
- Dust Control Plan (DCP) with Signage
- Rule 219-Permitting
- CARB Equipment
- Rule 1403-Asbestos/Demolition
- Other: AO Renewable Energy DCP

Thank you for the opportunity to review this planning document. If you have any questions/concerns regarding the information presented in this letter, please contact me at (661) 723-8070 ext. 23 or blods@avaqmd.ca.gov.

Sincerely,

Barbara Lods

Barbara Lods
BJL/SS
Sent via Email

Letter 2

Antelope Valley Air Quality Management District
Barbara Lods, BJL/SS
2551 West Avenue H
Lancaster, CA 93536

Comment 2-1

The Antelope Valley Air Quality Management District (District) has received the request to review **PRJ2023-002405-(5), Conditional Use Permit No. RPPL2023005137, Environmental Assessment No. RPPL2023005138**, **and State Clearinghouse Number 2025050245** requesting to construct, operate, and maintain a 4.99-megawatt ground-mounted utility-scale solar energy facility and up to 4.99-megawatt of energy storage capacity. This project site is located on ~40 acres in the A-2-2 (Heavy Agricultural) Zone at 49560 230th Street West in the City of Lancaster within the Antelope Valley Planning Area (unincorporated) (APN: 3278-025-001).

Response 2-1

This comment acknowledges that the District received the City's request to review the Project. This comment provides a summary of the Project Description as presented in the IS/MND. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 2-2

Prior to the start of any grading/construction activity, the District requires the proposed project to comply with the following:

- Project Information Form
- Rule 302-Construction Excavation Fee
- Dust Control Plan (DCP) with Signage
- Rule 219-Permitting
- CARB Equipment
- Rule 1403-Asbestos/Demolition
- Other: AO Renewable Energy DCP

Thank you for the opportunity to review this planning document. If you have any questions/concerns regarding the information presented in this letter, please contact me at (661) 723-8070 ext. 23 or blods@avaqmd.ca.gov.

Response 2-2

This comment provides information about various rules and regulations which may apply to the Project prior to any grading/construction activity. As discussed on page 22 of the IS/MND, the Project would be required to comply with all applicable District Rules and Regulations. The Project would be required to establish a Fugitive Dust Control Plan, as specified in the Los Angeles County Code of Ordinances Section 22.140.510 based on the requirements of the District's Rule 403 and the District's CEQA Guideline Fugitive Dust Control Measures. Furthermore, all trucks

used during Project construction would be required to comply with all CARB regulations. Therefore, the Project would comply with applicable regulations listed in the comment, and no further response is warranted.

From: Elizabeth Topor
To: Soyeon Choi
Subject: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513
Date: Thursday, May 29, 2025 8:52:23 AM

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

My name is Elizabeth Topor. I am e-mailing to voice my concerns of above said project.

I own parcel #s 3278 025 023; 3278 025 026 (both of which the fence lines adjoin the proposed project); and parcel 3278 025 035 (my home on 10 acres adjoining the other 2 parcels). I have lived here since Dec. 2019 (25 yrs).

My concerns are the following, among others:

Foster Mom: Being a foster mom with Trinity Youth Services I am concerned with employees of solar project for the safety of children including my 4 adopted ones . My home is a favorite for soothing children, calming those with hyperactivity and behavior issues. They thrive out here in this peaceful environment. Many behavioral health/therapists have seen the wonders this life/environment has on the children. The children love seeing nature and being around so many different animals. Life here is definitely a slower paced one. The social workers love coming out here. They are always amazed at the beauty, the fresh air and the peacefulness. My direct social worker (Denisse Ireland) loves to come sit outside with the children on a picnic table. They deal with many tough issues and busy cities, so coming here is like a getaway for a short time.

Fires: After the Apollo Fire here which destroyed 2 homes including 40+ animals, and encircled my property and both neighbors, it is my concern for smoking employees and extreme fire hazard in this area. This fire burned up to my front fence and around 2 sides, coming in my back pasture where several pasture horses reside, taking out fences and gates, all of which had to be replaced.

Horses: Multiple horses have access to the fence line between me and proposed project. My concern is for workers petting, feeding, "messing" with the horses, getting injured by one of the horses. A major concern is choke, a condition where if fed an apple or core, carrots, and/or watermelon rinds among other items they run the risk of choke, a serious condition where the food is stuck making the horse unable to swallow or drink. Often times a veterinarian (which chances of getting a vet out are very rare due to our location) cannot relieve such a choke due to the food source; therefore, having to euthanize the horse.

Dirt/sand blowing: Living in the Antelope Valley wind is not unusual, but out here it is unlikely

to have any dust blowing, as is common on the very dry east side of the valley) a reason why I moved west 25 + years ago). This project is going to create lots of dust very near to my home and horses. I am an asthma sufferer so this is of concern to me as it can exacerbate my asthma.

Traffic: The dirt road (227th) on the east side of my pasture, if used for solar project traffic/workers will also create a lot of dust, noise and safety concern going back and forth on this little road we out here use to ride horses on, walk, and bike ride with children. Walking, riding, biking out here is very peaceful, soothing, and good for mind and body. It won't be if there is the danger and constant traffic back and forth on this dirt road.

Noise: It is very peaceful here with little noise (except the wind LOL). The neighbors are quiet. The air is fresh and clear. This project will be quite noisy with workers and all that goes along with it. Our peaceful life in the country will feel like we moved to the city. We are zoned heavy agriculture to grow things on like alfalfa hay, raise livestock on, not for metal solar panels.. This is another reason why people come to live out here, a way to get away from busy cities and noise.

Family and animal life: People move out here to get away from the hustle and bustle of a city, to have room to roam and not feel "boxed in", to raise families in a peaceful, healthy environment, and to have animals, including livestock. It is a wonderful environment for them to romp and play, to flourish. If we wanted city life, we would life in a city.

Lights and noise: Another great reason to live in the country is for the clear skies, the starry nights, the peace and quiet for sleeping, and no lights!. Lights and any night activity will disrupt this. Sleeping outside in the summer is a big treat for kids and parents alike. It is like going camping, but in your own backyard.

Reflection of panels: The reflection from the solar panels will at different times of the day put off a very unbearable glare, which shine into a person's eyes, the trainer/rider of a horse, and the horse itself, making this an issue for safety, not to mention if you know how that glare affects your eyes. Being a foster mom, I have had social workers ask, "what is all that water way out there"? We reply, "solar panels".

Views: This is an area where homes are somewhat spread out with BEAUTIFUL views of the mountains to the south, west, and especially the north. This project will directly impact this. The view in the winter of the northern mountains with snow on them is breathtaking! It is a scene for picture taking. It is something you long to see and never get tired of.

Wildlife: Living here in Neenach we get to see a lot of wildlife (which we love to feed). Here at my very own house the California Quail abounds, with babies born every year, Blue Jays,

Orioles, Red Robins, hawks, vultures, owls and we have also had the pleasure of a returning Roadrunner and Crane, an occasional duck and homing pigeon, along with the usual country critters of squirrels and rabbits (which we also feed), King snakes, Gopher snakes, Diamondback rattlers, and multiple Mojave Green rattlesnakes (which concerns me that they will be disrupted and head to my pastures). More recently we had two Cow Egrets come and visit the west neighbor's cows LOL. What a sight to see these birds fly over your head.

Please carefully consider my concerns and comments. Ruben Badano inherited the bare land from his father who passed away. There are many other things he could use it for, like agriculture, growing hay, which they have done in years past, raising livestock (they even have cattle pens, which his father raised some cattle in), subdividing and/or selling it off., or hey, just keep it the way it is because he has lived out here on that land for many years. I love my neighbors, we are brothers and sisters in Christ, but I strongly oppose this project because it will forever change the quality and reason for life out here in the country. Please keep solar far away from us country folks who moved here to be away from such things. Keep this a haven of peaceful beauty and nature for kids to thrive in. There are so many areas of open land where no people live or even want to live, where putting solar would not negatively impact their lives.

Thank you,

Sincerely,

Elizabeth Topor

Letter 3

Elizabeth Topor

Comment 3-1

My name is Elizabeth Topor. I am e-mailing to voice my concerns of above said project.

I own parcel #s 3278 025 023; 3278 025 026 (both of which the fence lines adjoin the proposed project); and parcel 3278 025 035 (my home on 10 acres adjoining the other 2 parcels). I have lived here since Dec. 2019 (25 yrs).

My concerns are the following, among others:

Response 3-1

This comment provides information about the commenter and introduces the remainder of the comment letter. As this comment does not raise any specific issue with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-2

Foster Mom: Being a foster mom with Trinity Youth Services I am concerned with employees of solar project for the safety of children including my 4 adopted ones. My home is a favorite for soothing children, calming those with hyperactivity and behavior issues. They thrive out here in this peaceful environment. Many behavioral health/therapists have seen the wonders this life/environment has on the children. The children love seeing nature and being around so many different animals. Life here is definitely a slower paced one. The social workers love coming out here. They are always amazed at the beauty, the fresh air and the peacefulness. my direct social worker (Denisse Ireland) loves to come sit outside with the children on a picnic table. They deal with many tough issues and busy cities, so coming here is like a getaway for a short time.

Response 3-2

This comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-3

Fires: After the Apollo Fire here which destroyed 2 homes including 40+ animals, and encircled my property and both neighbors, it is my concern for smoking employees and extreme fire hazard in this area. This fire burned up to my front fence and around 2 sides, coming in my back pasture where several pasture horses reside, taking out fences and gates, all of which had to be replaced.

Response 3-3

This comment raises concerns related to a historic fire. As discussed on page 4 of the IS/MND, the Project's battery energy storage system (BESS) component would include safety measures including active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression ventilation. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Furthermore, access roads to the Project Site would be wide enough to

accommodate emergency vehicles and would be designed to comply with County building and fire department standards. As this comment does not raise any specific issues with respect to the content and adequacy of the Draft IS/MND, no further response is warranted.

Comment 3-4

Horses: Multiple horses have access to the fence line between me and proposed project. My concern is for workers petting, feeding, "messing" with the horses, getting injured by one of the horses. A major concern is choke, a condition where if fed an apple or core, carrots, and/or watermelon rinds among other items they run the risk of choke, a serious condition where the food is stuck making the horse unable to swallow or drink. Often times a veterinarian (which chances of getting a vet out are very rare due to our location) cannot relieve such a choke due to the food source; therefore, having to euthanize the horse.

Response 3-4

This comment provides information about the presence of horses near the Project Site and potential safety concerns regarding the horses. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-5

Dirt/sand blowing: Living in the Antelope Valley wind is not unusual, but out here it is unlikely to have any dust blowing, as is common on the very dry east side of the valley) a reason why I moved west 25 + years ago). This project is going to create lots of dust very near to my home and horses. I am an asthma sufferer so this is of concern to me as it can exacerbate my asthma.

Response 3-5

This comment raises concerns over dust created by the Project. As discussed on page 8 of the IS/MND, non-potable water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Additionally, as stated on page 22 of the IS/MND, the Project would be required to comply with AVAQMD Rule 403, which requires periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions. Additionally, Los Angeles County Code of Ordinances Section 22.140.510 requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403 and AVAQMD CEQA Guideline Fugitive Dust Control Measures. Therefore, the Project would be required to comply with various regulations that would reduce the potential for dust created by the Project.

Comment 3-6

Traffic: The dirt road (227th) on the east side of my pasture, if used for solar project traffic/workers will also create a lot of dust, noise and safety concern going back and forth on this little road we out here use to ride horses on, walk, and bike ride with children. Walking, riding, biking out here is very peaceful, soothing, and good for mind and body. It won't be if there is the danger and constant traffic back and forth on this dirt road.

Response 3-6

This comment asserts that traffic from workers would create dust, noise, and safety concerns on 227th Street. As stated on page 9 of the IS/MND, local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W. Therefore, construction workers and maintenance workers during Project operation would not utilize 227th Street to access the Project Site. See Response 3-5 regarding dust. See Response 3-7 regarding noise.

Comment 3-7

Noise: It is very peaceful here with little noise (except the wind LOL). The neighbors are quiet. The air is fresh and clear. This project will be quite noisy with workers and all that goes along with it. Our peaceful life in the country will feel like we moved to the city. We are zoned heavy agriculture to grow things on like alfalfa hay, raise livestock on, not for metal solar panels. This is another reason why people come to live out here, a way to get away from busy cities and noise.

Response 3-7

This comment raises concerns about noise impacts from the Project. As discussed on page 77 through 83, noise impacts during Project construction (e.g., from construction equipment and trucks) and operation (e.g., from worker traffic, photovoltaic [PV] systems, transformers, and BESS) would be less than significant. Construction noise would be temporary, lasting only during the approximately seven months anticipated for construction. Furthermore, operational noise would not exceed the County's daytime or nighttime noise standards and impacts would be less than significant. While the Project Site is zoned Heavy Agricultural (A-2-2), pursuant to Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities is a permitted use with an approved CUP in the A-2 zone.

Comment 3-8

Family and animal life: People move out here to get away from the hustle and bustle of a city, to have room to roam and not feel "boxed in", to raise families in a peaceful, healthy environment, and to have animals, including livestock. It is a wonderful environment for them to romp and play, to flourish. If we wanted city life, we would life *[sic]* in a city.

Response 3-8

As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-9

Lights and noise: Another great reason to live in the country is for the clear skies, the starry nights, the peace and quiet for sleeping, and no lights!. *[sic]* Lights and any night activity will disrupt this. Sleeping outside in the summer is a big treat for kids and parents alike. It is like going camping, but in your own backyard.

Response 3-9

This comment raises concerns related to lights and noise. As discussed on page 17 of the IS/MND, Project construction and operation would not create significant impacts related to light and glare. During Project construction, lights would be shielded and turned downward away from the sky,

and no light spillage would occur. Daytime glare could potentially occur during construction; however, it would be short-term and temporary in nature. Operations of the Project would introduce new sources of light and glare that are typically associated with solar facilities. The Project would be required to comply with the County's Rural Outdoor Lighting District Ordinance, which requires that only the minimum amount of lighting is used, lights are to be shielded and directed downwards and away from the sky, and no light spillage occurs. Kimley-Horn prepared a Solar Glare and Glint Analysis Report for the Project (see Appendix A of the IS/MND). Based on the analysis provided therein, the potential glare receptors located in proximity to the Project are motorists from 230th Street W, motorists from State Route (SR) 138, and single-family homes situated around the Project Site. As determined from the analysis, there would be low glare potential from four of the observation points, but no glare expected to impact motorists. Therefore, the Project would not create a new source of substantial glare that would adversely affect day or nighttime views in the area.

Comment 3-10

Reflection of panels: The reflection from the solar panels will at different times of the day put off a very unbearable glare, which shine into a person's eyes, the trainer/rider of a horse, and the horse itself, making this an issue for safety, not to mention if you know how that glare affects your eyes. Being a foster mom, I have had social workers ask, "what is all that water way out there"? We reply, "solar panels".

Response 3-10

As discussed in Response 3-9, the Solar Glare and Glint Analysis determined that there would be low glare potential at surrounding receptors and that glare would not impact motorists. As further provided in the IS/MND, the PV panels would not be expected to cause significant glare as the panels will absorb sunlight during daylight hours and therefore, produce minimal reflectivity. PV solar panels are designed to be highly absorptive of light that strikes the panel surfaces, generating electricity rather than reflecting light. Single-axis tracker systems are designed to track the sun to maximize panel exposure to the sun, which would direct the majority of any reflected light back toward the sun in a skyward direction. PV panels have a lower index of refraction/reflectivity than common sources of glare in residential environments. The glare and reflectance levels from a given PV system are lower than the glare and reflectance levels of steel, snow, standard glass, plexiglass, and smooth water. Single-axis tracker systems would employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise. Therefore, the solar PV panels would not create a new source of substantial glare that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

Comment 3-11

Views: This is an area where homes are somewhat spread out with BEAUTIFUL views of the mountains to the south, west, and especially the north. This project will directly impact this. The

view in the winter of the northern mountains with snow on them is breathtaking! It is scene for picture taking. It is something you long to see and never get tired of.

Response 3-11

This comment raises concerns related to scenic vistas. As discussed on page 14 through 15 of the IS/MND, the Project Site and surrounding public roads have views of mountain foothills and ridgelines to the north, west, and south. However, the Project Site is also surrounded by existing solar projects, with mountain foothills and ridgelines in the background. As such, construction and operation of the Project would be consistent with the visual character of the Project area, which is already dominated by renewable energy facilities. Further, the introduction of Project components would not substantially obstruct or interrupt views of the surrounding mountain foothills and ridgelines which, due to their height, would remain visually prominent. Less than significant impacts on scenic vistas are expected to occur.

Comment 3-12

Wildlife: Living here in Neenach we get to see a lot of wildlife (which we love to feed). Here at my very own house the California Quail abounds, with babies born every year, Blue Jays, Orioles, Red Robins, hawks, vultures, owls and we have also had the pleasure of a returning Roadrunner and Crane, an occasional duck and homing pigeon, along with the usual country critters of squirrels and rabbits (which we also feed), King snakes, Gopher snakes, Diamondback rattlers, and multiple Mojave Green rattlesnakes (which concerns me that they will be disrupted and head to my pastures). More recently we had two Cow Egrets come and visit the west neighbor's cows LOL. What a sight to see these birds fly over your head.

Response 3-12

This comment provides information related to wildlife near the Project Site. As discussed on page 33 through 43 of the IS/MND, the Project would be required to implement mitigation measures **MM BIO 1** through **MM BIO 11**, which would reduce impacts to special-status species to less than significant. Furthermore, the Project Site has not been designated as critical habitat by the United States Fish and Wildlife Service (USFWS), nor has it been set aside for conservation by any other entity. Although the Project Site may provide low-quality habitat for some species, the Project is subject to robust mitigation measures designed to avoid and minimize impacts to these species. Because of this, the Project would not result in significant impacts to special-status species or their habitat.

Comment 3-13

Please carefully consider my concerns and comments. Ruben Badano inherited the bare land from his father who passed away. There are many other things he could use it for, like agriculture, growing hay, which they have done in years past, raising livestock (they even have cattle pens, which his father raised some cattle in), subdividing and/or selling it off., or hey, just keep it the way it is because he has lived out here on that land for many years. I love my neighbors, we are brothers and sisters in Christ, but I strongly oppose this project because it will forever change the quality and reason for life out here in the country. Please keep solar far away from us country folks who moved here to be away from such things. Keep this a haven of peaceful beauty and

nature for kids to thrive in. There are so many areas of open and where no people live or even want to live, where putting solar would not negatively impact their lives.

Response 3-13

This comment provides a conclusion to the comment letter. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Ryan Nyberg

From: Elizabeth Topor <beyebranch@msn.com>
Sent: Friday, May 30, 2025 5:26 PM
To: Soyeon Choi
Subject: Additional notes Re: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

I wanted to take a moment to clarify a few concerns in my previous e-mail.

Re: Noise - The noise I am referring to is basic day-to-day noise which is uncommon to us out here, and not noise levels established as within some set limits as acceptable. As I walked around outside this morning doing chores, I realized I needed to clarify this. "Normal" country noise out here is any noise produced by the sounds of a variety of birds, the neighbor's cows mooing and their goats bleating at food time, my horses chewing, snorting/blowing and squealing, a dog playing or barking for a short time to say, "coyote" or "stranger", and the occasional bleats that our own goat and ewes make when they see us. People actually have videos or music they play to get this effect, but out here, we get to experience it every day, any time we step outside. We love to lay on a lounge chair outside with a good book or to take a quick nap while listening to the sounds of nature (birds and horses). This is a therapeutic atmosphere. It puts a smile on your face. You feel calm and that "all is well" with the world. This is the epitome of country living.

Noise out here carries. If someone at the corner store is yelling or arguing, we can hear them. If the Badanos have their grandchildren over and they are outside, we can hear them. Wound does travel, especially with the wind. That being said, the noise from this project which is not normal pleasant noise, will affect us. It will be heard throughout the day.

Re: Views: While one might be able to see above the solar panels to look at the mountains, that is not the only view I am talking about, but the ground level view leading to and including the mountains. The solar project is in the direct pathway to that view for me; meaning you do not just look up into the sky but you look across the open fields of green plants/vegetation, amazing wildflowers with wide open, gently sloping upward land, stretched across many miles to the mountains (which sadly this year the flowers were scarce and did not last long, possibly effected by the Apollo fire which burned so much of our vegetation and has not had a chance to regrow and an overall dry winter). The whole area and sights of open land gently sloping to the mountains is one you cannot exclude. Living on the eastside was flat, dry, and dirt, dirt, dirt. Nothing green to see, not much wildlife, except an occasional rattlesnake. It was, truth be told, ugly! A great idea would be to have solar on the eastside, as there are not a lot of homes, flat land, and fully open to sunshine.

Re: My asthma - My asthma tends to start and exacerbate mid-November thru the end of April/early May making my use of an inhaler necessary throughout the day and night. I have in the not-too-distant past had a small, right lower lobe pneumonia. I am 63 yrs. old and very concerned regarding an increased risk of Valley

Fever with this project, even with their attempt of preventative measures. Last year my doctor said they were seeing an increasing number of Valley Fever cases. I am also concerned for the children in my home. Our distance from the project makes us easy targets. We access the pastures to check fences, catch and bring a horse in, walk and ride in the pastures, walk back and forth to neighbors to care for their place while they are gone, and live in close proximity to this project.

Flight path: I am concerned regarding flight patterns for military and other entities' planes as they commonly fly quite low and right over my pastures, barn, home, and other structures. This includes helicopters, jets, etc. Could the glare from this project cause the pilots to err. This would be disastrous for the pilots, us, and the animals.

Please add these clarified comments to my previous e-mail.

Thank you again,

Elizabeth Topor

From: Soyeon Choi <schoi@planning.lacounty.gov>
Sent: Thursday, May 29, 2025 1:24 PM
To: Elizabeth Topor <beyebranch@msn.com>
Subject: RE: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

Dear Ms. Topor,

I appreciate your careful review of the project and comments. I will forward your comments to the applicant immediately. Your comments will also be added to the project folder and hearing package for review and consideration by the Regional Planning Commission.

Thank you,

SOYEON CHOI (she/her/hers)
SENIOR PLANNER, North County Development Services
Office: (213) 974-6443 • Direct: (213) 893-7021
Email: schoi@planning.lacounty.gov

CONFIDENTIALITY NOTICE: This email message, including any attachments, from the Department of Regional Planning is intended for the official and confidential use of the recipients to whom it is addressed. It contains information that may be confidential, privileged, work product, or otherwise exempted from disclosure under applicable law. If you have received this message in error, be advised that any review, disclosure, use, dissemination, distribution, or reproduction of this message or its contents is strictly prohibited. Please notify us immediately by reply email that you have received this message in error, and destroy this message, including any attachments.

From: Elizabeth Topor <beyebranch@msn.com>
Sent: Thursday, May 29, 2025 8:49 AM
To: Soyeon Choi <schoi@planning.lacounty.gov>
Subject: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

My name is Elizabeth Topor. I am e-mailing to voice my concerns of above said project.

I own parcel #s 3278 025 023; 3278 025 026 (both of which the fence lines adjoin the proposed project); and parcel 3278 025 035 (my home on 10 acres adjoining the other 2 parcels). I have lived here since Dec. 2019 (25 yrs).

My concerns are the following, among others:

Foster Mom: Being a foster mom with Trinity Youth Services I am concerned with employees of solar project for the safety of children including my 4 adopted ones . My home is a favorite for soothing children, calming those with hyperactivity and behavior issues. They thrive out here in this peaceful environment. Many behavioral health/therapists have seen the wonders this life/environment has on the children. The children love seeing nature and being around so many different animals. Life here is definitely a slower paced one. The social workers love coming out here. They are always amazed at the beauty, the fresh air and the peacefulness. My direct social worker (Denisse Ireland) loves to come sit outside with the children on a picnic table. They deal with many tough issues and busy cities, so coming here is like a getaway for a short time.

Fires: After the Apollo Fire here which destroyed 2 homes including 40+ animals, and encircled my property and both neighbors, it is my concern for smoking employees and extreme fire hazard in this area. This fire burned up to my front fence and around 2 sides, coming in my back pasture where several pasture horses reside, taking out fences and gates, all of which had to be replaced.

Horses: Multiple horses have access to the fence line between me and proposed project. My concern is for workers petting, feeding, "messing" with the horses, getting injured by one of the horses. A major concern is choke, a condition where if fed an apple or core, carrots, and/or watermelon rinds among other items they run the risk of choke, a serious condition where the food is stuck making the horse unable to swallow or drink. Often times a veterinarian (which chances of getting a vet out are very rare due to our location) cannot relieve such a choke due to the food source; therefore, having to euthanize the horse.

Dirt/sand blowing: Living in the Antelope Valley wind is not unusual, but out here it is unlikely to have any dust blowing, as is common on the very dry east side of the valley) a reason why I moved west 25 + years ago). This project is going to create lots of dust very near to my home and horses. I am an asthma sufferer so this is of concern to me as it can exacerbate my asthma.

Traffic: The dirt road (227th) on the east side of my pasture, if used for solar project traffic/workers will also create a lot of dust, noise and safety concern going back and forth on this little road we out here use to ride horses on, walk, and bike ride with children. Walking, riding, biking out here is very peaceful, soothing, and good for mind and body. It won't be if there is the danger and constant traffic back and forth on this dirt road.

Noise: It is very peaceful here with little noise (except the wind LOL). The neighbors are quiet. The air is fresh and clear. This project will be quite noisy with workers and all that goes along with it. Our peaceful life in the country will feel like we moved to the city. We are zoned heavy agriculture to grow things on like alfalfa hay,

raise livestock on, not for metal solar panels.. This is another reason why people come to live out here, a way to get away from busy cities and noise.

Family and animal life: People move out here to get away from the hustle and bustle of a city, to have room to roam and not feel "boxed in", to raise families in a peaceful, healthy environment, and to have animals, including livestock. It is a wonderful environment for them to romp and play, to flourish. If we wanted city life, we would life in a city.

Lights and noise: Another great reason to live in the country is for the clear skies, the starry nights, the peace and quiet for sleeping, and no lights!. Lights and any night activity will disrupt this. Sleeping outside in the summer is a big treat for kids and parents alike. It is like going camping, but in your own backyard.

Reflection of panels: The reflection from the solar panels will at different times of the day put off a very unbearable glare, which shine into a person's eyes, the trainer/rider of a horse, and the horse itself, making this an issue for safety, not to mention if you know how that glare affects your eyes. Being a foster mom, I have had social workers ask, "what is all that water way out there"? We reply, "solar panels".

Views: This is an area where homes are somewhat spread out with BEAUTIFUL views of the mountains to the south, west, and especially the north. This project will directly impact this. The view in the winter of the northern mountains with snow on them is breathtaking! It is a scene for picture taking. It is something you long to see and never get tired of.

Wildlife: Living here in Neenach we get to see a lot of wildlife (which we love to feed). Here at my very own house the California Quail abounds, with babies born every year, Blue Jays, Orioles, Red Robins, hawks, vultures, owls and we have also had the pleasure of a returning Roadrunner and Crane, an occasional duck and homing pigeon, along with the usual country critters of squirrels and rabbits (which we also feed), King snakes, Gopher snakes, Diamondback rattlers, and multiple Mojave Green rattlesnakes (which concerns me that they will be disrupted and head to my pastures). More recently we had two Cow Egrets come and visit the west neighbor's cows LOL. What a sight to see these birds fly over your head.

Please carefully consider my concerns and comments. Ruben Badano inherited the bare land from his father who passed away. There are many other things he could use it for, like agriculture, growing hay, which they have done in years past, raising livestock (they even have cattle pens, which his father raised some cattle in), subdividing and/or selling it off., or hey, just keep it the way it is because he has lived out here on that land for many years. I love my neighbors, we are brothers and sisters in Christ, but I strongly oppose this project because it will forever change the quality and reason for life out here in the country. Please keep solar far away from us country folks who moved here to be away from such things. Keep this a haven of peaceful beauty and nature for kids to thrive in. There are so many areas of open land where no people live or even want to live, where putting solar would not negatively impact their lives.

Thank you,

Sincerely,

Elizabeth Topor

Letter 4

Elizabeth Topor

Comment 4-1

I wanted to take a moment to clarify a few concerns in my previous e-mail.

Re: Noise - The noise I am referring to is basic day-to-day noise which is uncommon to us out here, and not noise levels established as within some set limits as acceptable. As I walked around outside this morning doing chores, I realized I needed to clarify this. "Normal" country noise out here is any noise produced by the sounds of a variety of birds, the neighbor's cows mooing and their goats bleating at food time, my horses chewing, snorting/blowing and squealing, a dog playing or barking for a short time to say, "coyote" or "stranger", and the occasional bleats that our own goat and ewes make when they see us. People actually have videos or music they play to get this effect, but out here, we get to experience it every day, any time we step outside. We love to lay on a lounge chair outside with a good book or to take a quick nap while listening to the sounds of nature (birds and horses). This is a therapeutic atmosphere. It puts a smile on your face. You feel calm and that "all is well" with the world. This is the epitome of country living.

Response 4-1

This comment raises concerns related to noise. As discussed in Response 3-7, noise impacts during Project construction and operations would be less than significant. Project construction would be in compliance with the County's allowable construction hours and would be limited to the daytime hours of 7 a.m. to 8 p.m. Monday through Saturday and prohibited on Sundays and on Holidays. Furthermore, operational noise would not exceed the County's daytime or nighttime noise standards, and noise from most Project components would be inaudible at the nearest receptor. Impacts would be less than significant.

Comment 4-2

Noise out here carries. If someone at the corner store is yelling or arguing, we can hear them. If the Badanos have their grandchildren over and they are outside, we can hear them. Wound does travel, especially with the wind. That being said, the noise from this project which is not normal pleasant noise, will affect us. It will be heard throughout the day.

Response 4-2

This comment raises concerns related to noise. See Response 3-7 and 4-1.

Comment 4-3

Re: Views: While one might be able to see above the solar panels to look at the mountains, that is not the only view I am talking about, but the ground level view leading to and including the mountains. The solar project is in the direct pathway to that view for me; meaning you do not just look up into the sky but you look across the open fields of green plants/vegetation, amazing wildflowers with wide open, gently sloping upward land, stretched across many miles to the mountains (which sadly this year the flowers were scarce and did not last long, possibly effected by the Apollo fire which burned so much of our vegetation and has not had a chance to regrow and an overall dry winter). The whole area and sights of open land gently sloping to the

mountains is one you cannot exclude. Living on the eastside was flat, dry, and dirt, dirt, dirt. Nothing green to see, not much wildlife, except an occasional rattlesnake. It was, truth be told, ugly! A great idea would be to have solar on the eastside, as there are not a lot of homes, flat land, and fully open to sunshine.

Response 4-3

This comment raises concerns related to views and scenic vistas. See Response 3-11.

Comment 4-4

Re: My asthma - My asthma tends to start and exacerbate mid-November thru the end of April/early May making my use of an inhaler necessary throughout the day and night. I have in the not-too-distant past had a small, right lower lobe pneumonia. I am 63 yrs. old and very concerned regarding an increased risk of Valley Fever with this project, even with their attempt of preventative measures. Last year my doctor said they were seeing an increasing number of Valley Fever cases. I am also concerned for the children in my home. Our distance from the project makes us easy targets. We access the pastures to check fences, catch and bring a horse in, walk and ride in the pastures, walk back and forth to neighbors to care for their place while they are gone, and live in close proximity to this project.

Response 4-4

This comment raises concerns related to Valley Fever. As discussed on pages 30 and 31 of the IS/MND, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. The Project is subject to Los Angeles County Code of Ordinances Section 22.140.510, which requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track out onto public roads, and the minimization of non-essential grading during high wind conditions. Due to the distance of the nearest sensitive receptor, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. As there would be no ground-disturbing activities during Project operation, the potential for Valley Fever occurrences would be limited during Project operation.

Comment 4-5

Flight path: I am concerned regarding flight patterns for military and other entities' planes as they commonly fly quite low and right over my pastures, barn, home, and other structures. This includes helicopters, jets, etc. Could the glare from this project cause the pilots to err. This would be disastrous for the pilots, us, and the animals.

Response 4-5

As discussed on page 18 of the IS/MND, the PV panels would not be expected to cause significant glare as the panels absorb sunlight during daylight hours and therefore produce minimal reflectivity that would affect day or nighttime views. Furthermore, as discussed on page 83 of

the IS/MND, the Project is not located within two miles of a public airport. As such, the Project would not have significant impacts related to glare that may affect flight paths.

The remainder of this letter can be found in Letter 3 in Responses to Comments 3-1 through 3-13.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 11, 2025

Soyeon Choi
Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
schoi@planning.lacounty.gov

SUBJECT: MITIGATED NEGATIVE DECLARATION FOR THE 230TH STREET SOLAR PROJECT, SCH NO. 2025050245, CITY OF LANCASTER, LOS ANGELES COUNTY

Dear Soyeon Choi:

The California Department of Fish and Wildlife (CDFW) has reviewed the Mitigated Negative Declaration (MND) for the 230th Street Solar Project (Project), which has been proposed by Los Angeles County Department of Regional Planning (Lead Agency; County) on behalf of RPCA Solar 12, LLC (Project proponent).

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

proposed may result in “take”, as defined by State law, of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 et seq.), CDFW recommends the County obtain appropriate authorization under the Fish and Game Code.

Project Summary

Project Proponent: RPCA Solar 12, LLC.

Objective: According to the MND, the proposed Project includes construction and operation of ground-mounted photovoltaic (PV) solar panels and a battery energy storage system (BESS) facility that would generate up to 4.99 megawatts (MW) of alternating current. The Project would consist of the following components: PV solar modules, BESS, underground electrical conductors, balance of system equipment, access roads, and fencing. The Project would tie into an existing electrical distribution system (owned by Southern California Edison), which is located southwest of and adjacent to the Project site along 230th Street W.

Site access for the 230th Solar Facility would be provided via the construction of a new driveway connecting to 230th Street W, a public roadway located along the western boundary of the Project site. The driveway entrance would be surfaced with gravel, transitioning to compacted native soil beyond the entrance to minimize soil disturbance while maintaining vehicular functionality.

The Project includes the development of new on-site access roads, which would:

- Encircle the entire solar array to ensure full perimeter accessibility;
- Bisect the site in a west-to-east orientation, providing a direct internal connection from the driveway entrance on 230th Street W to the eastern boundary of the Project site;
- Provide direct access to the BESS facility located within the Project area; and,
- Ensure that no PV solar panel is located more than 175 feet from a fire access road, enhancing emergency response capability.

A 10,000-gallon water tank would also be installed adjacent to the BESS and access gate on the southern side of the Project site. The water tank would have a supply outlet of 2.5 inches in diameter. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades. To mitigate a potential increase in runoff flows, an infiltration retention basin will be built on the Project site with an approximate volume of 42,336 cubic feet.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Location: According to the MND, the Project would occupy approximately 31 acres of a 39-acre parcel (Los Angeles County Assessor Parcel Number 3278-025-001). The Project site is generally located at 49560 230th Street W, near the community of Lancaster.

Biological Setting:

The Project site primarily consists of undeveloped desert habitat located near rural residences and existing solar developments. Vegetation on-site includes cheatgrass grassland (*Bromus tectorum*), inactive agricultural and ruderal land, and rubber rabbitbrush scrub (*Ericameria nauseosa*) that has naturally recolonized since agricultural activities ceased.

Several special-status species have a moderate potential to occur in the vicinity, including Crotch's bumble bee (*Bombus crotchii*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), LeConte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides*), prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), and western meadowlark (*Sturnella neglecta*). Additionally, several common native and nonnative bird species such as white-crowned sparrow (*Zonotrichia leucophrys*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*) may nest or forage within or near the site.

Two special-status mammal species—the American badger (*Taxidea taxus*), a California Species of Special Concern (SSC), and the desert kit fox (*Vulpes macrotis arsipus*) which is protected by Title 14, section 460 of the California Code of Regulations (furbearing mammals)—have low potential to occur on the Project site.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

Comment #1: Impacts to Raptors and Sensitive Species

Issue: The Project may impact raptors and sensitive species protected under CESA or designated as an SSC.

Specific impacts: Several sensitive species have been regularly observed nesting and foraging throughout the Palmdale and Lancaster area. The Project may potentially result in the loss of foraging and nesting habitat for CESA-listed Swainson's hawk, and CESA candidate listed burrowing owl and Crotch's bumble bee. The Project may also

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

impact the following SSCs: loggerhead shrike, LeConte's thrasher, mountain plover, ferruginous hawk, prairie falcon, short-eared owl, and American badger. Project activities may result in a loss of refugia, nest abandonment, and/or decreased feeding frequency. This could result in increased nestling mortality, a significant impact on these imperiled species. The Project may also result in a loss of breeding and/or foraging habitat.

Why impacts would occur: The Project area contains suitable habitat and recent documented occurrences of some of these sensitive species. Project activities include vegetation and tree removal, grading, and construction. Project activities are likely to result in elevated levels of noise, human activity, dust, ground vibrations, and vegetation disturbance. These disturbances and stressors occurring near potential nests could cause individuals to abandon their nests, resulting in the loss of fertile eggs or nestlings. The Mitigation Measures proposed in the MND (i.e., MM BIO-1, MM BIO-2, MM BIO-6, MM BIO-8, and MM BIO-9) may not (1) provide a sufficiently large buffer to avoid take, (2) commit adequate mitigation for the Project (particularly if take occurs), (3) adopt specific performance standards the mitigation will achieve, and/or (4) identify the type(s) of potential action(s) that can feasibly achieve the performance standard(s) that will be considered, analyzed, and potentially incorporated in the mitigation measure (CEQA Guidelines, § 15126.4).

Evidence impacts would be significant: CDFW considers adverse impacts to a species protected by CESA, absent appropriate mitigation, to be significant under CEQA. Under CESA, take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 86, 2062, 2067, 2068, 2080, 2085; Cal. Code Regs., tit. 14, § 786.9).

CDFW considers impacts to CESA-listed species a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. In addition, nests of all native bird species are protected under State laws and regulations, including Fish and Game Code, sections 3503 and 3503.5.

An SSC is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;
- is listed as under the Endangered Species Act, but not CESA-, threatened, or endangered; meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify the species for State threatened or endangered status; and/or,
- has naturally small populations exhibiting high susceptibility to risk from any

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

factor(s), that if realized, could lead to declines that would qualify it for CESA threatened or endangered status (CDFW 2025).

CEQA provides protection not only for CESA-listed species, but for any species including but not limited to SSC's which can be shown to meet the criteria for State listing. These SSC's meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380). Therefore, take of SSC's could require a mandatory finding of significance (CEQA Guidelines, § 15065). Inadequate avoidance and mitigation measures could result in continual substantial adverse direct and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species by CDFW.

Recommended Potentially Feasible Mitigation Measure(s):

Swainson's Hawk

CDFW released guidance for Swainson's hawk entitled Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (2010). CDFW recommends conducting focused surveys for Swainson's hawk following the 2010 guidance and disclosing the results in the Project's environmental document.

CDFW recommends the addition of the following underlined language to MM BIO-2:

MM BIO-2: <u>If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site. Consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have a take authorization prior to any activity that may result in take of CESA-protected species.</u>

Burrowing Owl

According to the MND, "…Rincon biologists performed a protocol-level burrowing owl (BUOW) survey on April 3, 2025 according to the CDFW 2012 *Staff Report on Burrowing Owl Mitigation.* No burrows of suitable size (4 inches or greater) were observed during the survey, and no BUOW were detected. Nevertheless, even with the low potential for BUOW to occur on the Project Site, the Project would implement pre-construction surveys and avoidance measures specific to BUOW" (p. 34).

CDFW recommends that MM BIO-6 is revised to incorporate the underlined language for burrowing owl and omit the language in strikethrough:

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

MM-BIO-6: A qualified biologist shall conduct surveys in accordance with protocols currently accepted by CDFW ~~following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012)~~ during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNNDB and develop a site-specific plan to avoid impacts on burrowing owl. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and~~/or~~ consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have take authorization prior to any activity that may result in take of CESA-protected species. ~~to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration~~

Crotch's Bumble Bee

According to the MND, "A protocol survey pass was performed on April 21, 2025, by two qualified Rincon biologists, each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed. Accordingly, there is low potential for Crotch's bumble bee to occur on the Project Site. Nevertheless, the County would implement MM BIO-9 to minimize potential impacts to Crotch's bumble bee" (p. 35).

CDFW recommends that MM BIO-9 is revised to incorporate the underlined language for Crotch's bumble bee and omit the language in strikethrough:

MM-BIO-9: A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project site. If no Crotch's bumble bees are detected on the site, no further mitigation will be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Nesting Birds

A temporary halt of Project activities within buffers during nesting season does not constitute effective mitigation for the purposes of offsetting Project impacts associated with habitat and tree loss. Effective mitigation is necessary to compensate for the long-term and temporal loss of ecological function, including permanent removal of nesting and foraging habitat. To ensure habitat and tree losses are sufficiently offset, mitigation should be designed to replace or enhance habitat of equal or greater ecological value, based on acreage of impact, tree loss, quality and composition of vegetation, and conservation status of the wildlife species affected.

CDFW recommends that MM BIO-1 is revised to incorporate the underlined language and omit the language in strikethrough:

MM BIO-1: To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and California Fish and Game Code, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15 (as early as January 1 for some raptors)) ~~(February 1 through August 31)~~ to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500 ~~300~~-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of the nesting bird survey findings will be provided to the County.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel (and CDFW depending on the species) shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County and CDFW. The memorandum shall include graphics and figures as necessary to support the results of the survey.

Comment #2: MM BIO-10 Vegetation and Revegetation

Issue: The Project will have impacts to vegetation communities, including cheat grass grassland, rubber rabbitbrush scrub, and small patches of native wildflowers such as California poppy (*Eschscholzia californica*) and yellowray goldfields (*Lasthenia glabrata*), which provide important nesting and foraging habitat for wildlife and avian species.

Specific impacts: Project activities such as the vegetation clearing and grading may eliminate or reduce habitat used by wildlife for nesting, foraging and cover, especially for species that rely on native vegetation structure and small mammal burrows observed throughout the site. The removal and degradation of these plant communities may cause long-term loss of ecological function across the site.

Why impacts would occur: According to the MND, the Project likely supports local movement patterns and provides food and cover resources for common wildlife species. In addition, small mammal burrows have been observed throughout the Project site suggesting active use by ground-dwelling species.

Evidence impacts would be significant: The traditional method of solar construction is “blade and grade” which involves blading vegetation and grading resulting in compaction of the soil. According to Karban et al. (2024), construction practices often include the removal of all native vegetation with “blade and grade”, eliminating breeding, foraging, shelter, for ground-dwelling species and eliminates migratory stop-over habitats of avian species. Per CEQA Guidelines, section 15065 (a), a project may have a significant effect on biological resources if the project substantially reduces the habitat of a fish or wildlife species; threatens to eliminate a plant community; or has the potential to restrict the range of endangered, rare, or threatened species.

Recommended Potentially Feasible Mitigation Measure(s):

Recommendation #1: The implementation of MM BIO-10 does not constitute effective mitigation for the purposes of offsetting Project impacts associated with the loss of nesting and foraging habitat. CDFW recommends the Project proponent consider an alternative construction method instead of the traditional “blade and grade” method, where vegetation is crushed in some areas, but soils and vegetation are otherwise left intact (“drive and crush”). Leaving vegetation crushed with the “drive and crush”

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

method, leaves roots intact and allows vegetation to more successfully regenerate. This alternative construction method can create an opportunity for vegetation to be left between panel rows and elsewhere to provide some habitat for desert-dwelling avian species and ameliorate some habitat effects (Karban et al. 2024).

Recommendation #2: To offset the loss of vegetation, CDFW recommends the County include landscape buffers for the Project along the northern and eastern boundaries of the Project site. The Project, as currently proposed, only considers buffers along the western and southern boundaries.

Recommendation #3: CDFW recommends the County's proposed planting palette for the landscape buffer and for the revegetation of decommissioning include species endemic to the region, such as California poppy, yellowray goldfields, desert saltgrass (*Distichlis spicata*), deerweed (*Acmispon glaber*), desert milkweed (*Asclepias erosa*), Acton encelia (*Encelia actoni*), Prince's plume (*Stanleya pinnata*), Nevada ephedra (*Ephedra nevadensis*), winter fat (*Krascheninnikovia lanata*), and rubber rabbishbrush (*Ericameria nauseosa*).

Recommendation #4: CDFW recommends the County develop a weed management plan for the Project area and implement it during construction and throughout the life of the Project. Soil disturbance, such as mowing or vegetation clearing around the PV solar panels, promote the establishment of non-native weeds. Non-native weeds should be prevented from becoming established during and after construction to control the spread of invasive plants. The Project area should be monitored (via mapping) for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring should be included in this plan. Monitoring the potential spread of invasive weeds onto adjacent lands should also be included.

Recommendation #5: CDFW recommends that any irrigation proposed by the County for the landscape buffers, routine PV solar panel washing, or for the revegetation of decommissioning drain back into the development and not onto natural habitat land as perennial sources of water allow for the introduction of invasive Argentine ants. Irrigation should only be used if an individual plant is stressed and it should be limited to the first year (in the installation phase). Temporary or permanent irrigation should not be installed, because only individual plants under stress should be targeted for watering. Hand watering Is preferred. If a temporary irrigation system must be installed it should not be connected to a water source and should not be on a timer. The water source (water truck) should only be connected to the irrigation system while it is in use. A system left on a timer should never be used as this creates an unnatural hydrologic regime and more robust growth than would normally be supported by the existing site.

Mitigation and Monitoring Reporting Plan

CDFW recommends the County adopt the mitigation measures and recommendations in this letter into the MND. Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments [(Pub. Resources Code, §

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

21081.6; CEQA Guidelines, § 15126.4(a)(2)]. As such, CDFW has provided comments and recommendations to assist the County in developing mitigation measures that are (1) consistent with CEQA Guidelines, section 15126.4; (2) specific; (3) detailed (i.e., responsible party, timing, specific actions, location), and (4) clear for a measure to be fully enforceable and implemented successfully via mitigation, monitoring, and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

The County is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code, section 21081.6(a)(1), CDFW has provided the County with a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation and Monitoring Reporting Plan (MMRP; Attachment 1).

Environmental Data

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database (i.e., California Natural Diversity Database (CNDDB)) which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, sub. (e)) Accordingly, please report any special status species and natural communities detected during Project surveys to the CNDDB. The CNNDB field survey form can be filled out and submitted online (CDFW 2024b). Please visit CDFW online to access the types of information reported to CNDDB. Information on special status native plant populations and sensitive natural communities, the Combined Rapid Assessment and Relevé Form should be completed and submitted to CDFW's Vegetation Classification and Mapping Program (CDFW 2025)

Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

Conclusion

CDFW appreciates the opportunity to comment on the MND to assist the County in identifying and mitigating Project impacts on biological resources. To ensure significant impacts are adequately mitigated to a level less-than-significant, the feasible mitigation measures described above should be incorporated as enforceable conditions in the MND for the Project. CDFW requests an opportunity to review and comment on any

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

response that the County has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines, § 15073(e)].

Questions regarding this letter or further coordination should be directed to Mary Ngo, Senior Environmental Scientist (Specialist), at Mary.Ngo@wildlife.ca.gov or (562) 292-8105 to schedule a meeting with CDFW.

Sincerely,

DocuSigned by:
Heather A. Pert
DF423498814B441...

Heather A. Pert
Environmental Program Manager
South Coast Region

Attachments

Attachment A: Draft Mitigation and Monitoring Plan

ec: California Department of Fish and Wildlife
Baron Barrera, Senior Environmental Scientist (Supervisory)
Felicia Silva, Senior Environmental Scientist (Specialist)
Cindy Hailey, Staff Services Analyst
CEQA Program Coordinator – Sacramento

Office of Planning and Research
State Clearinghouse – State.Clearinghouse@opr.ca.gov

References

[CDFW] California Department of Fish and Wildlife. 2025. Species of Special Concern. Available from: https://wildlife.ca.gov/Conservation/SSC

[CDFW] California Department of Fish and Wildlife. 2024a. Lake and Streambed Alteration Program.

[CDFW] California Department of Fish and Wildlife. 2024b. Submitting Data to the CNDDB.

[CDFW] California Department of Fish and Wildlife. June 2, 2010. Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California Available from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83991&inline

Karban, C. C., Lovich, J. E., Grodsky, S. M., & Munson, S. M. (2024). Predicting the effects of solar energy development on plants and wildlife in the Desert Southwest, United States. *Renewable and Sustainable Energy Reviews*, *205*, 114823.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Mitigation and Monitoring Reporting Plan	Timing	Responsible Party
MM BIO-1 Nesting Bird Surveys. To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and CFGC, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through August 31) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 300-foot buffer (250-foot for raptors and 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not required during O&M activities. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey. **CDFW recommends that MM BIO-1 is revised to incorporate the underlined language and omit the language in strikethrough:** **MM BIO-1:** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and California Fish and Game Code, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15 (as early as January 1 for some raptors)) (February 1 through August 31) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500 300-foot buffer (250-foot for raptors and 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of the nesting bird survey findings will be provided to the County. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel (and CDFW depending on the species) shall be notified as to the existence of the buffer zone and instructed to avoid		

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County and CDFW. The memorandum shall include graphics and figures as necessary to support the results of the survey.		
MM BIO-2 Swainson's Hawk. If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. **CDFW recommends the addition of the following underlined language to MM BIO-2:**	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

MM BIO-2: If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site. Consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have a take authorization prior to any activity that may result in take of CESA-protected species.		
MM BIO-6 Burrowing Owl Avoidance. A qualified biologist shall conduct surveys following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration. **CDFW recommends that MM BIO-6 is revised to incorporate the underlined language for burrowing owl and omit the language in strikethrough:** **MM-BIO-6:** A qualified biologist shall conduct surveys in accordance with protocols currently accepted by CDFW following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) during the survey season immediately prior to construction and	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

decommissioning to assess the presence of burrowing owl on or adjacent to the site. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNNDB and develop a site-specific plan to avoid impacts on burrowing owl. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have take authorization prior to any activity that may result in take of CESA-protected species. to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration		
MM BIO-9 Crotch's bumble bee. Protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) shall be performed prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

• If “take” or adverse impacts to Crotch’s bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b). • Any floral resource associated with Crotch’s bumble bee (i.e. specific plant species that Crotch’s bumble bee is observed foraging on) that will be removed or damaged by the Project shall be replaced at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved. **CDFW recommends that MM BIO-9 is revised to incorporate the underlined language for Crotch’s bumble bee:** **MM-BIO-9:** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch’s bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) shall be performed during the appropriate flying season prior to construction to determine if Crotch’s bumble bee is present on the Project site. If no Crotch’s bumble bees are detected on the site, no further mitigation will be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.		
Recommendation #1: The implementation of MM BIO-10 does not constitute effective mitigation for the purposes of offsetting Project impacts associated with the loss of nesting and foraging habitat. CDFW recommends the Project proponent consider an alternative construction method instead of the traditional “blade and grade” method, where vegetation is crushed in some areas, but soils and vegetation are otherwise left intact (“drive and crush”). Leaving vegetation crushed with the “drive and crush” method, leaves roots intact and allows vegetation to more successfully regenerate. This alternative construction	Prior to finalizing CEQA document	Lead Agency

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

method can create an opportunity for vegetation to be left between panel rows and elsewhere to provide some habitat for desert-dwelling avian species and ameliorate some habitat effects (Karban et al. 2024).		
Recommendation #2: To offset the loss of vegetation, CDFW recommends the County include landscape buffers for the Project along the northern and eastern boundaries of the Project site. The Project, as currently proposed, only considers buffers along the western and southern boundaries.	Prior to finalizing CEQA document	Lead Agency
Recommendation #3: CDFW recommends the County's proposed planting palette for the landscape buffer and for the revegetation of decommissioning include species endemic to the region, such as California poppy, yellowray goldfields, desert saltgrass (*Distichlis spicata*), deerweed (*Acmispon glaber*), desert milkweed (*Asclepias erosa*), Acton encelia (*Encelia actoni*), Prince's plume (*Stanleya pinnata*), Nevada ephedra (*Ephedra nevadensis*), winter fat (*Krascheninnikovia lanata*), and rubber rabbishbrush (*Ericameria nauseosa*).	Prior to finalizing CEQA document; and, During the life of the Project	Lead Agency; and, Project Proponent
Recommendation #4: CDFW recommends the County develop a weed management plan for the Project area and implement it during construction and throughout the life of the Project. Soil disturbance, such as mowing or vegetation clearing around the PV solar panels, promote the establishment of non-native weeds. Non-native weeds should be prevented from becoming established during and after construction to control the spread of invasive plants. The Project area should be monitored (via mapping) for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring should be included in this plan. Monitoring the potential spread of invasive weeds onto adjacent lands should also be included.	Prior to finalizing CEQA document; During the life of the Project; and, Prior to project decommissioning	Lead Agency; and, Project Proponent
Recommendation #5: CDFW recommends that any irrigation proposed by the County for the landscape buffers, routine PV solar panel washing, or for the revegetation of decommissioning drain back into the development and not onto natural habitat land as perennial sources of water allow for the introduction of invasive Argentine ants. Irrigation should only be used if an individual plant is stressed and it should be limited to the first year (in the installation phase).	Prior to finalizing CEQA document; During the life of the Project; and,	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Temporary or permanent irrigation should not be installed, because only individual plants under stress should be targeted for watering. Hand watering Is preferred. If a temporary irrigation system must be installed it should not be connected to a water source and should not be on a timer. The water source (water truck) should only be connected to the irrigation system while it is in use. A system left on a timer should never be used as this creates an unnatural hydrologic regime and more robust growth than would normally be supported by the existing site.	Prior to project decommissioning	

Letter 5

California Department of Fish and Wildlife
Heather A. Pert.
Environmental Program Manager
3883 Ruffin Road
San Deigo, CA 92123

Comment 5-1

The California Department of Fish and Wildlife (CDFW) has reviewed the Mitigated Negative Declaration (MND) for the 230th Street Solar Project (Project), which has been proposed by Los Angeles County Department of Regional Planning (Lead Agency; County) on behalf of RPCA Solar 12, LLC (Project proponent).

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

Response 5-1

This comment acknowledges receipt of the MND. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-2

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G.Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 et seq.), CDFW recommends the County obtain appropriate authorization under the Fish and Game Code.

Response 5-2

This comment summarizes the roles and responsibilities of the CDFW. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-3

Project Summary

Project Proponent: RPCA Solar 12, LLC.

Objective: According to the MND, the proposed Project includes construction and operation of ground-mounted photovoltaic (PV) solar panels and a battery energy storage system (BESS) facility that would generate up to 4.99 megawatts (MW) of alternating current. The Project would consist of the following components: PV solar modules, BESS, underground electrical conductors, balance of system equipment, access roads, and fencing. The Project would tie into an existing electrical distribution system (owned by Southern California Edison), which is located southwest of and adjacent to the Project site along 230th Street W.

Site access for the 230th Solar Facility would be provided via the construction of a new driveway connecting to 230th Street W, a public roadway located along the western boundary of the Project site. The driveway entrance would be surfaced with gravel, transitioning to compacted native soil beyond the entrance to minimize soil disturbance while maintaining vehicular functionality.

The Project includes the development of new on-site access roads, which would:

- Encircle the entire solar array to ensure full perimeter accessibility;
- Bisect the site in a west-to-east orientation, providing a direct internal connection from the driveway entrance on 230th Street W to the eastern boundary of the Project site;
- Provide direct access to the BESS facility located within the Project area; and,
- Ensure that no PV solar panel is located more than 175 feet from a fire access road, enhancing emergency response capability.

A 10,000-gallon water tank would also be installed adjacent to the BESS and access gate on the southern side of the Project site. The water tank would have a supply outlet of 2.5 inches in diameter. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades. To mitigate a potential increase in runoff flows, an infiltration retention basin will be built on the Project with an approximate volume of 42,336 cubic feet.

Location: According to the MND, the Project would occupy approximately 31 acres of a 39-acre parcel (Los Angeles County Assessor Parcel Number 3278-025-001). The Project site is generally located at 49560 230th Street W, near the community of Lancaster.

Response 5-3

This comment provides a summary of the Project's objective and location as presented in the IS/MND. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-4

Biological Setting:

The Project site primarily consists of undeveloped desert habitat located near rural residences and existing solar developments. Vegetation on-site includes cheatgrass grassland (*Bromus tectorum*), inactive agricultural and ruderal land, and rubber rabbitbrush scrub (*Ericameria nauseosa*) that has naturally recolonized since agricultural activities ceased.

Several special-status species have a moderate potential to occur in the vicinity, including Crotch's bumble bee (*Bombus crotchii*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), LeConte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides*), prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), and western meadowlark (*Sturnella neglecta*). Additionally, several common native and nonnative bird species such as white-crowned sparrow (*Zonotrichia leucophrys*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*) may nest or forage within or near the site.

Two special-status mammal species—the American badger (*Taxidea taxus*), a California Species of Special Concern (SSC), and the desert kit fox (*Vulpes macrotis arsipus*) which is protected by Title 14, section 460 of the California Code of Regulations (furbearing mammals)—have low potential to occur on the Project site.

Response 5-4

This comment provides a summary of the biological setting of the Project Site and the special-status species, common native and nonnative bird species, and special-status mammal species that may have potential to occur on the Project Site. These species are acknowledged within the IS/MND and the associated technical studies (see the Biological Resources Assessment provided in Appendix C-1 of the IS/MND and the Biological Resources Supplemental Memorandum provided in Appendix C-2 of the IS/MND). As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-5

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

Comment #1: Impacts to Raptors and Sensitive Species

Issue: The Project may impact raptors and sensitive species protected under CESA or designated as an SSC.

Specific impacts: Several sensitive species have been regularly observed nesting and foraging throughout the Palmdale and Lancaster area. The Project may potentially result in the loss of foraging and nesting habitat for CESA-listed Swainson's hawk, and CESA candidate listed burrowing owl and Crotch's bumble bee. The Project may also impact the following SSCs: loggerhead shrike, LeConte's thrasher, mountain plover, ferruginous hawk, prairie falcon, short-eared owl, and American badger. Project activities may result in a loss of refugia, nest abandonment, and/or decreased feeding frequency. This could result in increased nestling mortality, a significant impact on these imperiled species. The Project may also result in a loss of breeding and/or foraging habitat.

Why impacts would occur: The Project area contains suitable habitat and recent documented occurrences of some of these sensitive species. Project activities include vegetation and tree removal, grading, and construction. Project activities are likely to result in elevated levels of noise, human activity, dust, ground vibrations, and vegetation disturbance. These disturbances and stressors occurring near potential nests could cause individuals to abandon their nests, resulting in the loss of fertile eggs or nestlings. The Mitigation Measures proposed in the MND (i.e., MM BIO-1, MM BIO-2, MM BIO-6, MM BIO-8, and MM BIO-9) may not (1) provide a sufficiently large buffer to avoid take, (2) commit adequate mitigation for the Project (particularly if take occurs), (3) adopt specific performance standards the mitigation will achieve, and/or (4) identify the type(s) of potential action(s) that can feasibly achieve the performance standard(s) that will be considered, analyzed, and potentially incorporated in the mitigation measure (CEQA Guidelines, § 15126.4).

Evidence impacts would be significant: CDFW considers adverse impacts to a species protected by CESA, absent appropriate mitigation, to be significant under CEQA. Under CESA, take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 86, 2062, 2067, 2068, 2080, 2085; Cal. Code Regs., tit. 14, § 786.9).

CDFW considers impacts to CESA-listed species a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. In addition, nests of all native bird species are protected under State laws and regulations, including Fish and Game Code, sections 3503 and 3503.5.

An SSC is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;
- is listed as under the Endangered Species Act, but not CESA-, threatened, or endangered; meets the State definition of threatened or endangered but has not formally been listed;

- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify the species for State threatened or endangered status; and/or,
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for CESA threatened or endangered status (CDFW 2025).

CEQA provides protection not only for CESA-listed species, but for any species including but not limited to SSC's which can be shown to meet the criteria for State listing. These SSC's meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380). Therefore, take of SSC's could require a mandatory finding of significance (CEQA Guidelines, § 15065). Inadequate avoidance and mitigation measures could result in continual substantial adverse direct and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species by CDFW.

Recommended Potentially Feasible Mitigation Measure(s):

Swainson's Hawk

CDFW released guidance for Swainson's hawk entitled Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (2010). CDFW recommends conducting focused surveys for Swainson's hawk following the 2010 guidance and disclosing the results in the Project's environmental document.

CDFW recommends the addition of the following underlined language to MM BIO-2:

MM BIO-2: <u>If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site. Consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have a take authorization prior to any activity that may result in take of CESA-protected species.</u>

Response 5-5

This comment states that the Project may impact raptors and sensitive species protected under the California Endangered Species Act (CESA) (e.g., CESA-listed Swainson's hawk and CESA candidate listed burrowing owl and Crotch's bumble bee) or designated as a Species of Special Concern (SSC) (e.g., loggerhead shrike, LeConte's thrasher, mountain plover, ferruginous hawk, prairie falcon, short-eared owl, and American badger). The IS/MND and associated technical studies acknowledge that the species have a potential to occur within the vicinity of the Project Site based on the CDFW California Natural Diversity Database (CNDDB) and the USFWS Information for Planning and Consultation (IPaC) searches. Specifically regarding Swainson's hawk (SWHA), as described on page 34 of the IS/MND, a SWHA survey was performed by qualified Rincon biologists on April 15, 2025. No SWHA were observed within the 0.5-mile buffer of the Project Site during the survey, and there is only one CNDDB documented occurrence of

SWHA within 5 miles of the Project Site, dated 2020. The Project would implement a nesting bird survey (see MM BIO-1) during construction and decommissioning and MM BIO-2, which requires avoidance buffers around any active SWHA nests, should the pre-construction nesting bird survey detect active SWHA nests. The Project also would implement MM BIO-3 to ensure that all persons working on the Project (during construction, O&M, and decommissioning) received worker environmental awareness training. MM BIO-2 already includes additional monitoring should active SWHA nests be detected, as well as an avoidance buffer. However, MM BIO-2 is revised as follows to address CDFW consultation in the event avoidance buffers cannot be maintained:

MM BIO-2 **Swainson's Hawk.** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps.

Comment 5-6

Burrowing Owl

According to the MND, "…Rincon biologists performed a protocol-level burrowing owl (BUOW) survey on April 3, 2025 according to the CDFW 2012 *Staff Report on Burrowing Owl Mitigation.* No burrows of suitable size (4 inches or greater) were observed during the survey, and no BUOW were detected. Nevertheless, even with the low potential for BUOW to occur on the Project Site, the Project would implement pre- construction surveys and avoidance measures specific to BUOW" (p. 34).

CDFW recommends that MM BIO-6 is revised to incorporate the underlined language for burrowing owl and omit the language in strikethrough:

MM-BIO-6: A qualified biologist shall conduct surveys in accordance with protocols currently accepted by CDFW ~~following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012)~~ during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNNDB and develop a site-specific plan to avoid impacts on burrowing owl. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and~~/or~~ consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.).The project proponent shall have take authorization prior to any activity that may result in take of CESA-protected species. ~~to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration~~

Response 5-6

The comment recommends revisions to MM BIO-6 regarding burrowing owl surveys. It should be noted that MM BIO-6 utilizes the most current guidelines regarding burrowing owl surveys, including the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines and the CDFW Staff Report on Burrowing Owl Mitigation (2012). As no more recent guidelines have been released, the County will continue to use the existing guidelines within MM BIO-6. Additionally, MM BIO-6 already states that if maintaining the avoidance buffers is infeasible, the CDFW shall be notified and consultation shall determine whether an Incidental Take Permit (ITP) is warranted. Therefore, MM BIO-6 is revised as follows:

MM BIO-6 **Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow~~ing~~ the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW ~~during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site~~.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNDDB. If maintaining the avoidance buffers is infeasible, CDFW shall be

notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.

Comment 5-7

Crotch's Bumble Bee

According to the MND, "A protocol survey pass was performed on April 21, 2025, by two qualified Rincon biologists, each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed.
Accordingly, there is low potential for Crotch's bumble bee to occur on the Project Site. Nevertheless, the County would implement MM BIO-9 to minimize potential impacts to Crotch's bumble bee" (p. 35).

CDFW recommends that MM BIO-9 is revised to incorporate the underlined language for Crotch's bumble bee and omit the language in strikethrough:

MM-BIO-9: A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project site. If no Crotch's bumble bees are detected on the site, no further mitigation will be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

Response 5-7

The comment recommends edits to MM BIO-9 regarding Crotch's bumble bee. MM BIO-9 already requires appropriate survey efforts for Crotch's bumble bee. However, MM BIO-9 is revised as follows to make clarifying edits, inclusive of the revision provided in Response 1-2:

MM BIO-9 **Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform ~~P~~protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).
- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

Comment 5-8

Nesting Birds

A temporary halt of Project activities within buffers during nesting season does not constitute effective mitigation for the purposes of offsetting Project impacts associated with habitat and tree loss. Effective mitigation is necessary to compensate for the long-term and temporal loss of ecological function, including permanent removal of nesting and foraging habitat. To ensure habitat and tree losses are sufficiently offset, mitigation should be designed to replace or enhance habitat of equal or greater ecological value, based on acreage of impact, tree loss, quality and composition of vegetation, and conservation status of the wildlife species affected.

CDFW recommends that MM BIO-1 is revised to incorporate the underlined language and omit the language in strikethrough:

MM BIO-1: To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and California Fish and Game Code, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15 (as early as January 1 for some raptors)) ~~(February 1 through August 31)~~ to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500 ~~300~~-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of the nesting bird survey findings will be provided to the County.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel (and CDFW depending on the species) shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County and CDFW. The memorandum shall include graphics and figures as necessary to support the results of the survey.

Response 5-8

The comment recommends revisions to MM BIO-1 related to nesting birds. CDFW notification and consultation already is required in the other mitigation measures related to impacts on special-status species. MM BIO-1 is revised as follows to address the length of potential nesting season and to ensure appropriate survey buffers. However, there is little evidence of nesting in January, such that nesting bird surveys conducted during that time would not provide relevant data for determining potential nesting activities and establishing appropriate buffers. See Response 5-9, below, regarding nesting and foraging habitat.

MM BIO-1 **Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and CFGC, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through ~~August 31~~ September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a ~~300~~ 500-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require

subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not required during O&M activities.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.

Comment 5-9

Comment #2: MM BIO-10 Vegetation and Revegetation

Issue: The Project will have impacts to vegetation communities, including cheat grass grassland, rubber rabbitbrush scrub, and small patches of native wildflowers such as California poppy (*Eschscholzia californica*) and yellowray goldfields (*Lasthenia glabrata*), which provide important nesting and foraging habitat for wildlife and avian species.

Specific impacts: Project activities such as the vegetation clearing and grading may eliminate or reduce habitat used by wildlife for nesting, foraging and cover, especially for species that rely on native vegetation structure and small mammal burrows observed throughout the site. The removal and degradation of these plant communities may cause long-term loss of ecological function across the site.

Why impacts would occur: According to the MND, the Project likely supports local movement patterns and provides food and cover resources for common wildlife species. In addition, small mammal burrows have been observed throughout the Project site suggesting active use by ground-dwelling species.

Evidence impacts would be significant: The traditional method of solar construction is "blade and grade" which involves blading vegetation and grading resulting in compaction of the soil. According to Karban et al. (2024), construction practices often include the removal of all native vegetation with "blade and grade", eliminating breeding, foraging, shelter, for ground-dwelling species and eliminates migratory stop-over habitats of avian species. Per CEQA Guidelines, section 15065 (a), a project may have a significant effect on biological resources if the project substantially reduces the habitat of a fish or wildlife species; threatens to eliminate a plant community; or has the potential to restrict the range of endangered, rare, or threatened species.

Recommended Potentially Feasible Mitigation Measure(s):

Recommendation #1: The implementation of MM BIO-10 does not constitute effective mitigation for the purposes of offsetting Project impacts associated with the loss of nesting and foraging habitat. CDFW recommends the Project proponent consider an alternative construction method instead of the traditional "blade and grade" method, where vegetation is crushed in some areas, but soils and vegetation are otherwise left intact ("drive and crush"). Leaving vegetation crushed with the "drive and crush" method, leaves roots intact and allows vegetation to more successfully regenerate. This alternative construction method can create an opportunity for vegetation to be left between panel rows and elsewhere to provide some habitat for desert-dwelling avian species and ameliorate some habitat effects (Karban et al. 2024).

Response 5-9

The comment includes recommendations regarding vegetation and revegetation to minimize long-term loss of ecological function across the Project Site. The comment recommends consideration of alternative construction methods instead of the traditional "blade and grade" method. Alternative construction methods, such as "drive and crush" will be utilized as practicable. The County's Renewable Energy Ordinance also prohibits the removal of existing vegetation root systems, except where necessary for construction of access roads, substations and certain other components. Further, as provided in the IS/MND, the Project would not have a cumulatively considerable effect on biological resources or habitat for special-status species. The Project Site lacks high-value habitat, likely due to past agricultural uses that included regular disking, which resulted in the degradation of natural habitats and disturbance of native soils. Thus, the Project Site overall provides low quality habitat, and development of the Project Site would not cause a significant loss of high-value foraging, sheltering, or nesting habitat. The surrounding undeveloped parcels that have not been disturbed by agricultural uses are of much higher value to special-status species. In addition to being of poor habitat value, the small footprint of the Project means that the relative scale of potential Project impacts is limited and contributes little to any potential cumulative effects in the larger vicinity of the Project, as it does not reduce movement corridors or significant amounts of potential habitat for special-status plant and wildlife species. In addition, the habitat on the Project Site would not be removed completely, as annual grassland will be retained under the arrays. This will provide foraging opportunities for multiple species. Moreover, the Project was designed to allow for movement around and through the arrays by requiring a gap at the bottom of the fence, therefore encouraging movement of wildlife species through and in the vicinity of the Project Site. The land that the Project is sited on has not been designated as critical habitat by USFWS, nor has it been set aside for conservation by any other entity.

Comment 5-10

Recommendation #2: To offset the loss of vegetation, CDFW recommends the County include landscape buffers for the Project along the northern and eastern boundaries of the Project site. The Project, as currently proposed, only considers buffers along the western and southern boundaries.

Response 5-10

The comment recommends that landscape buffers be provided along the northern and eastern boundaries. The Project complies with the County's Renewable Energy Ordinance requirements for landscape buffers. Further, as described in Response 5-9, the Project Site overall provides low quality habitat, and development of the Project Site would not cause a significant loss of high-value foraging, sheltering, or nesting habitat. As noted on page 6 of the IS/MND, pursuant to Section 22.140.510.E.3.c.viii of the County's Renewable Energy Ordinance, a landscaped area at least 10 feet in depth shall be maintained between perimeter fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. The Project complies with this requirement and proposes a 10-foot landscape buffer between the fence and the access road along the western and southern boundaries of the Project Site. Therefore, no additional landscape buffer is required. See also Response 5-9 regarding impacts to habitat.

Comment 5-11

Recommendation #3: CDFW recommends the County's proposed planting palette for the landscape buffer and for the revegetation of decommissioning include species endemic to the region, such as California poppy, yellowray goldfields, desert saltgrass (*Distichlis spicata*), deerweed (*Acmispon glaber*), desert milkweed (*Asclepias erosa*), Acton encelia (*Encelia actoni*), Prince's plume (*Stanleya pinnata*), Nevada ephedra (*Ephedra nevadensis*), winter fat (*Krascheninnikovia lanata*), and rubber rabbishbrush (*Ericameria nauseosa*).

Response 5-11

The comment recommends the County's planting palette include species endemic to the region. As the Project's landscape buffer is intended to screen the Project Site from the motorists and the nearby residents, the planting palette would be required to include vegetation that would be tall enough to provide adequate screening. The species included in the comment would not be feasible to provide adequate screening. As stated in MM BIO-10, the seed mix shall be provided to the County for review prior to application, and the County's Renewable Energy Ordinance requires the use of non-invasive, drought tolerant vegetation for landscaping.

Comment 5-12

Recommendation #4: CDFW recommends the County develop a weed management plan for the Project area and implement it during construction and throughout the life of the Project. Soil disturbance, such as mowing or vegetation clearing around the PV solar panels, promote the establishment of non-native weeds. Non-native weeds should be prevented from becoming established during and after construction to control the spread of invasive plants. The Project area should be monitored (via mapping) for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring should be included in this

plan. Monitoring the potential spread of invasive weeds onto adjacent lands should also be included.

Response 5-12

The comment recommends a weed management plan for the Project area be implemented during construction and operation of the Project. The Project Proponent would implement MM BIO-10 to minimize impacts to soil and native vegetation and would comply with the County's Renewable Energy Ordinance, which includes requirements to minimize soil and vegetation disturbance and erosion. Additionally, as part of the Project's Decommissioning Plan, the Project Proponent would commit to restoration of any disturbed soils and vegetation of the Project Site to pre-construction conditions. Erosion and sediment control, re-seeding, soil stabilization, weed control, and fertilization will be provided by the Project Proponent as needed until the Project Site is stabilized and approved to be completed by the County. The Project Proponent would monitor the vegetation conditions for the Project Site, but is unable to do so for areas not within their ownership and control.

Comment 5-13

Recommendation #5: CDFW recommends that any irrigation proposed by the County for the landscape buffers, routine PV solar panel washing, or for the revegetation of decommissioning drain back into the development and not onto natural habitat land as perennial sources of water allow for the introduction of invasive Argentine ants. Irrigation should only be used if an individual plant is stressed and it should be limited to the first year (in the installation phase). Temporary or permanent irrigation should not be installed, because only individual plants under stress should be targeted for watering. Hand watering Is preferred. If a temporary irrigation system must be installed it should not be connected to a water source and should not be on a timer. The water source (water truck) should only be connected to the irrigation system while it is in use. A system left on a timer should never be used as this creates an unnatural hydrologic regime and more robust growth than would normally be supported by the existing site.

Response 5-13

The comment recommends that irrigation for the landscape buffers, routine PV solar panel washing, or revegetation drain back into the Project Site and not onto natural habitat land. As stated on page 71 of the IS/MND and in the Project's Drainage Report (Appendix I of the IS/MND), the Project would construct retention basins to attenuate assumed increases to peak flow and volume. The basins would be located in the center of the Project Site. As the volume of the proposed retention basin is greater than the proposed change in peak flow rates, installation of the retention basin would attenuate peak runoff flows. Additionally, no permanent irrigation would be installed for the Project. Irrigation would be temporary with minimal water use to establish the buffer, and no long-term irrigation would be utilized.

Comment 5-14

Mitigation and Monitoring Reporting Plan

CDFW recommends the County adopt the mitigation measures and recommendations in this letter into the MND. Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments [(Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15126.4(a)(2)]. As such, CDFW has provided comments and recommendations to assist the County in developing mitigation measures that are (1) consistent with CEQA Guidelines, section 15126.4; (2) specific; (3) detailed (i.e., responsible party, timing, specific actions, location), and (4) clear for a measure to be fully enforceable and implemented successfully via mitigation, monitoring, and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

The County is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code, section 21081.6(a)(1), CDFW has provided the County with a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation and Monitoring Reporting Plan (MMRP; Attachment 1).

Response 5-14

The comment recommends the County adopt the revisions and recommendations into the MND and has provided revisions in Attachment 1 of the comment letter. As detailed in Responses 5-1 through 5-13, clarifications to the mitigation measures have been provided accordingly. No further response is warranted.

Comment 5-15

Environmental Data

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database (i.e., California Natural Diversity Database (CNDDB)) which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, sub. (e)) Accordingly, please report any special status species and natural communities detected during Project surveys to the CNDDB. The CNNDB field survey form can be filled out and submitted online (CDFW 2024b). Please visit CDFW online to access the types of information reported to CNDDB. Information on special status native plant populations and sensitive natural communities, the Combined Rapid Assessment and Relevé Form should be completed and submitted to CDFW's Vegetation Classification and Mapping Program (CDFW 2025)

Response 5-15

The comment requests that any special status species and natural communities detected during Project surveys be reported to the CNDDB at the link provided. These forms will be completed and submitted upon completion of the entitlement process with the County.

Comment 5-16

Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

Response 5-16

The comment states that the payment of the filing fees is required in order for the underlying Project approval to be operative, vested, and final. This comment is noted, and the fees will be paid upon Project approval and along with the Notice of Determination.

Comment 5-17

Conclusion

CDFW appreciates the opportunity to comment on the MND to assist the County in identifying and mitigating Project impacts on biological resources. To ensure significant impacts are adequately mitigated to a level less-than-significant, the feasible mitigation measures described above should be incorporated as enforceable conditions in the MND for the Project. CDFW requests an opportunity to review and comment on any response that the County has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines, § 15073(e)].

Questions regarding this letter or further coordination should be directed to Mary Ngo, Senior Environmental Scientist (Specialist), at Mary.Ngo@wildlife.ca.gov or (562) 292-8105 to schedule a meeting with CDFW.

Response 5-17

This comment provides a conclusion to the comment letter and contact information for further information, as necessary. No further response is warranted.

4.0 CORRECTIONS AND ADDITIONS

This Final IS/MND also includes changes that were made to clarify, correct, or supplement information provided in the Public Review Draft IS/MND. These changes and additions were made to respond to comments received during the public review period. The changes provided do not add significant new information or require substantial revisions that would require recirculation of the IS/MND. Changes to the IS/MND are indicated below under the respective EIR section heading, page number, and paragraph. Paragraph reference is to the first full paragraph on the page. Deletions are shown with ~~strikethrough~~ and additions are shown with double underline.

1. Page 37 of the IS/MND, MM BIO-1 is revised as follows:

MM BIO-1 **Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through ~~August 31~~ September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a ~~300~~ 500-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not required during Operation & Maintenance activities.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one

hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.

2. Page 38 of the IS/MND, MM BIO-2 is revised as follows:

MM BIO-2 **Swainson's Hawk (SWHA).** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.

3. Page 39 of the IS/MND, MM BIO-6 is revised as follows:

MM BIO-6 **Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow~~ing~~ the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW ~~during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site~~.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during

construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.

4. Page 39 of the IS/ND, MM BIO-7 is revised as follows:

MM BIO-7 **Desert Kit Fox.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy~~CDFW for written approval~~. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.

5. Page 40 of the IS/MND, MM BIO-8 is revised as follows:

MM BIO-8 **American Badger.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be

required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy~~CDFW for approval~~. The Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).

6. Page 40 of the IS/MND, MM BIO-9 is revised as follows:

MM BIO-9 **Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform ~~P~~protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).
- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be

maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

7. Page 40 of the IS/MND, MM BIO-10 is revised as follows:

MM BIO-10 Vegetation and Revegetation. To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.

8. Page 45 of the IS/MND, MM CUL-2 is revised as follows:

MM CUL-2 Unanticipated Discovery of Cultural Resources. In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the ~~The County shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of~~ the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
PROJECT NO. PRJ2023-002405 / CUP NO. RPPL202300513 / ENV NO. RPPL2023005138

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
1	**MM AQ-1: Minimize Exposure to Potential Valley Fever-Containing Dust.** Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan (VFMP) and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction: • An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever. • Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction. • Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.	A. Submit a Dust Control Plan to AVAQMD that addresses grading and ground disturbance, construction scheduling, soil stockpiles, water application, soil binding, monitoring, valley fever, and high wind. Provide the County with approved copy of the Dust Control Plan. B. Comply with Dust control Plan and measures while monitoring and keeping records of this mitigation measure. Present records to AVAQMD and the County upon request. C. Provide Valley Fever information and training on personal protective equipment to staff and onsite construction personnel, and	A. Prior to ground disturbance activities. Ground disturbance refers to any activities that may include clearing vegetation, grading, excavation, trenching, and drilling within the Project Site. B. During construction C&D. During construction	Permittee / Construction Manager	County of Los Angeles Department of Regional Planning (LACDRP) / AVAQMD

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	• Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators. • Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.	present records to AVAQMD and County upon request. D. Implement a Valley Fever Management Plan.			
2	**MM BIO-1: Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500-foot buffer (0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not be required during Operation & Maintenance activities.	A. Schedule vegetation removal outside of bird breeding season, if feasible B. Conduct a pre-construction nesting bird survey during the breeding season C. Retain a qualified biologist. D. Prepare report of nesting bird survey findings	A. Prior to vegetation removal, ground disturbance, construction, or demolition activities B, C, & D. Prior to the commencement of vegetation removal, ground disturbance, construction, demolition activities or site mobilization activities.	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.				
3	**MM BIO-2: Swainson's Hawk (SWHA).** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to	A. Conduct initial baseline monitoring and recording the event of Swainson's hawk nests and provide the log to the County upon request. B. Further monitoring and recording of the	A. Prior to ground disturbance and construction activities. B. Prior and during construction if active SWHA	Permittee	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. It construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.	SWHA nest shall continue as required by this mitigation measure. C. If SWHA nests are detected prior to or during construction, provide notes and records of nest monitoring upon request of the County.	nests are detected D. Prior and during construction		
4	**MM BIO-3: Worker Environmental Awareness Training**. A qualified biologist shall conduct a worker environmental awareness training (WEAT) program for all persons working on the Project prior to the onset of construction for construction, operation and maintenance, and decommissioning activities. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered shall be included in the training. Special-status species, including legal protection, penalties for violations, and Project specific protective measures shall also be discussed. Contact information for the qualified biologist and other useful wildlife-related contacts (e.g., CDFW, venomous snake humane relocation services, etc.) shall be included in the WEAT. Interpretation shall be provided for non- English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training shall be maintained at the worksite with the Project supervisor, and a handout containing this information shall be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective	A. Submit WEAT program to LACDRP upon request. B. Conduct an environmental education program for sensitive biological species that may be in the area C. Maintain copies of the training materials and handouts on-site.	A. Prior to the start of construction B & C. Prior to the start of construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	measures. The WEAT shall be sent to the County for review prior to implementation.				
5	**MM BIO-4: Trash Receptacles.** All trash and waste items generated by construction, operation and maintenance and decommissioning or crew activities shall be properly contained in a covered and locked trash receptacle and/or removed from the Project Site daily. All containers shall be wildlife-proof. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species.	Contain and remove trash and waste items generated by construction or crew activities	During construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP
6	**MM BIO-5: Common and Special-Status Wildlife Awareness.** All Project personnel shall visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on-site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during constructional phases of the Project (construction, O&M, and decommissioning), all excavated holes, ditches, or trenches greater than six (6) inches deep shall be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps shall be placed in excavations. After opening and before filling, such holes, ditches, and trenches shall be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) shall not contain monofilament netting. All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire	Visually check for animals in any materials and equipment stored on-site for one or more overnight periods; install security fencing per County Code standards	During construction activities, operation and maintenance , and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	shall be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.				
7	**MM BIO-6: Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist.. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.	A. Conduct burrowing owl surveys B. Stop work within listed buffers if burrowing owl individuals or sign is detected C. Report to County biologist of detection and to determine next steps	A. During survey season immediately prior to construction activities B & C. When burrowing owl individuals or sign are detected during construction or decommissioning.	Permittee/ Construction Manager	LACDRP, CDFW
8	**MM BIO-7: Desert Kit Fox.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be	A. Conduct desert kit fox surveys B. Prepare Desert Kit Fox Avoidance Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.		B. When occupied desert kit fox dens are detected during survey.		
9	**MM BIO-8: American Badger.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The	A. Conduct American badger surveys B. If determined that an active den cannot be avoided, prepare American Badger Eviction Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction B. Prior to construction	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).				
10	**MM BIO-9: Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities. If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented: • If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b). • Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or	A. Conduct protocol surveys B. Conduct nesting surveys if this species is detected foraging within 100 feet of the project site. C. Consult with CDFW for take authorization D. If floral resource will be removed or damaged, replace floral resource at a 1:1 ratio or as otherwise determined during any ITP application process. E. If any floral resource is found at the site, replant and manage the floral resources.	A, B & C. Prior to construction. C. Following completion of construction or as indicated by ITP. D. During operation and maintenance	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.				
11	**MM BIO-10: Vegetation and Revegetation.** To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.	A. Use rubber-tired vehicles, where feasible B. Provide County with seed mixes	A. During construction activities B. Prior to application of seed mixes	Permittee/ Construction Manager	LACDRP
12	**MM BIO-11: Panel Positioning.** To minimize "lake effect" related to adverse impacts to bird species, the panels shall be positioned overnight where they last tracked the sun or pre-positioned toward the east to capture sunrise (i.e., panels shall be in a close to vertical position) and provide documentation to the County upon request.	A. Position panels (overnight) in a close to vertical position and provide documentation to the County upon request.	During operation	Permittee/ Construction Manager	LACDRP
13	**MM CUL-1: Worker Environmental Awareness Program**. Prior to the start of ground disturbance, the Permittee shall hire a qualified archaeologist ("Project Archaeologist") to provide the construction crew with on-site training on the proper procedures to follow if cultural resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what such artifacts	A. Hire a qualified archaeologist to provide the WEAP for anticipated discovery of cultural resources B. Provide training and information to all individuals working on site	A & B. Prior to the start of ground disturbance activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	may look like when partially buried or wholly buried and then freshly exposed, a discussion of what prehistoric and historic-period archaeological deposits look like at the surface and when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and shall be provided to all individuals working on site.				
14	**MM CUL-2: Unanticipated Discovery of Cultural Resources.** In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).	A. Retain a Native American Monitor(s). See MM TCR-1 B. Contact Project Archaeologist should archaeological resources be discovered C. Notify Native American Monitor(s) if the resource is determined to be prehistoric D. Prepare a data recovery plan if archaeological resources are found and impacts cannot be avoided E. Submit documentation to the County and regional repository	A. Prior to construction B, C, D & E. During ground-disturbing activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
15	**MM CUL-3: Cultural Resources Monitoring.** The Project Archaeologist shall be onsite to monitor ground disturbing activities twice a week, or as otherwise determined by the lead agency in consultation with the consulting tribes referenced in MM TCR-1. Ground disturbing activities include clearing vegetation, grubbing, digging, pavement removal, grading, excavation, trenching, plowing, drilling, blasting, potholing/auguring, and stripping topsoil. The Project Archaeologist shall have the authority to increase or decrease the monitoring effort should the monitoring results indicate that a change is warranted. The Project Archaeologist shall consult with the Consulting Tribes (defined below) prior to increasing or decreasing the monitoring schedule. Monitoring requirements shall end once ground disturbing activities are complete.	A. Monitor ground disturbing activities twice a week B. Consult with Consulting Tribes to define monitoring schedule	A &B. During ground disturbing activities	Permittee/ Construction Manager	LACDRP
16	**MM CUL-4: Unanticipated Discovery of Paleontological Resources.** Prior to start of ground disturbance, the construction crew shall participate in on-site training on the proper procedures to follow if paleontological resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what paleontological resources may look like when partially buried or wholly buried and then freshly exposed, a discussion of what paleontological resources look like when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and should be provided to all individuals working on site. In the event that paleontological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and a qualified paleontologist who meets	A. Conduct a Worker Environmental Awareness Program for unanticipated discovery of paleontological resources B. Contact a qualified paleontologist who meets the Society of Vertebrate Paleontology guidelines C. If the find requires further evaluation and/or extraction, follow the fossil discovery protocols.	A. Prior to the start of ground disturbance activities B & C. During the ground-disturbing activities D. During ground disturbance activities	Permittee/ Construction Manager	LACDRP

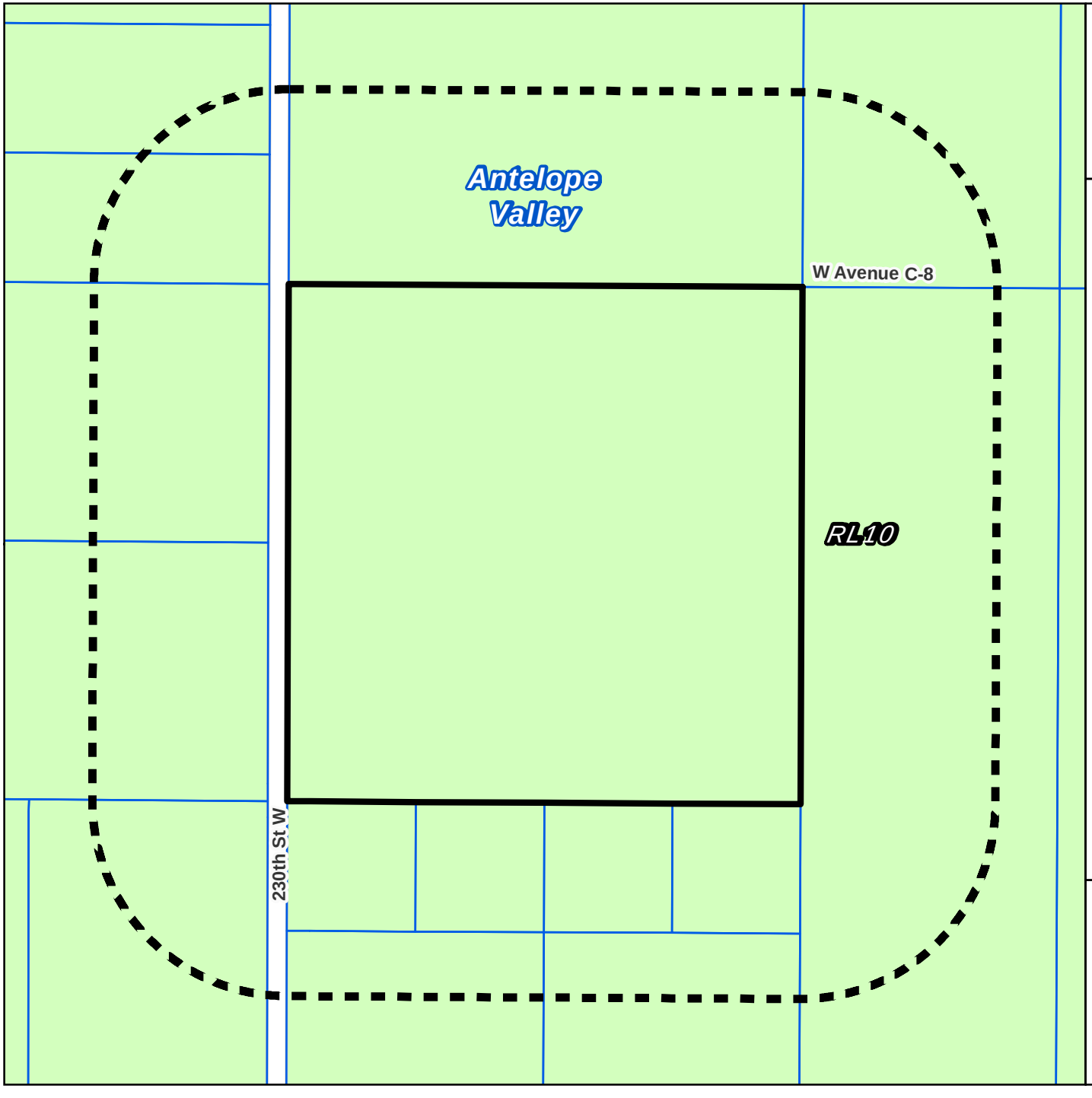
#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	the Society of Vertebrate Paleontology guidelines shall be contacted immediately to evaluate the resource. If the find is large enough to warrant further evaluation and/or extraction, then the following fossil "discovery" protocol shall be followed: a) The paleontologist shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. b) The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study, or report. c) Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations. During ground disturbance activities, the Applicant shall submit a letter to the County for the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered.	D. Submit a letter to the County			
17	**MM CUL-5: Inadvertent Discovery of Human Remains.** If human remains or funerary objects are encountered during construction, all ground disturbance activities within 100 feet of the discovery shall be suspended and the construction manager shall immediately notify the County coroner pursuant to State Health and Safety Code §7050.5. This state code shall be enforced for the duration of the Project. If the human remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission (NAHC). The NAHC shall identify and immediately notify the Most Likely Descendant (MLD) of the deceased Native American. Within 48	A. Suspend all ground disturbance activities within 100 feet of a discovery if human remains or funerary objects are encountered. B. Notify County coroner C. Coroner to notify	A, B, and C. During construction activities	Permittee/ Construction Manager	LACDRP, MLD and/or Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	hours of being granted access to the site, the MLD shall complete the inspection of the site of the discovery and make recommendations to the Applicant/landowner for the treatment or disposition of the human remains and any associated funerary objects. All measures, as required by the County, shall be implemented under the supervision of the MLD and/or Tribal Monitor.	NAHC			
18	**MM TCR-1: Tribal Monitor.** Prior to the commencement of any ground disturbance activities, the Permittee shall retain a Tribal monitor(s) (Tribal Monitor) who is approved by the Fernandeno Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians) (the "Consulting Tribes") to provide tribal monitoring/consulting services alongside the Project Archaeologist in accordance with MM CUL-3. The Permittee shall submit a letter to the County of Los Angeles (County) to confirm the name and contact information of the Tribal Monitor(s) who is retained for the Project.	A. Retain Tribal Monitor(s) approved by FTBMI and YSMN B. Submit a letter to County to confirm name and contact information of the Tribal Monitor(s)	A & B. Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP, Tribal Monitors
19	**MM TCR-2: Tribal Cultural Resources Monitoring Plan.** Prior to the commencement of any ground disturbance activities, the Project Archaeologist, in consultation with the Consulting Tribes shall prepare and submit a Tribal Cultural Resources Monitoring and Treatment Plan (Monitoring and Treatment Plan) to the County for review. The Monitoring and Treatment Plan shall be approved by and the Consulting Tribes before those activities commence and the approved plan shall be submitted to the County. The Monitoring and Treatment Plan shall include methods for monitoring ground disturbance activities; procedures to follow when resources are discovered; protocol for identifying and evaluating tribal cultural resources; and shall incorporate measures to mitigate potential impacts to tribal cultural resources as provided in MM TCR-5, below.	A. Submit a Monitoring and Treatment Plan that is approved by the Consulting Tribes to the County for file record.	Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP
20	**MM TCR-3: Worker Environmental Awareness Program (WEAP) Training.** Prior to the commencement of any ground disturbance activities, all project construction managers and	A. Project Archaeologist and Tribal Monitor(s) to administer tribal	A. Prior to commencement of any ground	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	workers shall attend a tribal cultural resources awareness training. The Project Archaeologist and the Tribal Monitor shall administer the training to inform construction managers and workers about the types of resources that could be encountered; the procedures to follow if tribal cultural resources are discovered; and the potential penalties for failing to adhere to applicable laws and regulations. The procedures include work curtailment or redirection and immediate contact of the on-call archaeologist and, if appropriate, the FTBMI and SMBMI representative. Construction managers shall maintain a log to document all construction personnel who have completed the training. The log shall be provided to the County upon request within five business days. The training requirement should be stated on all construction plans. The Tribal representatives from the Consulting Tribes shall be allowed to attend and participate in the training. The WEAP required under this measure may be combined with the WEAP described in MM CUL-1.	cultural resources awareness training to all construction managers and workers. B. Log all construction personnel who have completed the training C. Provide log to County upon request within five business days	disturbance activities B&C. Prior to or during ground disturbance activities.		
21	**MM TCR-4: Tribal Monitoring.** Tribal monitor(s) shall be present onsite to monitor ground disturbing activities based on a schedule coordinated and agreed by the Consulting Tribes or established by the County. Tribal monitor(s) shall monitor ground disturbing activities when the Project Archaeologist is onsite in accordance with MM CUL-3. If the Project's scheduled activities require the Tribal Monitor to leave the Project Site for a period of time and return, confirmation shall be submitted to the Tribes by the Permittee, in writing, upon completion of each set of scheduled activities and five (5) days' notice (if possible) shall be submitted to the Tribes by the Permittee, in writing, prior to the start of each set of scheduled activities. The Project Archaeologist and Tribal Monitor shall complete a log documenting all ground disturbance activities monitored, the locations where those activities occurred, the types of soils involved, and any tribal cultural resources	A. Tribal monitor(s) to monitor ground disturbing activities when Project Archaeologist is onsite B. Confirmation of scheduled activities to the Tribes C. Complete log documenting ground disturbance activities, locations, types of soil, and resources encountered	During ground disturbing activities based on schedule coordinated and agreed by the Consulting Tribes	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	encountered. Monitoring shall end when ground disturbance activities are completed, or earlier if a Tribal Monitor has determined that the site has a low potential for impacting tribal cultural resources. Within 30 days after monitoring has ended, the Project Archaeologist and Tribal Monitor shall submit the logs to the County and the Permittee shall submit in writing to the Consulting Tribes that all scheduled activities are complete.	D. End monitoring when ground disturbance activities are completed E. Submit logs to the County and Consulting Tribes			
22	**MM TCR-5: Discovery of Tribal Cultural Resources.** If tribal cultural resources are encountered during construction, all ground disturbance activities within 100 feet of the find shall stop until the Tribal Monitor and the Project Archaeologist can evaluate the significance of the find and an area barrier shall be constructed. Construction activities may continue in other areas of the project site. The Project Archaeologist shall develop a research design including a plan to evaluate the resource for significance under CEQA criteria pursuant to Public Resources Code Section 21074. The archaeologist and the Consulting Tribes shall confer regarding the research design, evaluation efforts, and the resource's archaeological significance. If the discovery proves significant as determined by the Project Archaeologist and Consulting Tribes shall recommend appropriate measures subject to County's approval, to mitigate potential impacts to tribal cultural resources. Such measures may include but are not limited to resource avoidance, reburial, and preservation for educational purposes. Should it occur that avoidance, preservation in place, or on-site reburial are not an option for treatment, the Consulting Tribes and Project Archaeologist shall develop a curation agreement to be approved by the County and agreed between landowner and museum. The agreement may include legal and physical transfer of the collections and associated recordation, fees, and maintenance of the collection.	A. Stop ground disturbance activities within 100 feet of the find until the Tribal Monitor and Project Archaeologist can evaluate and construct a barrier B. Develop research design and plan to evaluate the resource C. Recommend appropriate measures to mitigate potential impacts to tribal cultural resources D. Develop curation agreement E. Prepare and submit a final monitoring report	A, B, C, D & E. During construction if tribal resources are encountered F. Within 90 days after monitoring has ended	Permittee/ Construction Manager	LACDRP Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	The Consulting Tribes shall coordinate with the Permittee to ensure that all measures approved by the County are implemented. Within 90 days after monitoring has ended, the Project Archaeologist shall prepare and submit a final monitoring report documenting all encountered tribal cultural resources, the significance of the resources, and the treatment of the resources to the tribes for review and comment. An approved final report shall be submitted to the California Native American Heritage Commission, local CHRIS Information Center, the County, and Consulting Tribes.	F. Submit final report to California Natie American Heritage Commission, local CHRIS Information Center, County, and Consulting Tribes			



LAND USE POLICY

500-FOOT RADIUS MAP

PROJECT NO. PRJ2023-002405

CUP RPPL2023005137

RL10 - Rural Land 10 (1 du / 10 gross ac)

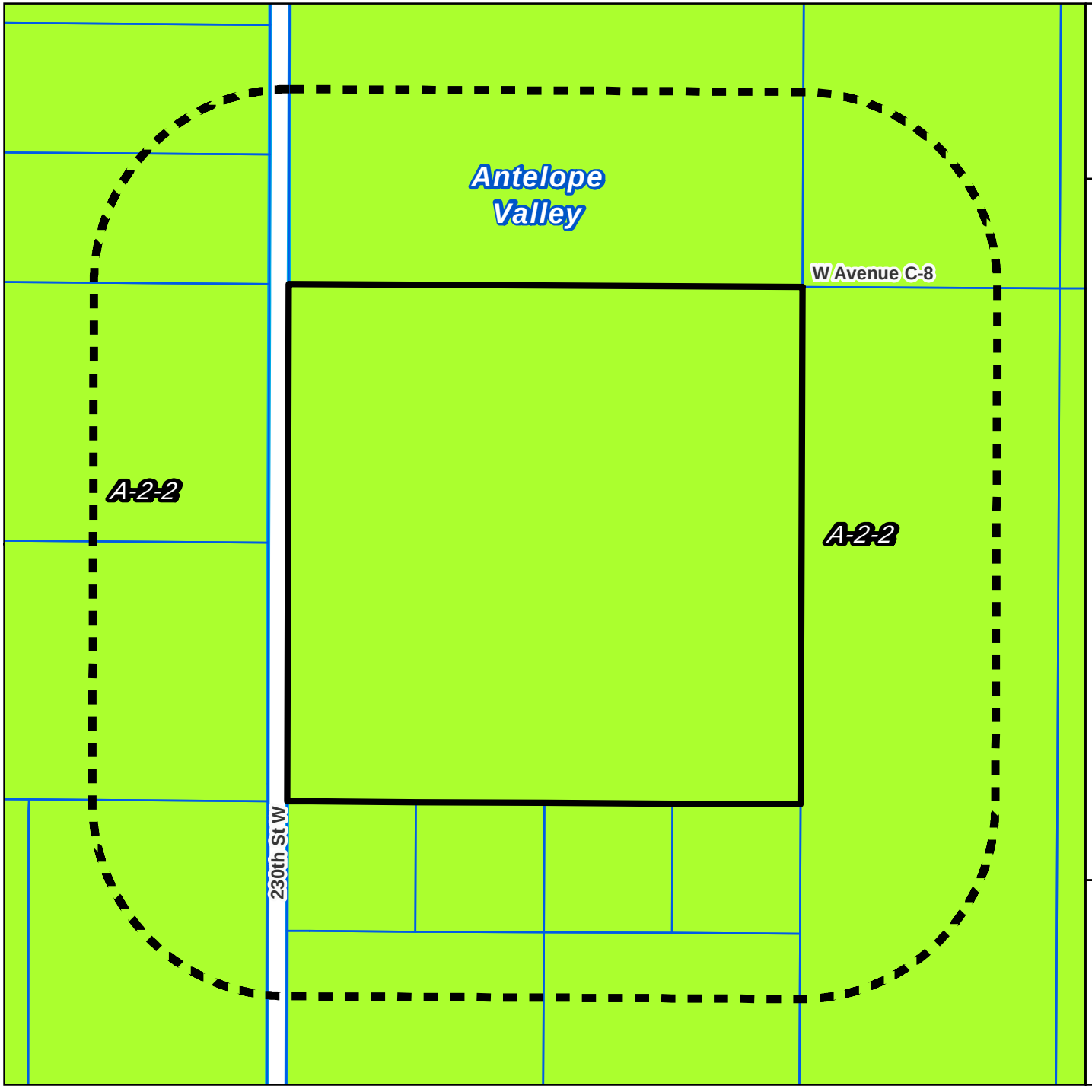
Feet

0 250 500

N

LA COUNTY PLANNING

LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012



ZONING

500-FOOT RADIUS MAP

PROJECT NO. PRJ2023-002405

CUP RPPL2023005137

A-2 - Heavy

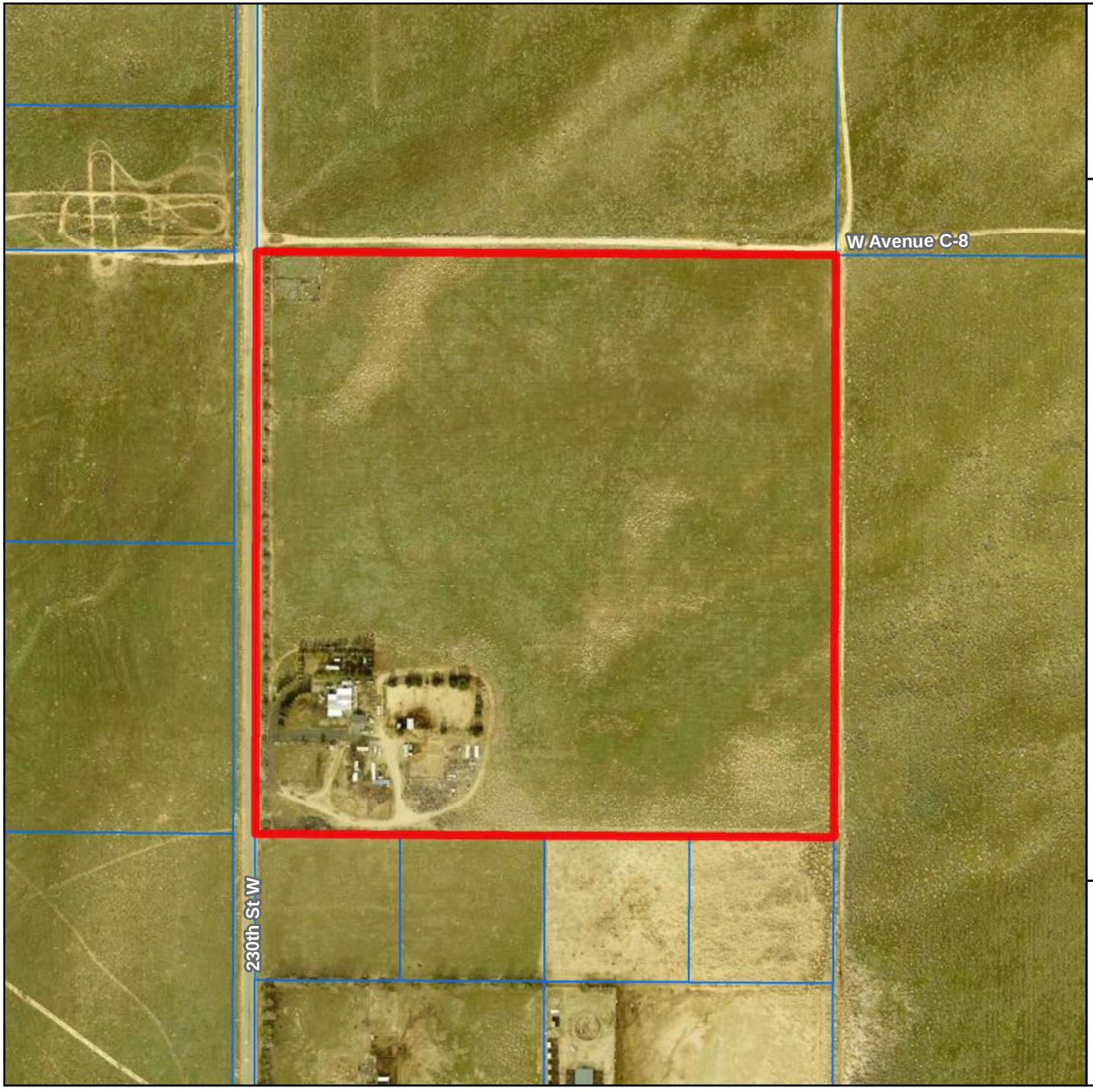
Feet

0 250 500

N

LA COUNTY PLANNING

LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012



AERIAL IMAGERY

SITE-SPECIFIC MAP

PROJECT NO. PRJ2023-002405
CUP RPPL2023005137

Digital Ortho Aerial Imagery:
Los Angeles Region Imagery Acquisition Consortium (LARIAC)
2023

Feet
0 250 500

N

LA COUNTY PLANNING

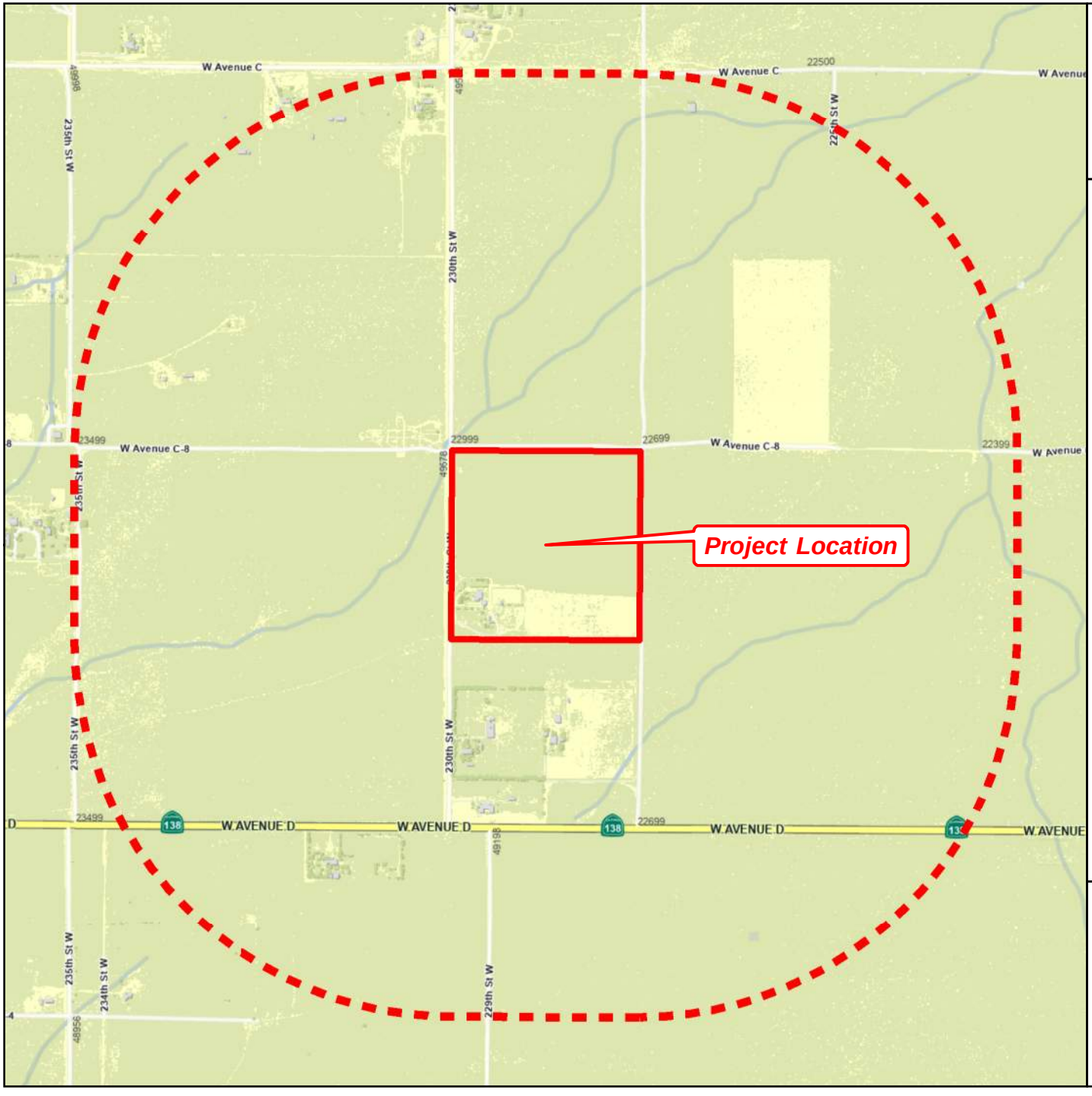
LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

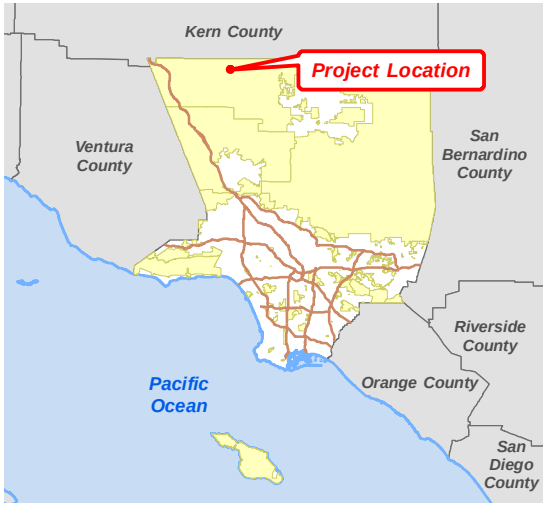
HALF-MILE RADIUS

LOCATOR MAP

PROJECT NO. PRJ2023-002405

CUP RPPL2023005137





Feet

0 600 1,200

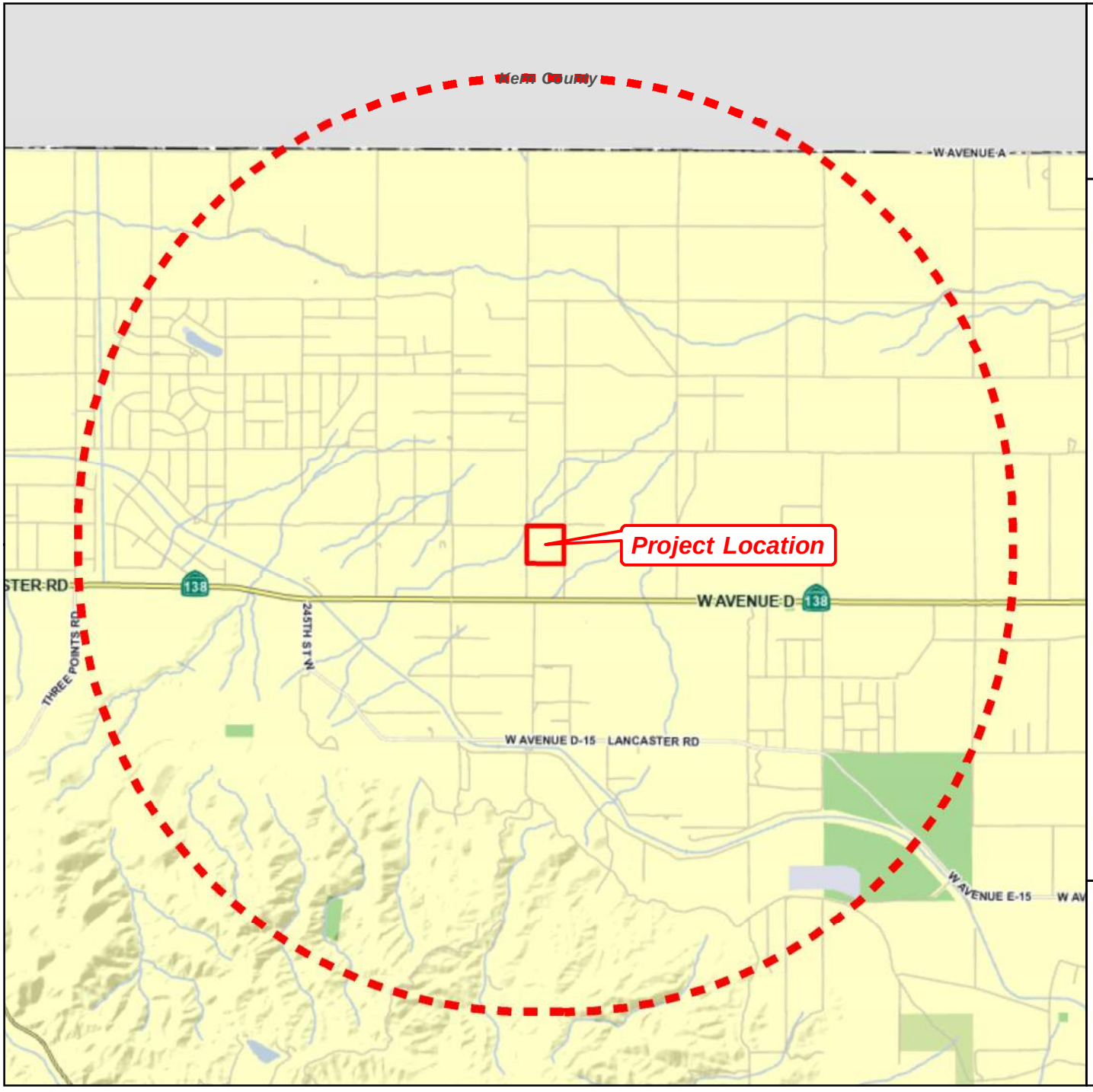
LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

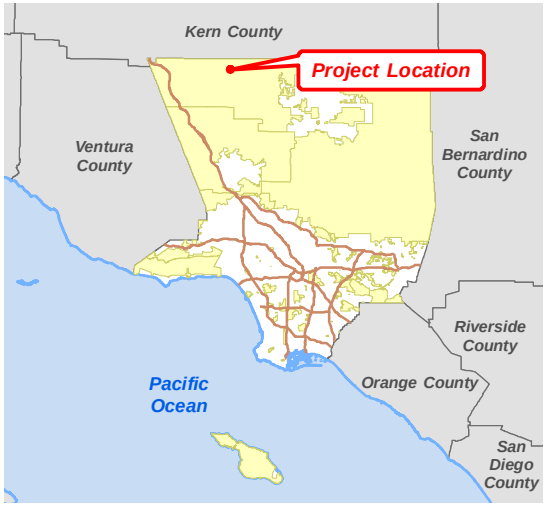
3-MILE RADIUS

LOCATOR MAP

PROJECT NO. PRJ2023-002405

CUP RPPL2023005137





Feet

0 4,000 8,000

N

LA COUNTY PLANNING

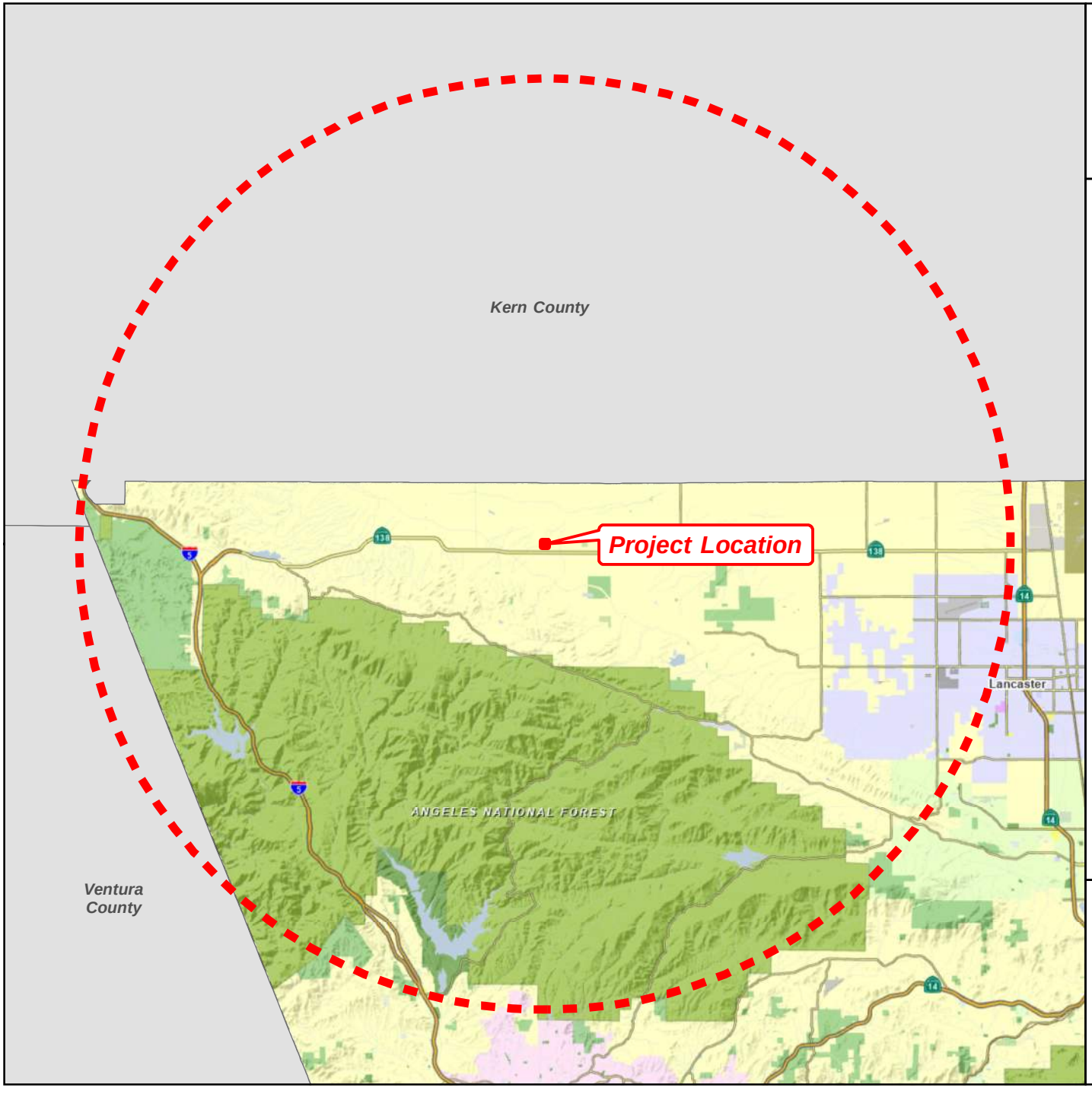
LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

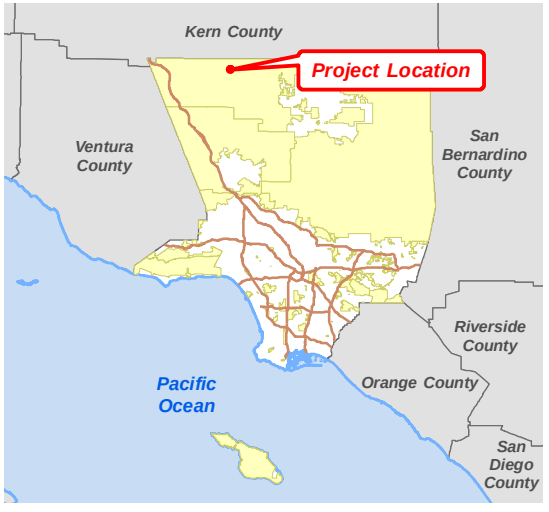
20-MILE RADIUS

LOCATOR MAP

PROJECT NO. PRJ2023-002405

CUP RPPL2023005137





Miles

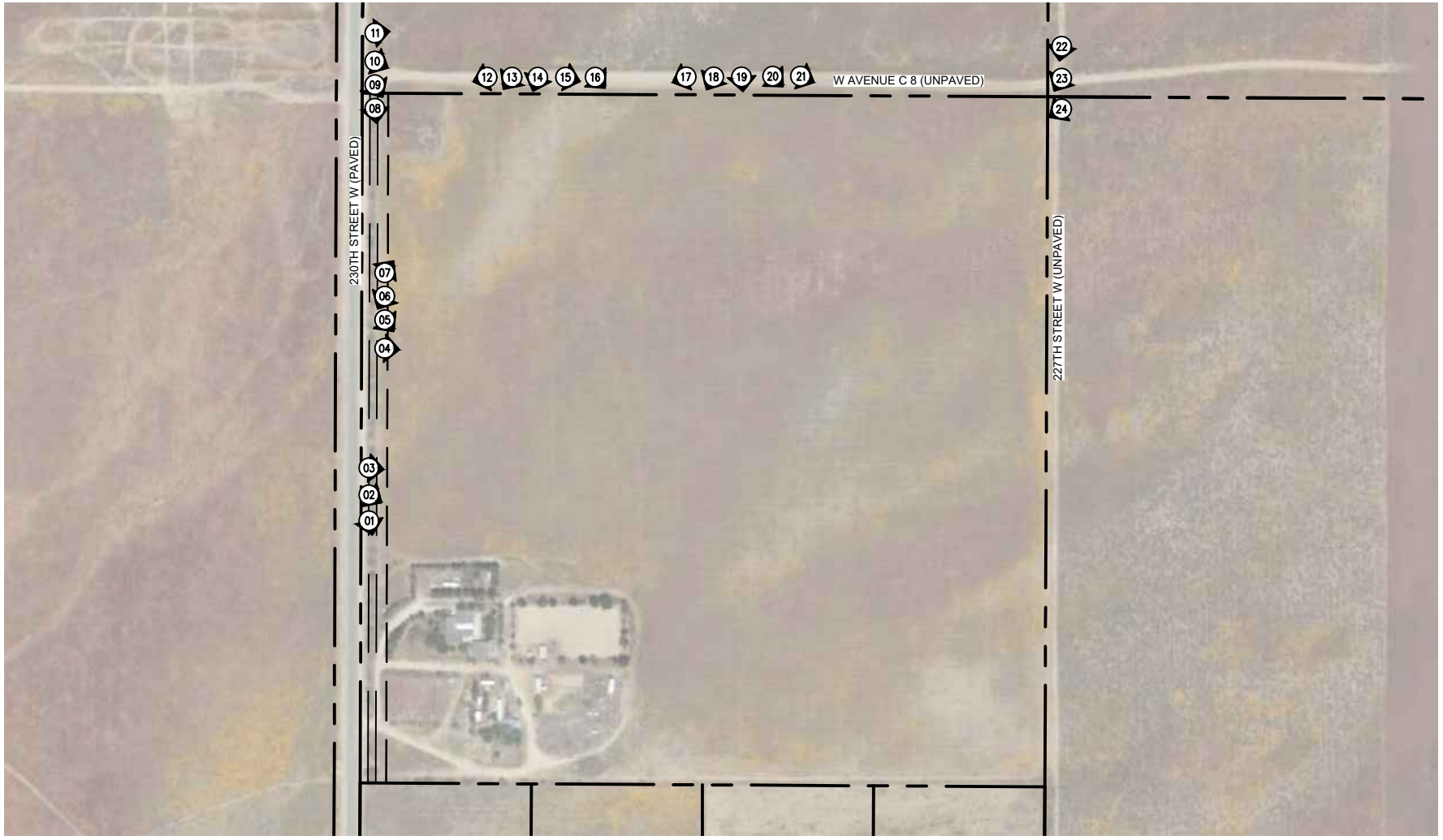
0 5 10

N

LA COUNTY PLANNING

LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

PHOTO KEY MAP



LEGEND

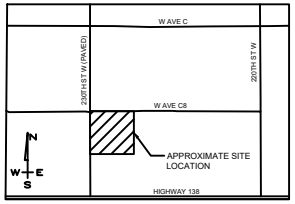
XX	PHOTO COUNT, DIRECTION, & LOCATION
	PROPERTY LINE SETBACK
	EXISTING PROPERTY LINE
	EASEMENT

SITE INFORMATION

PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC

GENERAL NOTES

1. PICTURES CORRELATING TO THE PHOTO COUNT CAN BE FOUND ON THE ATTACHED DOCUMENT



VICINITY MAP

NTS

GRAPHIC SCALE IN FEET

0 150 300 600

NORTH

Kimley»Horn

© 2023 KIMLEY-HORN AND ASSOCIATES, INC.

660 S. FIGUEROA ST, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040

PHOTO KEY MAP PICTURES

01



02


North West Elevation
122°SE (T) 34°46'46"N, 118°32'12"W ±13ft 2829ft
13 Oct 2023, 08:04:29

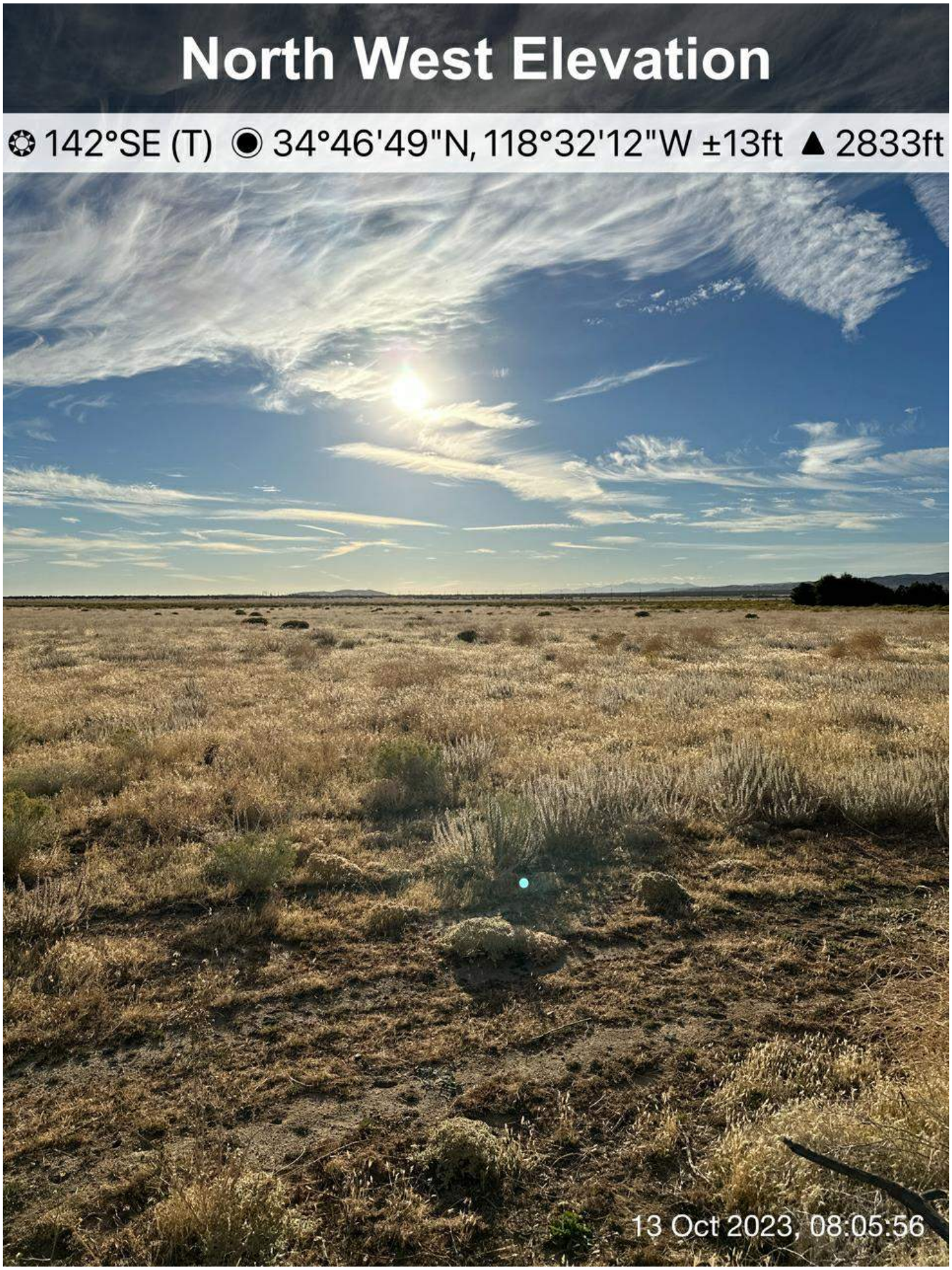
03


West Elevation
96°E (T) 34°46'46"N, 118°32'12"W ±13ft 2830ft
13 Oct 2023, 08:04:31

04


West Elevation
95°E (T) 34°46'49"N, 118°32'12"W ±13ft 2833ft
13 Oct 2023, 08:05:53

05


North West Elevation
142°SE (T) 34°46'49"N, 118°32'12"W ±13ft 2833ft
13 Oct 2023, 08:05:56

06


North East Elevation
209°SW (T) 34°46'49"N, 118°32'12"W ±13ft 2831ft
13 Oct 2023, 08:06:04

07


South West Elevation
37°NE (T) 34°46'49"N, 118°32'12"W ±13ft 2831ft
13 Oct 2023, 08:06:09

08


North Elevation
174°S (T) 34°46'54"N, 118°32'12"W ±13ft 2827ft
13 Oct 2023, 08:07:31

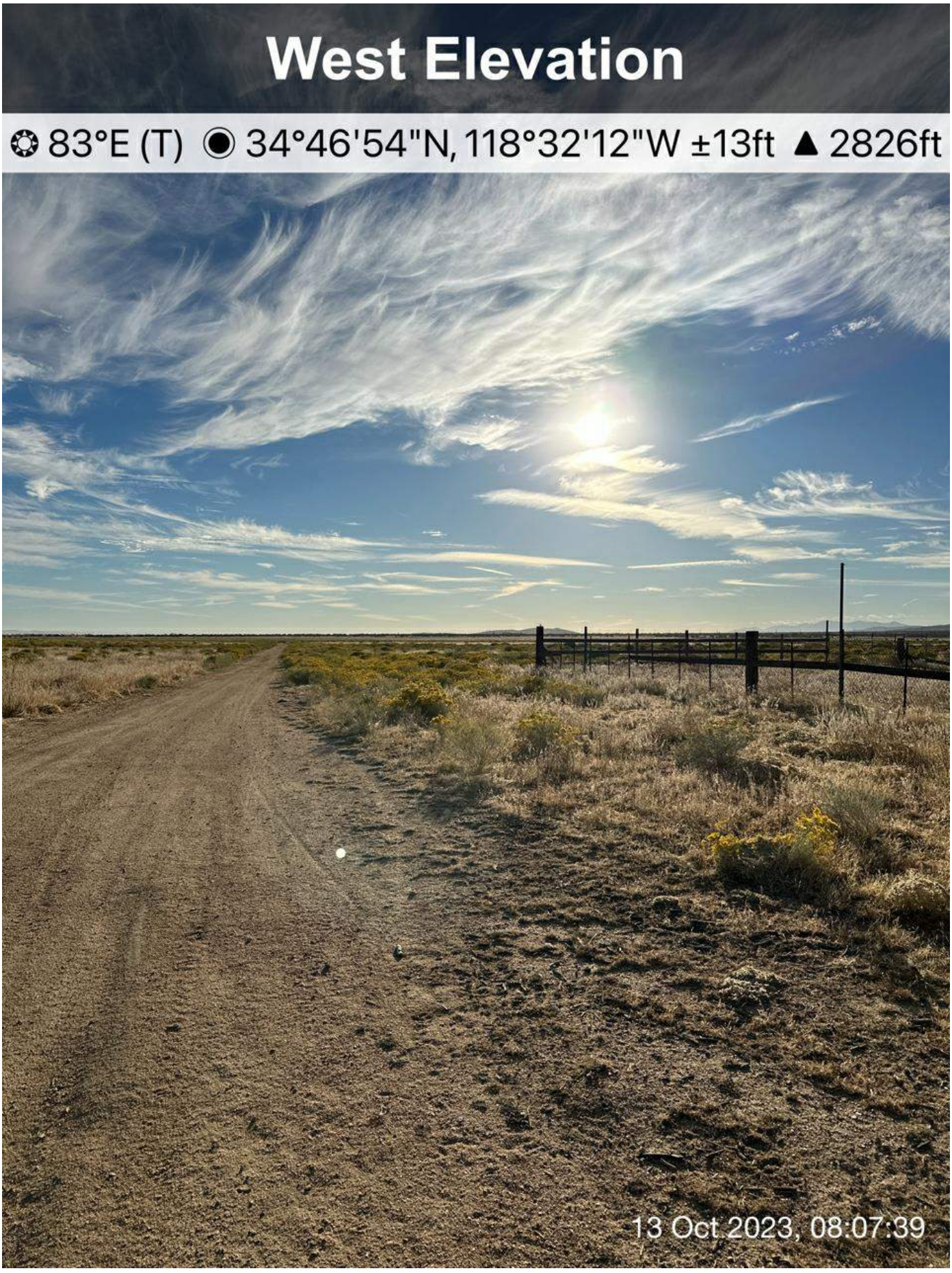
09


North West Elevation
148°SE (T) 34°46'54"N, 118°32'12"W ±13ft 2827ft
13 Oct 2023, 08:07:33

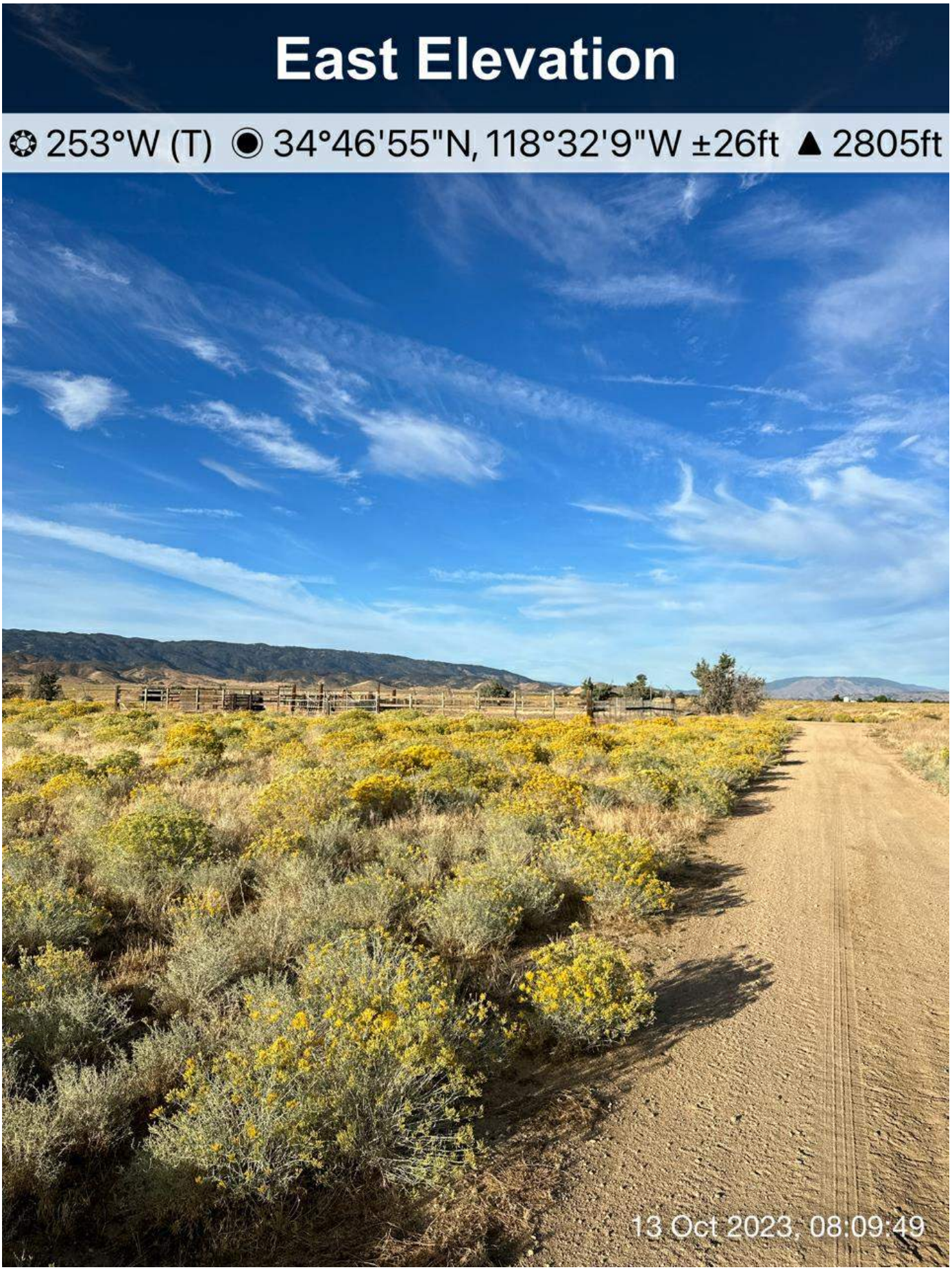
10


North West Elevation
117°SE (T) 34°46'54"N, 118°32'12"W ±13ft 2827ft
13 Oct 2023, 08:07:37

11


West Elevation
83°E (T) 34°46'54"N, 118°32'12"W ±13ft 2826ft
13 Oct 2023, 08:07:39

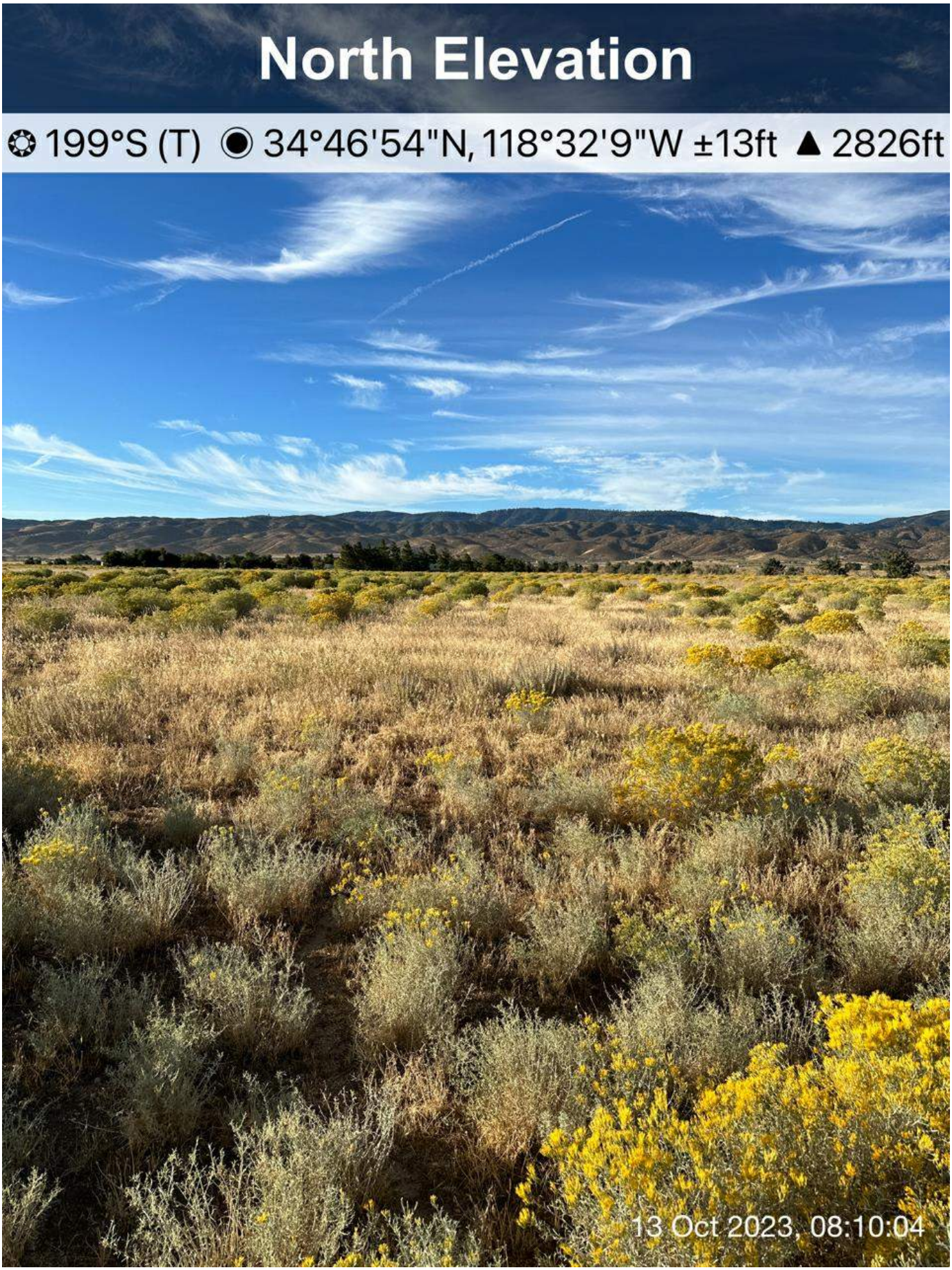
12


East Elevation
253°W (T) 34°46'55"N, 118°32'9"W ±26ft 2805ft
13 Oct 2023, 08:09:49

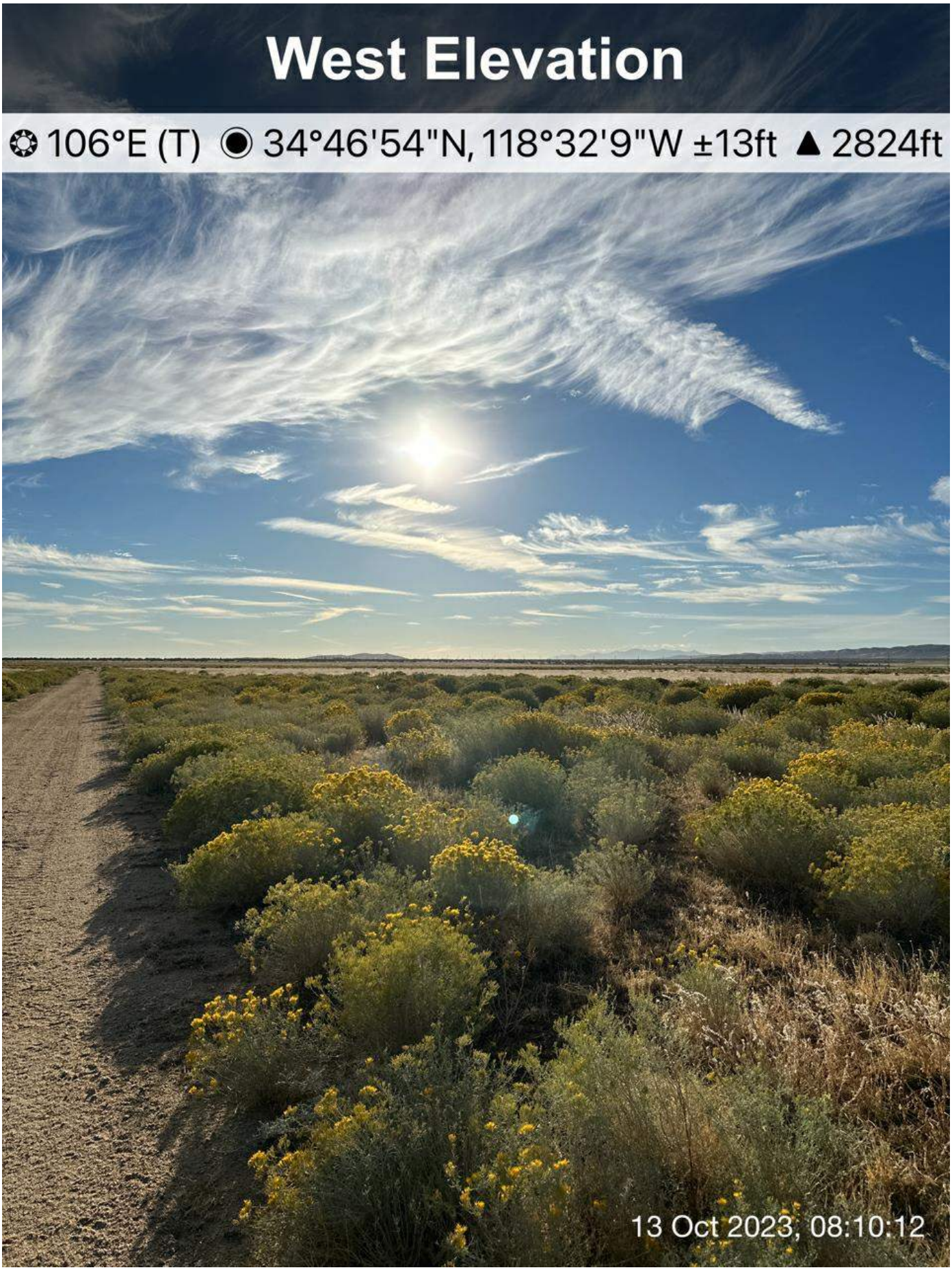
13


North East Elevation
216°SW (T) 34°46'54"N, 118°32'9"W ±13ft 2826ft
13 Oct 2023, 08:09:52

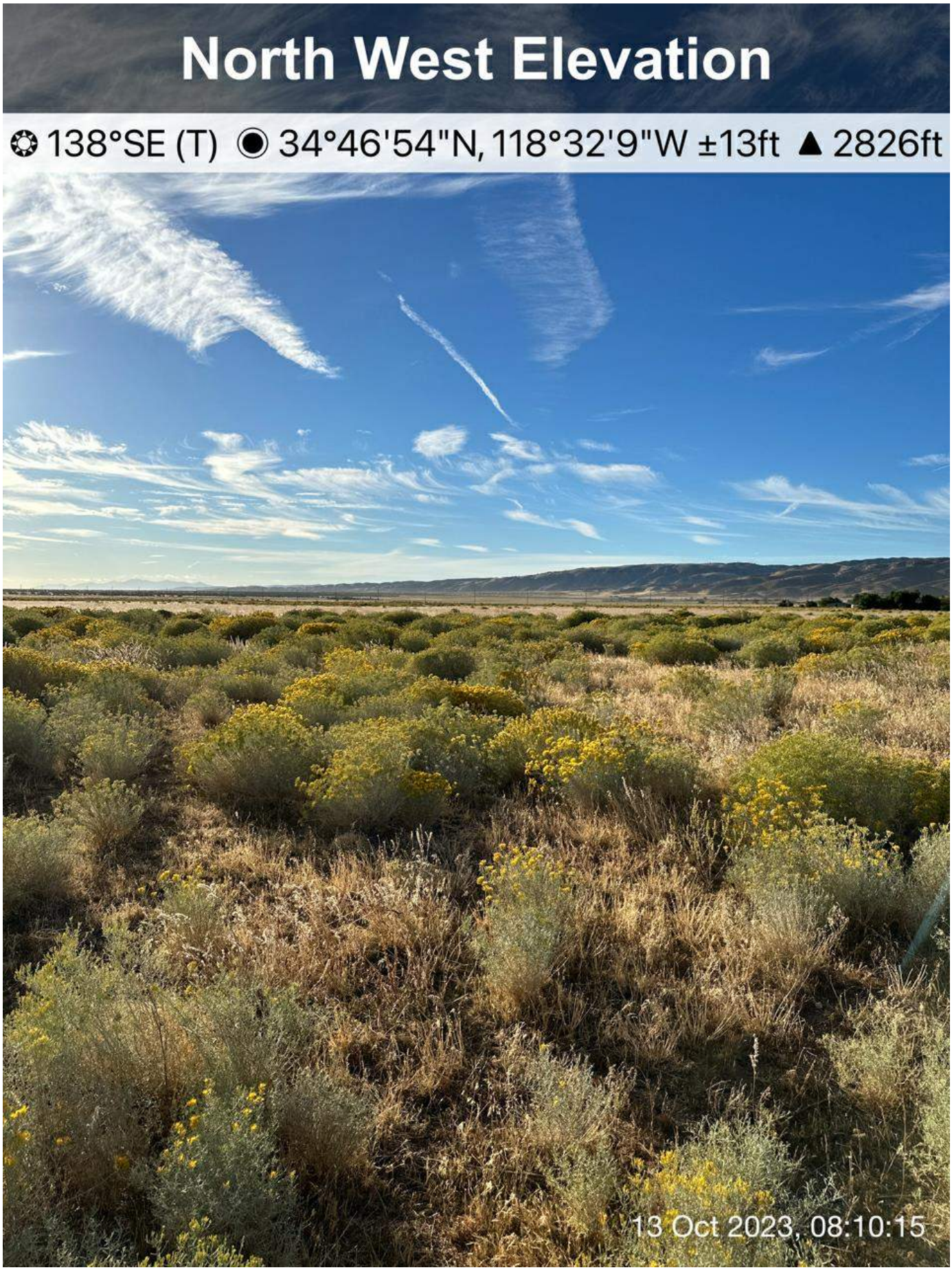
14


North Elevation
199°S (T) 34°46'54"N, 118°32'9"W ±13ft 2826ft
13 Oct 2023, 08:10:04

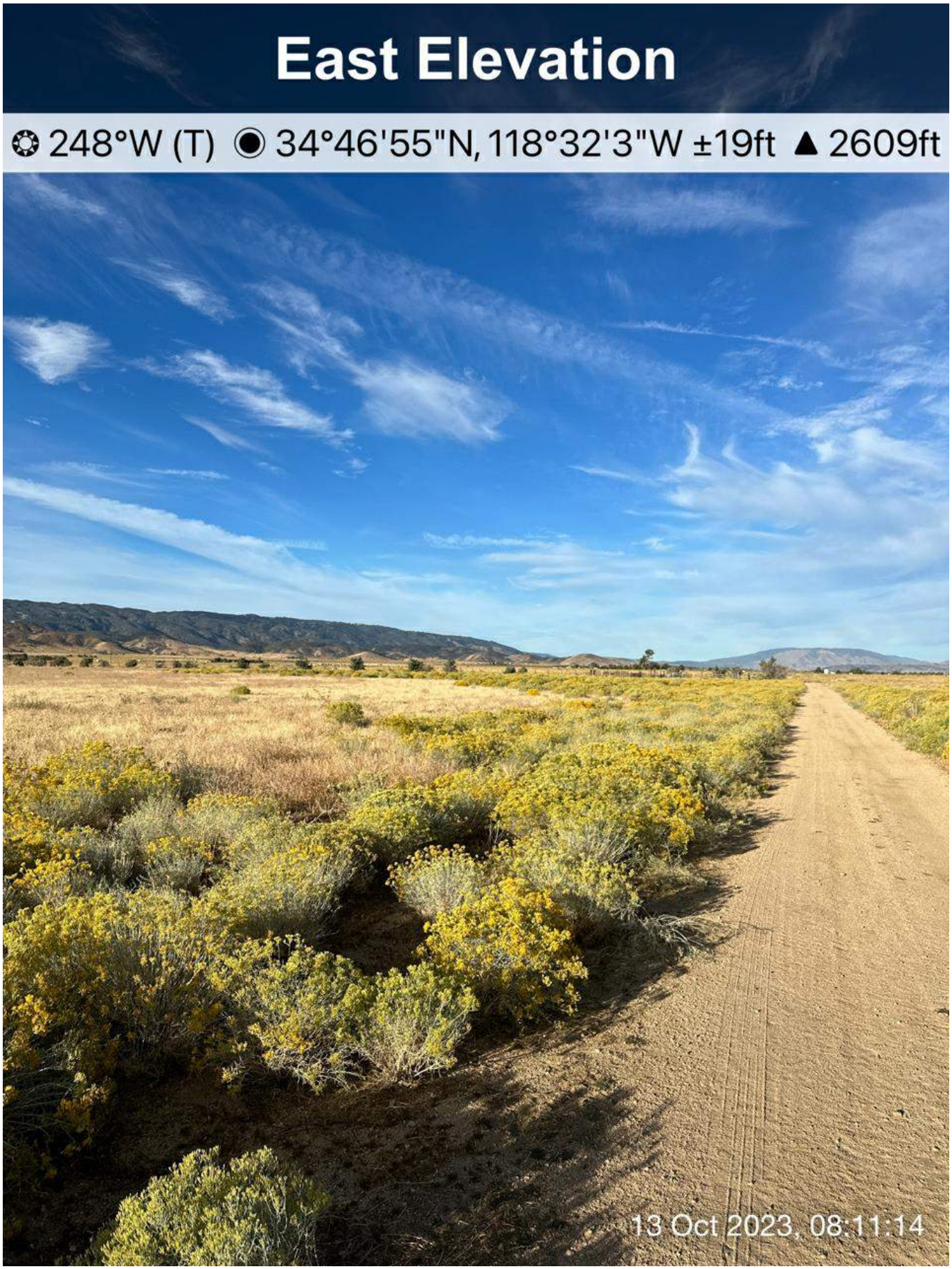
15


West Elevation
106°E (T) 34°46'54"N, 118°32'9"W ±13ft 2824ft
13 Oct 2023, 08:10:12

16


North West Elevation
138°SE (T) 34°46'54"N, 118°32'9"W ±13ft 2826ft
13 Oct 2023, 08:10:15

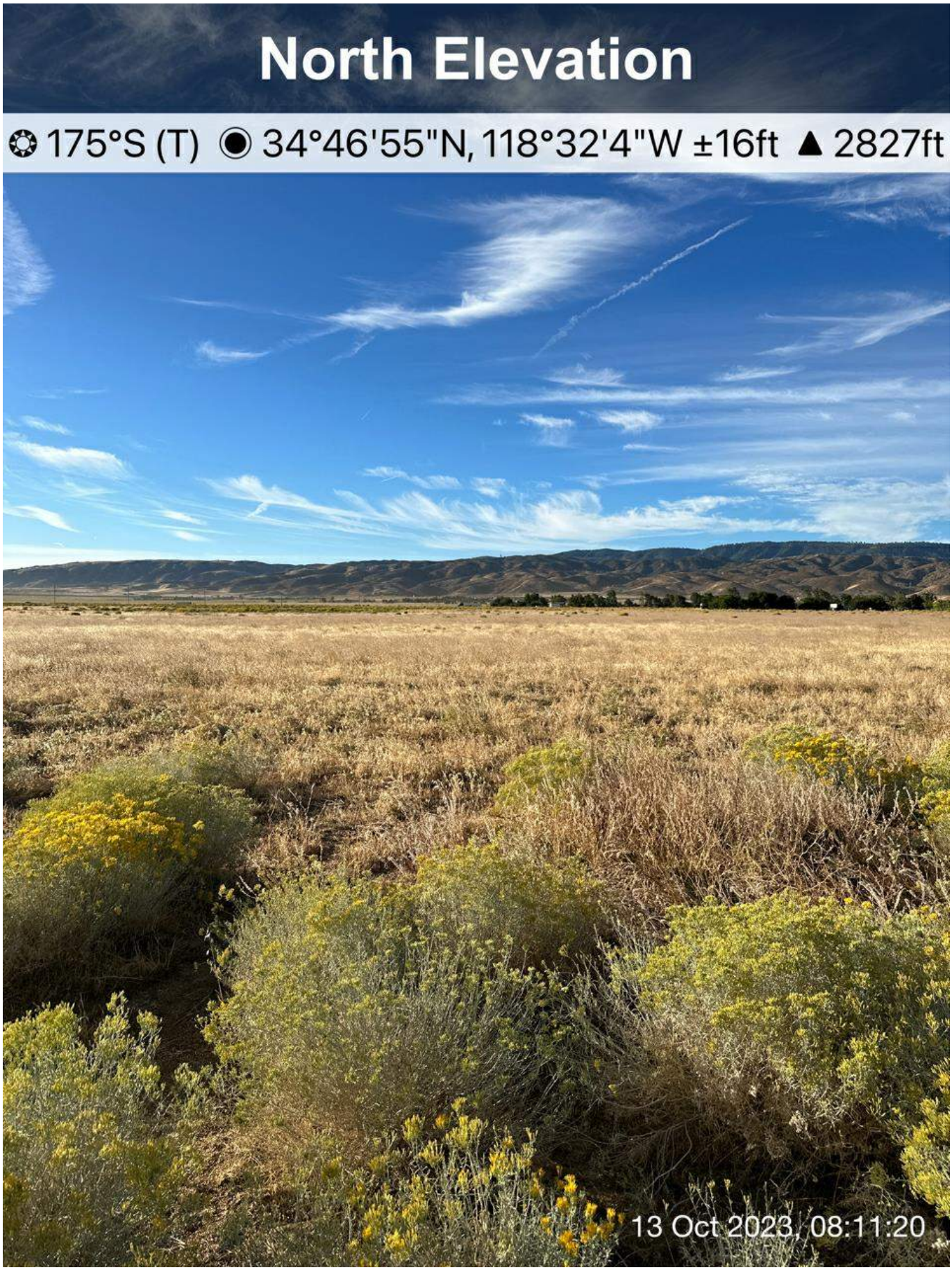
17


East Elevation
248°W (T) 34°46'55"N, 118°32'3"W ±19ft 2609ft
13 Oct 2023, 08:11:14

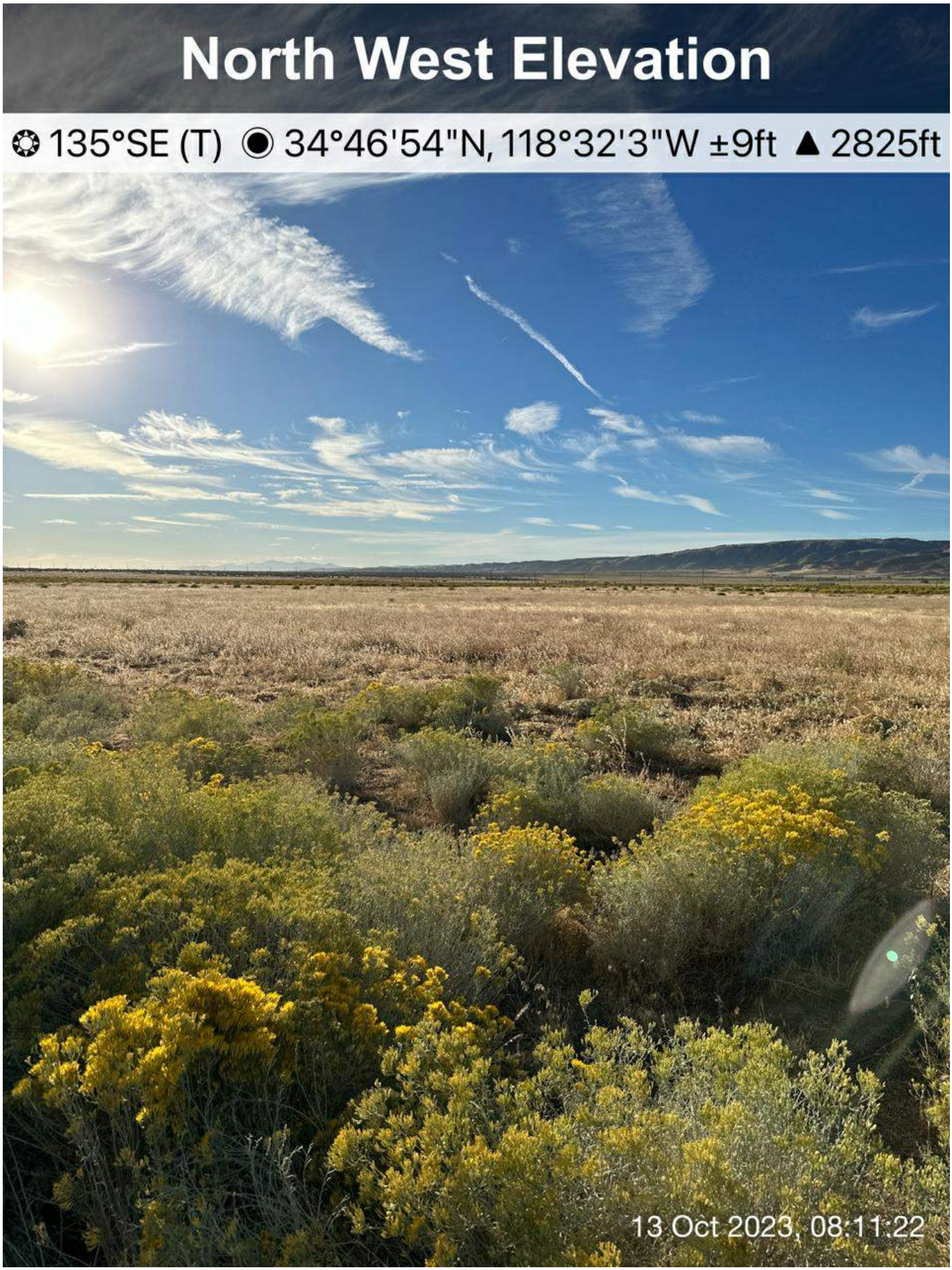
18


North East Elevation
209°SW (T) 34°46'54"N, 118°32'4"W ±16ft 2827ft
13 Oct 2023, 08:11:17

19


North Elevation
175°S (T) 34°46'55"N, 118°32'4"W ±16ft 2827ft
13 Oct 2023, 08:11:20

20


North West Elevation
135°SE (T) 34°46'54"N, 118°32'3"W ±9ft 2825ft
13 Oct 2023, 08:11:22

21


North West Elevation
115°SE (T) 34°46'54"N, 118°32'3"W ±13ft 2825ft
13 Oct 2023, 08:11:29

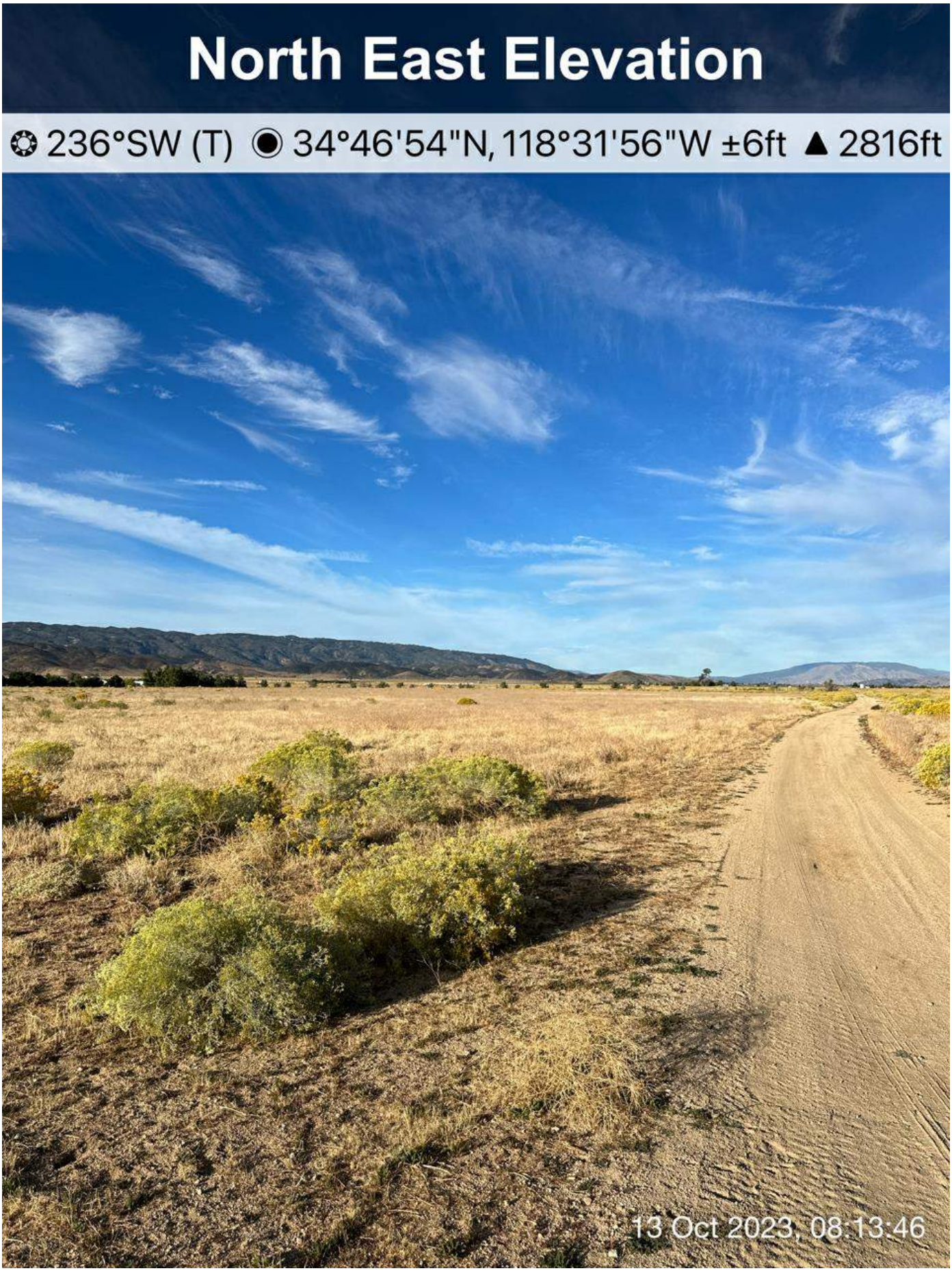
22


North Elevation
189°S (T)
34°46'54"N, 118°31'56"W ±13ft
2814ft
13 Oct 2023, 08:13:40

23


North East Elevation
210°SW (T)
34°46'54"N, 118°31'56"W ±6ft
2815ft
13 Oct 2023, 08:13:43

24


North East Elevation
236°SW (T) 34°46'54"N, 118°31'56"W ±6ft 2816ft
13 Oct 2023, 08:13:46

THIS EXHIBIT IS SIMULATED FROM THE SOUTHWESTERN CORNER OF THE PROJECT SITE LOOKING NORTHEAST ACROSS THE PROJECT SITE



PRE-PROJECT

NOT TO SCALE



POST-PROJECT

NOT TO SCALE

No.	REVISIONS	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

© 2023 KIMLEY-HORN AND ASSOCIATES, INC.

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT	099997002
DATE	10/27/2023
SCALE	AS SHOWN
DESIGNED BY	BC
DRAWN BY	BC
CHECKED BY	CY

EXISTING AND FUTURE CONDITIONS PHOTO SIMULATION

230TH STREET SOLAR
PREPARED FOR
RPCA SOLAR 12, LLC
LOS ANGELES COUNTY CALIFORNIA

SHEET NUMBER
X.X

Plotted By:Crump, Brenna Sheet Set:Kha Layout:Layout1 October 27, 2023 10:44:26am K:\LDT_ENERGY\RPCA Ground-mount\099997002 RPCA 230th St Exhibit E\06_CAD_Exhibits\Solar Rendering.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

EXHIBIT J AGENCY CORRESPONDENCE

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

MARK PESTRELLA, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

December 23, 2024

IN REPLY PLEASE
REFER TO FILE: LD-4

TO: Samuel Dea
North County Development Services
Department of Regional Planning

Attention Soyeon Choi

FROM: James Chon
Land Development Division

CONDITIONAL USE PERMIT (RPPL2023005137)
ASSESSOR'S MAP BOOK 3278, PAGE 25, PARCEL 1
UNINCORPORATED LANCASTER

As requested, Public Works reviewed the zoning permit application and site plan for the proposed project. The project proposes a five-megawatt, ground-mounted, commercial solar and a five-megawatt, accessory, battery energy storage system facility located on approximately 29 acres of a 40-acre parcel.

☒ Public Works recommends that the conditions shown below be applied to the project if ultimately approved by the advisory agency.

☐ Public Works has comments on the submitted documents; therefore, a Public Hearing shall NOT be scheduled until the comments have been addressed.

1. Street

1.1. Prior to issuance of a grading or building permit, submit street improvement plans to Public Works, through the EPIC-LA portal under "Public Improvement Plans: Street Plans," that reflects the following for review and approval:

Be advised that we currently have no known County construction project within the limits of your project. Should a County project be scheduled and constructed ahead of the applicant's development, a pavement moratorium may be imposed that would restrict any pavement work for two

years. Exceptions could be made if acceptable rehabilitation measures are provided. The applicant is encouraged to monitor https://pw.lacounty.gov/gmed/lacroads/Find.aspx periodically to determine if any future County projects have been scheduled or to determine whether a pavement moratorium currently exist along streets fronting the project location.

1.1.1. Make an offer of private and future street right-of-way, 32 feet from the street centerline, along the property frontage on West Avenue C-8, 227th Street West, and the southerly side of the property line.

1.1.2. Dedicate a 10-foot slope easement beyond the offer of all private and future street.

For questions regarding the dedication process, contact Diego Rivera of Public Works, Land Development Division, at (626) 458-4915 or dirivera@pw.lacounty.gov.

1.1.3. Construct driveway approaches on 230th Street West, based on Los Angeles County Rural Standard Plan, and pave the drive access up to the edge of existing pavement (two percent maximum slope). A minimum four-feet clearance shall be kept from proposed driveway to any utility pole.

1.1.4. Repair and replace any improvements damaged during construction.

1.1.5. Underground all new utility lines less than 50kV.

1.1.6. Submit preconstruction and post-construction street pavement condition evaluation reports, along the construction traffic route, to Public Works for review and approval. The timing of any necessary repair or reconstruction on all streets shall be determined by Public Works.

1.1.7. Submit the project's fair-share calculation of the street pavement reconstruction, along the construction traffic route, to Public Works for review and approval and contribute the project's fair share. The timing of the project's fair share payment shall be determined by Public Works.

1.1.8. Provide access rights to neighboring lots to have access to the public road from West Avenue C-8 and the southerly side of the lot.

1.2. Prior to issuance of a Certificate of Occupancy, construct all required street improvements and dedications.

For questions regarding the street conditions, please contact Pemaneh Abaghi of Public Works, Land Development Division, at (626) 979-5417 or pabaghi@pw.lacounty.gov.

2. Drainage

2.1. Prior to issuance of a Certificate of Occupancy, comply with the approved hydrology study and LID Plan.

For questions regarding the drainage condition, please contact Christian Ascencio of Public Works, Land Development Division, at (626) 458-4921 or cascencio@pw.lacounty.gov.

3. Water

3.1. Prior to issuance of a Certificate of Occupancy, comply with all the requirements stipulated by the Will Serve letter issued by the water purveyor.

For questions regarding the water condition, please contact Ms. Abaghi of Public Works, Land Development Division, at (626) 979-5417 or pabaghi@pw.lacounty.gov.

4. Geology

4.1. Prior to issuance of a grading or building permit, comply with the approved geotechnical report.

For questions regarding the geology condition, please contact Karin Burger of Public Works, Geotechnical and Materials Engineering Division, at (626) 458-7989 or kburger@pw.lacounty.gov.

5. Environmental

5.1. Any damaged or unusable panels shall be collected and loaded into standard enclosed trucks and transported to a recycling or disposal facility as required by local or State regulations at the time of removal.

For questions regarding the environmental condition, please contact Lance Cervantes of Public Works, Environmental Programs Division, at (626) 458-3590 or lcervantes@pw.lacounty.gov.

If you have any questions or require additional information, please contact Ed Gerlits of Public Works, Land Development Division, at (626) 458-4953 or egerlits@pw.lacounty.gov.

DK:la
P:\ldpub\SUBPCHECK\Plan Checking Files\CUP\RPPL2023005137 - 3278025001\2024-10-16 Submittal\DPW_Cleared_2024-11-19_RPPL2023005137.docx

COUNTY OF LOS ANGELES FIRE DEPARTMENT
FIRE PREVENTION DIVISION

Land Development Unit
5823 Rickenbacker Road
Commerce, CA 90040
Telephone (323) 890-4293, Fax (323) 890-9783

EPIC-LA NUMBER:	RPPL2023005137	PROJECT NUMBER:	Utility Scale Solar Facility @ 3278025001
CITY/COMMUNITY:	West Antelope Valley	STATUS:	Cleared
PROJECT ADDRESS:		DATE:	12/19/2023

CONDITIONS

1. A perimeter interior roadway is required around the entire solar array field.
2. The proposed solar array fields will require a minimum of one entry/ exit location.
3. In addition to the interior perimeter Fire Department access road, the design of the solar array field necessitates the need for additional interior on-site Fire Department access roads going in the directions north to south and east to west.
4. The fire apparatus on-site & off-site access roads shall be installed and maintained in a drivable condition for the duration of the solar project.
5. The fire apparatus on-site & off-site access roads shall be installed prior to occupancy or operation of the facility.
6. The minimum roadway width within the solar array field is 20 feet, clear-to-the sky, when there is no proposed or existing building on-site.
7. Provide a minimum centerline turning radius of 32 feet, with an inner radius of 22 feet and an outer radius of 42 feet, for each turn in the solar array field.
8. The fire apparatus on-site & off-site access roads for the solar array field shall have a soil compaction of 90%, OR the apparatus access road shall be excavated and re-compacted to 90% with no proposed buildings.
9. Gates Requirements: (1) The onsite ingress/ egress gate shall be located on the address side of the property; (2) The onsite ingress/ egress gate width shall be a minimum of 2 feet, clear-to-sky, with all gate hardware clear of the roadway width when a buildings is proposed; (2) The onsite ingress/ egress gate width shall be a minimum of 20 feet, clear-to-sky, with all gate hardware clear of the roadway width when a building(s) is not proposed; (3) The location of the gate shall be located a minimum of 50 feet from the public right-of-way; (4) The facility emergency contact information shall be provided with each limited access device, per County of Los Angeles Fire Department Regulation 5, and shall be clearly indicated with an appropriate placard at each ingress location. The minimum size of the placard shall be 12 inches X 12 inches; (5) All locking devices shall comply with the County of Los Angeles Fire Department Regulation 5, Compliance for Installation of Emergency Access Devices; (6) No interior gates permitted on the on-site access roads.
10. A minimum of one water tank is required for the proposed solar array field. The water tank is to be located near the address side entry/ exit gates and is to be indicated on the site plan.
11. This development requires the installation of one water tank with a minimum tank size of 10,000 gallons for Fire Department use only.
12. The water tanks shall be clearly identified for "Fire Department Use Only".
13. The water tanks shall be in compliance with Fire Department standards.
14. The water tank shall have a low-level water local alarm which shall be in compliance with all applicable codes and regulations. The low-level water local alarm can be battery operated.
15. The water tank shall have a Fire Department supply outlet of 2 ½ inches in diameter with National Standard threads. The supply outlet is to be located 14-24 inches above the finished grade and is required to be protected by approved barricades.
16. If the outlet is not provided directly off the tank, provide a 6-inch underground pipe to a 4-inch upright pipe with an outlet of 2 ½ inches with National Standard threads, which is required to be protected by barricades.
17. The proposed Battery Energy Storage System shall be incompliance with Chapter 12 and all other applicable

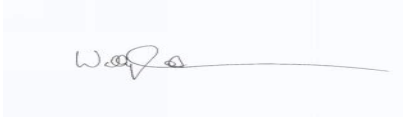
Reviewed by:

sections within the County of Los Angeles Fire Code.

18. All electrical disconnect locations shall be clearly identified and be in compliance with all applicable state and local codes.
19. The clearance of vegetation shall be in compliance with the brush clearance regulation as defined by the Fire Code or as directed by the Fire Official.
20. The vegetation shall be trimmed to a maximum height of 6 inches within the boundaries of the solar array and the Electrical transformer vaults or structures shall have all vegetation cleared to mineral soil for 50 feet.

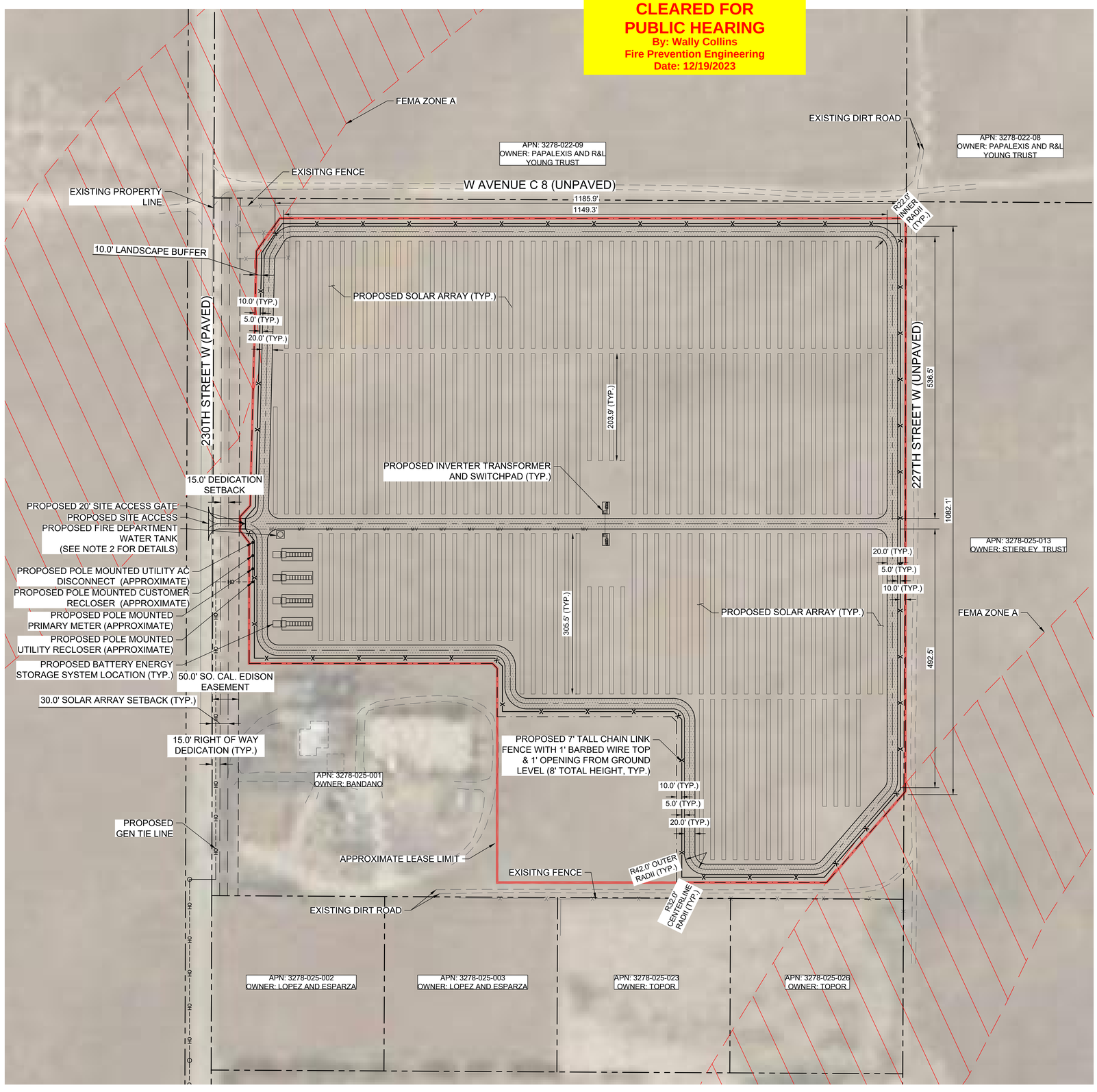
For any questions regarding the report, please contact Wally Collins at (323) 890-4243 or Wally.Collins@fire.lacounty.gov.

Reviewed by:



RPPL2023005137

COUNTY OF LOS ANGELES
FIRE DEPARTMENT
FIRE PREVENTION DIVISION
LAND DEVELOPMENT UNIT
CLEARED FOR PUBLIC HEARING
By: Wally Collins
Fire Prevention Engineering
Date: 12/19/2023



LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 7' TALL CHAIN LINK FENCE WITH 1' BARBED WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT

SITE INFORMATION

PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 065043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

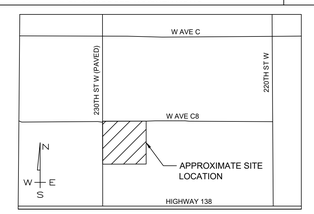
SURVEY NOTE

DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY. DATED MAY 31, 2022. ISSUING OFFICE: 7676 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108. ISSUING AGENT: FRANK GREEN. TITLE ORDER NUMBER: 2200330800. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS: A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. TRACKER HEIGHT MAXIMUM IS 10 FEET.
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	40+	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y
TRACKER QTY.			
DC SYSTEM SIZE		6,415.20 kW	
# OF 81 MODULE TRACKER ROWS		90	
# OF 54 MODULE TRACKER ROWS		85	



VICINITY MAP
NTS

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

REVISIONS

No.	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT 099997002
DATE 11/2/2023
SCALE AS SHOWN
DESIGNED BY BC
DRAWN BY BC
CHECKED BY CY

CONCEPTUAL SITE PLAN

230TH STREET SOLAR

PREPARED FOR
RPCA SOLAR 12, LLC

LOS ANGELES COUNTY CALIFORNIA

SHEET NUMBER
C1.0

Plotted By: Crump, Brenna Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN November 02, 2023 07:47:05am K:\LDT_ENERGY\RPCA_Ground-mount\099997002_RCPA_230th St_Exhibit_E\06_CAD_PlanSheets\CX.X - SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Parks Make Life Better!"
Norma E. García-González, Director Alina Bokde, Chief Deputy Director

December 19, 2023

TO: Soyeon Choi
Department of Regional Planning

FROM: Jui Ing Chien JIC
Planning and CEQA Section

SUBJECT: **UTILITY SCALE SOLAR FACILITY (RPPL2023005137)**
CONDITIONAL USE PERMIT
49560 230TH STREET W, LANCASTER, CA 93536

The proposed project has been reviewed for potential impacts on the facilities of the Department of Parks and Recreation (DPR). The project will not impact any DPR facilities, and we have no comments. Thank you for including this Department in the review of this document. If you have any questions, please contact me at jchien@parks.lacounty.gov or (626) 588-5317.

COUNTY OF LOS ANGELES
Public Health

BARBARA FERRER, Ph.D., M.P.H., M.Ed.
Director

MUNTU DAVIS, M.D., M.P.H.
County Health Officer

MEGAN McCLAIRE, M.S.P.H.
Chief Deputy Director

LIZA FRIAS, REHS
Director of Environmental Health

BRENDA LOPEZ, REHS
Assistant Director of Environmental Health

SCOTT ABBOTT, REHS, M.P.A.
Assistant Director of Environmental Health

5050 Commerce Drive
Baldwin Park, California 91706
TEL (626) 430-5374 • FAX (626) 813-3000

www.publichealth.lacounty.gov/eh/

BOARD OF SUPERVISORS

Hilda L. Solis
First District

Holly J. Mitchell
Second District

Lindsey P. Horvath
Third District

Janice Hahn
Fourth District

Kathryn Barger
Fifth District

May 15, 2024

TO: Samuel Dea
Supervising Regional Planner
Department of Regional Planning

Attention: Soyeon Choi

FROM: Charlene Contreras
Director, Community Protection Branch
Department of Public Health

SUBJECT: CONDITIONAL USE PERMIT (CUP) REQUEST
CASE: RPPL2023005137
APN: 3278-025-001

Thank you for the opportunity to review the application and project located at the subject property. This applicant requests to install 5 megawatts (MW) ground-mounted commercial solar and a 5 MW accessory battery energy storage system (BESS) facility located on approximately 29 acres of a 40-care parcel at the above location.

☒ Public Health conditions for this project have been met as of the date of this letter. Public Health recommends the clearance of the aforementioned project.

☐ Public Health requires that the conditions or information requested below are addressed prior to agency approval; therefore, the Department **DOES NOT** recommend clearance of this project until the following conditions are met:

1. Drinking Water Program: Potable Water

The project would be unmanned, and no employees would report to the project site daily. Project construction and operation would not utilize water facilities. The project would purchase water from a local purveyor. Water used for solar panel and inverter washing will be trucked in from an offsite source. A 10,000-gallon water tank would be installed for fire department use only.

For questions regarding drinking water, please contact Beverly Tway, Drinking Water Program at (626) 430-5420 or btway@ph.lacounty.gov.

2. Land Use Program: Wastewater

According to the Los Angeles County Sanitary Sewer Network-Consolidated Sewer Maintenance District, there are no sewer lines within 200 feet of the project.

The California Code of Regulations, Tittle 8, Section 8397.4 Health and Sanitation, subsection (d)(2)(A) and Table F-2, only when the employer demonstrate that it is not feasible to provide sewered toilets, or when there is a temporary increase in the number of employees for a short duration of time. “The employer shall abide by the requirement of the provision of portable toilets and proper handwashing facilities. Under this section, portable water, soap or waterless skin cleaning agents, and single-use hand towels must be supplied.”

Applicant must utilize a permitted Toilet Rental Agency Service in Los Angeles County during construction and/or maintenance activities.

For questions regarding wastewater, please contact Xiomara Santana, Land Use Program at (626) 430-5380 or xsantana@ph.lacounty.gov.

3. Community Protection Branch: Environmental Hygiene

Please Note: The following are general requirements for Noise and Air Quality recommendations for the proposed project.

The applicant shall abide by all applicable requirements contained in Title 12, Chapter 12.08 - Noise Control Ordinance of the County of Los Angeles (reference available at municode.com). The sections in Title 12 that apply to this project include but are not limited to 12.08.390 (Exterior Noise Standards), 12.08.440 (Construction Noise) and 12.08.530 (Residential air conditioning or refrigeration equipment).

3.1 Exterior Noise Ordinance:
12.08.390 Exterior Noise Standards

No person shall operate or cause to be operated, any source of sound at any location within the unincorporated county or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards in Table 1.

Exterior Noise Standards, dBA						
Area	Duration	Std # 1 = L50	Std # 2 = L25	Std # 3 = L8.3	Std # 4 = L1.7	Std # 5 = L0
		30min/hr	15min/hr	5 min/hr	1 min/hr	At no time
Residential	7 am – 10 pm	50	55	60	65	70
	10 pm – 7 am	45	50	55	60	65
Commercial	7 am – 10 pm	60	65	70	75	80
	10 pm – 7 am	55	60	65	70	75
Industrial	Anytime	70	75	80	85	90

Table 1. Std = Standard dB that may not exceed the cumulative period.

3.2 Construction Noise

Ordinance:

12.08.440 Construction Noise

Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited (See Table 2 and 3).

A. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 7:00 p.m.	75 dBA	80 dBA	85 dBA

Table 2. Std = Standard dB that may not exceed.

B. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 7:00 p.m.	60 dBA	65 dBA	70 dBA

Table 3. Std = Standard dB that may not exceed.

3.3 Community Noise

Ordinance:

12.08.530 Residential air conditioning or refrigeration equipment

Operating or permitting the operation of any air conditioning or refrigeration equipment in such a manner as to exceed any of the following sound levels is prohibited (See Table 4).

Measuring Location	Units Installed on or after January 1, 1980, dBA
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall.	55
Center of neighboring patio, 5 feet above level, no closer than 3 feet from any wall.	50
Outside the neighboring living area window nearest the equipment location, not more than 3 feet from the window opening, but at least 3 feet from any other surface.	50

Table 4. dBA levels not to be exceeded on the neighboring property.

Findings:

The subject site is zoned for residential use and is bordered by West Avenue C 8 to the north, 227th Street W to the east, undeveloped open space, and a residence to the south, and 230th Street W to the west. The immediate southern vacant land was zoned for irrigated farm. The rest of the surrounding lands were zoned for residential and commercial to the south and irrigated farm to the east and west.

Per the applicant, the project site

a) is owned by the onsite resident.
b) is relatively flat; therefore, no substantial grading, import, or export of fill would be required.
c) would consist of constructing solar modules, battery storage, underground electrical conductors, access roads, and fencing.
d) would install approximately 14,000 solar modules manufactured off-site and delivered by truck.
e) modules would be mounted on a steel racking system and anchored with steel piers 8 to 10 feet below ground.
f) battery storage would be comprised in four banks at the southwest corner of the solar panel array. Each bank would be the size of shipping container.
g) access would be provided via a new driveway constructed from 230th Street W. Access roads would encircle the whole array and bisect the site in a west-east orientation.
h) would be enclosed with a six-foot chain link fence topped with one-foot barbed wire.
i) construction to be completed in seven months with activities that include demolition; site preparation (vegetation clearing); grading; paving; system installation, testing and commissioning; and cleanup.

j) operation would be unmanned and operate year-round. No employees would report to the project site daily.
k) operations and maintenance activities, during project operations, include but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, battery storage system and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

On December 28, 2023, noise levels were measured using a sound level meter (Larson Davis Sound Advisor 831C) set to A-weighting (dBA) on 230 Street W shoulder approximately 50 feet north of 49560 230th St W, the project site owner single-family residence, to determine background noise levels. Measuring background noise assists in determining allowable construction or operational noise levels. If background noise exceeds some or all standards, then the background levels become the new standard.

As shown in Table 5 below, the exterior background noise level results exceeded the residential L1.7 and L0 as well as the commercial L0 noise standard. These exceedances were caused by cars/trucks driving on 230th St W. As a result, the L1.7 and L0 background noise level become the exterior noise standards (see highlighted noise level).

Based on the above findings and the noise TECHNICAL MEMORANDUM submitted by the applicant consultant, Kimley-Horn, the subject site construction and operation activities would not have significant noise impact.

Exterior Noise Standards, dBA											
Area Background	Duration	Std # 1 = L50		Std # 2 = L25		Std # 3 = L8.3		Std # 4 = L1.7		Std # 5 = L0	
		30min/hr	Result	15min/hr	Result	5 min/hr	Result	1 min/hr	Result	At no time	Result
Residential	1:47 p.m. – 2:47 p.m.	50	38.5	55	41.7	60	46.3	65	65.9	70	83.1
Commercial	1:47 p.m. – 2:47 p.m.	60	38.5	65	41.7	70	46.3	75	65.9	80	83.1

Table 5. Std = Standard dBA that may not exceed the cumulative period.

3.4 Recommendations

3.4.1 Exterior Noise

Operational noise from the subject site needs to be determined and mitigation measures applied as needed prior to permitting the construction.

Be advised that if the activities listed below or additional activities that may create a noise disturbance occur in the future, care must be exercised to refrain from or minimize

such a noise disturbance so as not to impact the nearest residential properties.

1. Vehicle and equipment start-up and idling.
2. Loading/unloading.
3. Alarms.
4. public address (PA) system.
5. solar panels and equipment washing and maintenance.

3.4.2 Construction Noise

Construction noise needs to be determined and addressed. Noise mitigation measures may need to be applied to reduce construction noise and to comply with Title 12, 12.08.440 – Construction Noise. Noise mitigation strategies may include but are not limited to:

1. All construction equipment shall be equipped with the manufacturers' recommended noise muffling devices, such as mufflers and engine covers. These devices shall be kept in good working condition throughout the construction process.
2. Installation of a temporary sound barrier at the property lines of the proposed project site to mitigate noise impacts on all surrounding properties.
3. All construction equipment shall be properly maintained and tuned to minimize noise emissions.
4. Stationary noise sources (e.g., generators and compressors) shall be located as far from residential receptor locations as is feasible.

3.4.3 Air Quality Recommendation

During grading or excavation activities if applicable, application of dust control measures to minimize fugitive dust is recommended. Fugitive dust

can result in worker and public exposure to fungal spores such as Coccidioides immitis, which can cause Coccidioidomycosis (Valley Fever). Adhere to applicable Air Quality Management District regulations.

For questions regarding above comments, please contact Yonas Taye of Public Health, Environmental Hygiene Program at (626) 430-5201 or ytaye@ph.lacounty.gov.

If you have any other questions or require additional information, please contact Veronica Aranda of Public Health, Planning & Land Use Liaison at (626) 430-5201 or varanda@ph.lacounty.gov.

CC:va
DPH_CLEARED_APN-3278-025-001_RPPL2023005137_05.15.2024.

Ryan Nyberg

From: Larry Dunworth <dunworthdl@yahoo.com>
Sent: Monday, March 31, 2025 6:38 PM
To: Ryan Nyberg
Cc: Stephanie Loucas; Anne Maytubby; Barbara Rogers; Dave Hyatt
Subject: RE: Fairmont Town Council Intro | Renewable Properties

Hi Ryan,

Sorry for the late reply. LA County suspended public meetings as part of their COVID response and by the time the suspension was lifted the Fairmont Town Council was essentially disbanded. Two of the council members no longer live in California and the remaining council member has health issues which preclude active participation. The Fairmont Town Council has not had a meeting since February 2020.

My suggestion if you need to do mandated community outreach is to host a meeting at a local restaurant and send invites to the residents via US Mail. The solar companies have used this outreach method successfully over the last several years.

Good Luck with your project.

Larry Dunworth
Former Fairmont Town Council member
(228) 209 -1254

Good afternoon, Fairmount Town Council Representatives,

I am following up on an email sent last week. We have project currently seeking entitlements from LA County Planning Department that is within the Fairmount Town Council district. I'd like to request being added to the Council's April agenda to present the project to the Council and community. We look forward to the opportunity and I look forward to hearing back form you all soon. Please do not hesitate to reach out if you have any questions.

Thanks,
Ryan

Ryan Nyberg
Permitting Manager
(M) +1 (415) 741-1684
ryan@renewprop.com | renewprop.com

From: Ryan Nyberg <ryan@renewprop.com>
Sent: Thursday, March 27, 2025 10:57 AM
To: horsemomus@yahoo.com; Wanda.hull@gmail.com; 'ldunworth@elsysinc.com' <ldunworth@elsysinc.com>
Cc: Stephanie Loucas <stephanie@renewprop.com>; Anne Maytubby <anne@renewprop.com>; Ryan Nyberg <ryan@renewprop.com>
Subject: Fairmont Town Council Intro | Renewable Properties

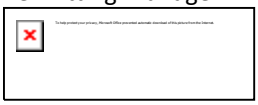
Good Morning,

I hope this email finds you well and apologies if this is a duplicative email. There was an issue with an email address in the first send. I wanted to introduce myself, my company, and the 230th Street Solar Project. The 230th Street Solar Project is a proposed community solar and battery energy storage facility in LA County on West 230th Street just north of W Avenue D. As I understand, the Project is within the Fairmount Town Council region, and you all are representatives of the council. I'd like to kindly request the opportunity to join the Fairmont Town Council's April meeting to present the project and seek feedback from the community.

Renewable Properties specializes in developing and investing in small-scale utility solar projects throughout the United States. We are headquartered in San Francisco and committed to decreasing the nation's dependence on fossil fuels through solar energy development. As part of that process, we proactively reach out to the communities we work in, as we are committed to being good community members and neighbors.

The Project is still in the planning process with the County and is expected to have a public hearing in front of the Planning Commission this summer. We look forward to the opportunity to join the April meeting and sharing more about our Project. I look forward to hearing back about the opportunity soon.

Thanks,
Ryan

Ryan Nyberg
Permitting Manager

(M) +1 (415) 741-1684
ryan@renewprop.com | renewprop.com

From: Nathan Bello
To: Soyeon Choi
Subject: 230th Street Solar
Date: Friday, May 9, 2025 5:39:20 PM

CAUTION: External Email. Proceed Responsibly.

Dear Soyeon Choi,

Thank you for the opportunity to review the Initial Study/Mitigated Negative Declaration (IS/MND) for the 230th Street Solar Project. My name is Nathan Bello, and I manage and support the Petersen Ranch Mitigation Bank, which was established to provide compensatory mitigation for projects in Los Angeles County impacting a range of biological resources, including natural communities and native vegetation.

The Petersen Ranch Mitigation Bank offers a variety of credits approved by the California Department of Fish and Wildlife (CDFW) to meet CEQA mitigation requirements. While these credits are categorized by vegetation community, they also represent habitat that supports a suite of native plant and wildlife species. For example, the grassland and chaparral credit areas at Petersen Ranch are known to support habitat for species analyzed in the IS/MND, including Swainson's hawk, Crotch's bumble bee, burrowing owl, and American badger.

I respectfully suggest that the mitigation measure for Crotch's bumble bee (MM Bio-9) be revised to allow for the use of credits from approved mitigation banks. Incorporating this flexibility is consistent with CEQA's requirements for feasible, enforceable, and effective mitigation (CEQA Guidelines §§ 15126.4(a)(1)(B), 15041(a)) and with CEQA's mandate for consistency with other environmental laws and policies (§ 15021). The use of mitigation banks also aligns with state and federal policies that establish a preference for mitigation that is permanent, professionally managed, and ecologically effective. Approved mitigation banks ensure that conservation outcomes are both certain to occur and enforceable, meeting CEQA's standards for mitigation certainty and long-term success.

An example of a mitigation measure structure that provides this flexibility is included below:

"Any floral resources associated with Crotch's bumble bee (i.e., specific plant species known to be used for foraging) that will be removed or damaged by the Project shall be replaced ***on-site, off-site, or mitigated through the purchase of credits from the Petersen Ranch Mitigation Bank or another CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee,*** *at a 1:1 ratio or as otherwise determined through any applicable Incidental Take Permit (ITP) process. Floral resources* ***mitigated through on-site or off-site replacement*** *shall be replaced as close to their original location as feasible after Project construction. These resources shall be maintained for the life of the Project and replanted or managed as needed to ensure habitat preservation."*

If it would be helpful, I would be happy to meet with you and your team to provide additional information about the Petersen Ranch Mitigation Bank and its relevance to this project.

Thank you for your consideration.

Sincerely,

Nathan Bello
HabitatSource
bello@habitatsource.com
916.508.4993

From:	Elizabeth Topor
To:	Soyeon Choi
Subject:	Additional notes Re: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513
Date:	Friday, May 30, 2025 5:26:33 PM

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

I wanted to take a moment to clarify a few concerns in my previous e-mail.

Re: Noise - The noise I am referring to is basic day-to-day noise which is uncommon to us out here, and not noise levels established as within some set limits as acceptable. As I walked around outside this morning doing chores, I realized I needed to clarify this. "Normal" country noise out here is any noise produced by the sounds of a variety of birds, the neighbor's cows mooing and their goats bleating at food time, my horses chewing, snorting/blowing and squealing, a dog playing or barking for a short time to say, "coyote" or "stranger", and the occasional bleats that our own goat and ewes make when they see us. People actually have videos or music they play to get this effect, but out here, we get to experience it every day, any time we step outside. We love to lay on a lounge chair outside with a good book or to take a quick nap while listening to the sounds of nature (birds and horses). This is a therapeutic atmosphere. It puts a smile on your face. You feel calm and that "all is well" with the world. This is the epitome of country living.

Noise out here carries. If someone at the corner store is yelling or arguing, we can hear them. If the Badanos have their grandchildren over and they are outside, we can hear them. Wound does travel, especially with the wind. That being said, the noise from this project which is not normal pleasant noise, will affect us. It will be heard throughout the day.

Re: Views: While one might be able to see above the solar panels to look at the mountains, that is not the only view I am talking about, but the ground level view leading to and including the mountains. The solar project is in the direct pathway to that view for me; meaning you do not just look up into the sky but you look across the open fields of green plants/vegetation, amazing wildflowers with wide open, gently sloping upward land, stretched across many miles to the mountains (which sadly this year the flowers were scarce and did not last long, possibly effected by the Apollo fire which burned so much of our vegetation and has not had a chance to regrow and an overall dry winter). The whole area and sights of open land gently sloping to the mountains is one you cannot exclude. Living on the eastside was flat, dry, and dirt, dirt, dirt. Nothing green to see, not much wildlife, except an occasional rattlesnake. It was, truth be told, ugly! A great idea would be to have solar on the eastside, as there are not a lot of homes, flat land, and fully open to sunshine.

Re: My asthma - My asthma tends to start and exacerbate mid-November thru the end of

April/early May making my use of an inhaler necessary throughout the day and night. I have in the not-too-distant past had a small, right lower lobe pneumonia. I am 63 yrs. old and very concerned regarding an increased risk of Valley Fever with this project, even with their attempt of preventative measures. Last year my doctor said they were seeing an increasing number of Valley Fever cases. I am also concerned for the children in my home. Our distance from the project makes us easy targets. We access the pastures to check fences, catch and bring a horse in, walk and ride in the pastures, walk back and forth to neighbors to care for their place while they are gone, and live in close proximity to this project.

Flight path: I am concerned regarding flight patterns for military and other entities' planes as they commonly fly quite low and right over my pastures, barn, home, and other structures. This includes helicopters, jets, etc. Could the glare from this project cause the pilots to err. This would be disastrous for the pilots, us, and the animals.

Please add these clarified comments to my previous e-mail.

Thank you again,

Elizabeth Topor

From: Soyeon Choi <schoi@planning.lacounty.gov>
Sent: Thursday, May 29, 2025 1:24 PM
To: Elizabeth Topor <beyebranch@msn.com>
Subject: RE: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

Dear Ms. Topor,

I appreciate your careful review of the project and comments. I will forward your comments to the applicant immediately. Your comments will also be added to the project folder and hearing package for review and consideration by the Regional Planning Commission.

Thank you,

SOYEON CHOI (she/her/hers)
SENIOR PLANNER, North County Development Services
Office: (213) 974-6443 • Direct: (213) 893-7021
Email: schoi@planning.lacounty.gov

CONFIDENTIALITY NOTICE: This email message, including any attachments, from the Department of Regional Planning is intended for the official and confidential use of the

recipients to whom it is addressed. It contains information that may be confidential, privileged, work product, or otherwise exempted from disclosure under applicable law. If you have received this message in error, be advised that any review, disclosure, use, dissemination, distribution, or reproduction of this message or its contents is strictly prohibited. Please notify us immediately by reply email that you have received this message in error, and destroy this message, including any attachments.

From: Elizabeth Topor <beyebranch@msn.com>
Sent: Thursday, May 29, 2025 8:49 AM
To: Soyeon Choi <schoi@planning.lacounty.gov>
Subject: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

My name is Elizabeth Topor. I am e-mailing to voice my concerns of above said project.

I own parcel #s 3278 025 023; 3278 025 026 (both of which the fence lines adjoin the proposed project); and parcel 3278 025 035 (my home on 10 acres adjoining the other 2 parcels). I have lived here since Dec. 2019 (25 yrs).

My concerns are the following, among others:

Foster Mom: Being a foster mom with Trinity Youth Services I am concerned with employees of solar project for the safety of children including my 4 adopted ones . My home is a favorite for soothing children, calming those with hyperactivity and behavior issues. They thrive out here in this peaceful environment. Many behavioral health/therapists have seen the wonders this life/environment has on the children. The children love seeing nature and being around so many different animals. Life here is definitely a slower paced one. The social workers love coming out here. They are always amazed at the beauty, the fresh air and the peacefulness. My direct social worker (Denisse Ireland) loves to come sit outside with the children on a picnic table. They deal with many tough issues and busy cities, so coming here is like a getaway for a short time.

Fires: After the Apollo Fire here which destroyed 2 homes including 40+ animals, and encircled my property and both neighbors, it is my concern for smoking employees and extreme fire hazard in this area. This fire burned up to my front fence and around 2 sides, coming in my back pasture where several pasture horses reside, taking out fences and gates, all of which had to be replaced.

Horses: Multiple horses have access to the fence line between me and proposed project. My concern is for workers petting, feeding, "messing" with the horses, getting injured by one of the horses. A major concern is choke, a condition where if fed an apple or core, carrots, and/or watermelon rinds among other items they run the risk of choke, a serious condition where the food is stuck making the horse unable to swallow or drink. Often times a veterinarian (which chances of getting a vet out are very rare due to our location) cannot relieve such a choke due to the food source; therefore, having to euthanize the horse.

Dirt/sand blowing: Living in the Antelope Valley wind is not unusual, but out here it is unlikely to have any dust blowing, as is common on the very dry east side of the valley) a reason why I moved west 25 + years ago). This project is going to create lots of dust very near to my home and horses. I am an asthma sufferer so this is of concern to me as it can exacerbate my asthma.

Traffic: The dirt road (227th) on the east side of my pasture, if used for solar project traffic/workers will also create a lot of dust, noise and safety concern going back and forth on this little road we out here use to ride horses on, walk, and bike ride with children. Walking, riding, biking out here is very peaceful, soothing, and good for mind and body. It won't be if there is the danger and constant traffic back and forth on this dirt road.

Noise: It is very peaceful here with little noise (except the wind LOL). The neighbors are quiet. The air is fresh and clear. This project will be quite noisy with workers and all that goes along with it. Our peaceful life in the country will feel like we moved to the city. We are zoned heavy agriculture to grow things on like alfalfa hay, raise livestock on, not for metal solar panels.. This is another reason why people come to live out here, a way to get away from busy cities and noise.

Family and animal life: People move out here to get away from the hustle and bustle of a city, to have room to roam and not feel "boxed in", to raise families in a peaceful, healthy environment, and to have animals, including livestock. It is a wonderful environment for them to romp and play, to flourish. If we wanted city life, we would life in a city.

Lights and noise: Another great reason to live in the country is for the clear skies, the starry nights, the peace and quiet for sleeping, and no lights!. Lights and any night activity will disrupt this. Sleeping outside in the summer is a big treat for kids and parents alike. It is like going camping, but in your own backyard.

Reflection of panels: The reflection from the solar panels will at different times of the day put off a very unbearable glare, which shine into a person's eyes, the trainer/rider of a horse, and the horse itself, making this an issue for safety, not to mention if you know how that glare affects your eyes. Being a foster mom, I have had social workers ask, "what is all that water

way out there"? We reply, "solar panels".

Views: This is an area where homes are somewhat spread out with BEAUTIFUL views of the mountains to the south, west, and especially the north. This project will directly impact this. The view in the winter of the northern mountains with snow on them is breathtaking! It is a scene for picture taking. It is something you long to see and never get tired of.

Wildlife: Living here in Neenach we get to see a lot of wildlife (which we love to feed). Here at my very own house the California Quail abounds, with babies born every year, Blue Jays, Orioles, Red Robins, hawks, vultures, owls and we have also had the pleasure of a returning Roadrunner and Crane, an occasional duck and homing pigeon, along with the usual country critters of squirrels and rabbits (which we also feed), King snakes, Gopher snakes, Diamondback rattlers, and multiple Mojave Green rattlesnakes (which concerns me that they will be disrupted and head to my pastures). More recently we had two Cow Egrets come and visit the west neighbor's cows LOL. What a sight to see these birds fly over your head.

Please carefully consider my concerns and comments. Ruben Badano inherited the bare land from his father who passed away. There are many other things he could use it for, like agriculture, growing hay, which they have done in years past, raising livestock (they even have cattle pens, which his father raised some cattle in), subdividing and/or selling it off., or hey, just keep it the way it is because he has lived out here on that land for many years. I love my neighbors, we are brothers and sisters in Christ, but I strongly oppose this project because it will forever change the quality and reason for life out here in the country. Please keep solar far away from us country folks who moved here to be away from such things. Keep this a haven of peaceful beauty and nature for kids to thrive in. There are so many areas of open land where no people live or even want to live, where putting solar would not negatively impact their lives.

Thank you,

Sincerely,

Elizabeth Topor

Soyeon Choi

From: sunny522yoo@gmail.com
Sent: Thursday, July 17, 2025 6:33 PM
To: Soyeon Choi
Subject: Public hearings

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: External Email. Proceed Responsibly.

My name is Sun J Yoo(629 Traction Ave apt # 607 LA, CA 90013).
I've been informed of the public hearing regarding the project #PRJ2023-002405.
I'm sorry that my language barrier prevents from participating in the hearing. I'm all for this project description. But I'd like to know what the compensation is for the landlord. I'd appreciate it if you could give me some preliminary knowledge in advance.
I think you are also Korean,so I would appreciate it if you email me in Korean.
I wish you success in your business.

Thanks.
Sun J Yoo.

Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning

Project Title: 230th Street Solar Project/Project No. PRJ2023-002405 (CUP No. RPPL2023005137, Environmental Plan No. RPPL2023005138)

Lead agency name and address: Los Angeles County, 320 West Temple Street, Los Angeles, CA 90012

Contact Person and phone number: Soyeon Choi, Senior Planner, North County Development Services, (213) 974-6443

Project sponsor's name: RPCA Solar 12, LLC

Project location: Generally located at 49560 230th St W, Lancaster, CA 93536. See **Figure 1: Regional Vicinity Map** and **Figure 2: Local Vicinity Map.**
APN: 3278-025-001 *USGS Quad*: Neenach School

Gross Acreage: 31 acres

General Plan designation: N/A

Community-/Area-wide Plan designation: Antelope Valley Area Plan, Rural Land 10 (RL10)

Zoning: A-2-2 (Heavy Agricultural Zone)

Project Description: RPCA Solar 12, LLC (Applicant) proposes to construct and operate the 230th Street Solar Facility (Project) that consists of a single-axis tracker ground-mounted photovoltaic (PV) community solar panels and battery energy storage system (BESS) facility that would generate up to a total of up to 4.99 megawatts (MW) of alternating current (AC) in capacity. The U.S. Department of Energy defines "community solar" as any solar project or purchasing program, within a geographic area, in which the benefits flow to multiple customers such as individual businesses, nonprofits, and other groups. Community solar customers typically subscribe to—or in some cases own—a portion of the energy generated by a solar array, and receive an electric bill credit for electricity generated by their share of the community solar system.[1]

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W near the community of Lancaster. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, Balance of System Equipment, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

[1] U.S. Department of Energy, Community Solar Basics, https://www.energy.gov/eere/solar/community-solar-basics. Accessed July 25, 2024.

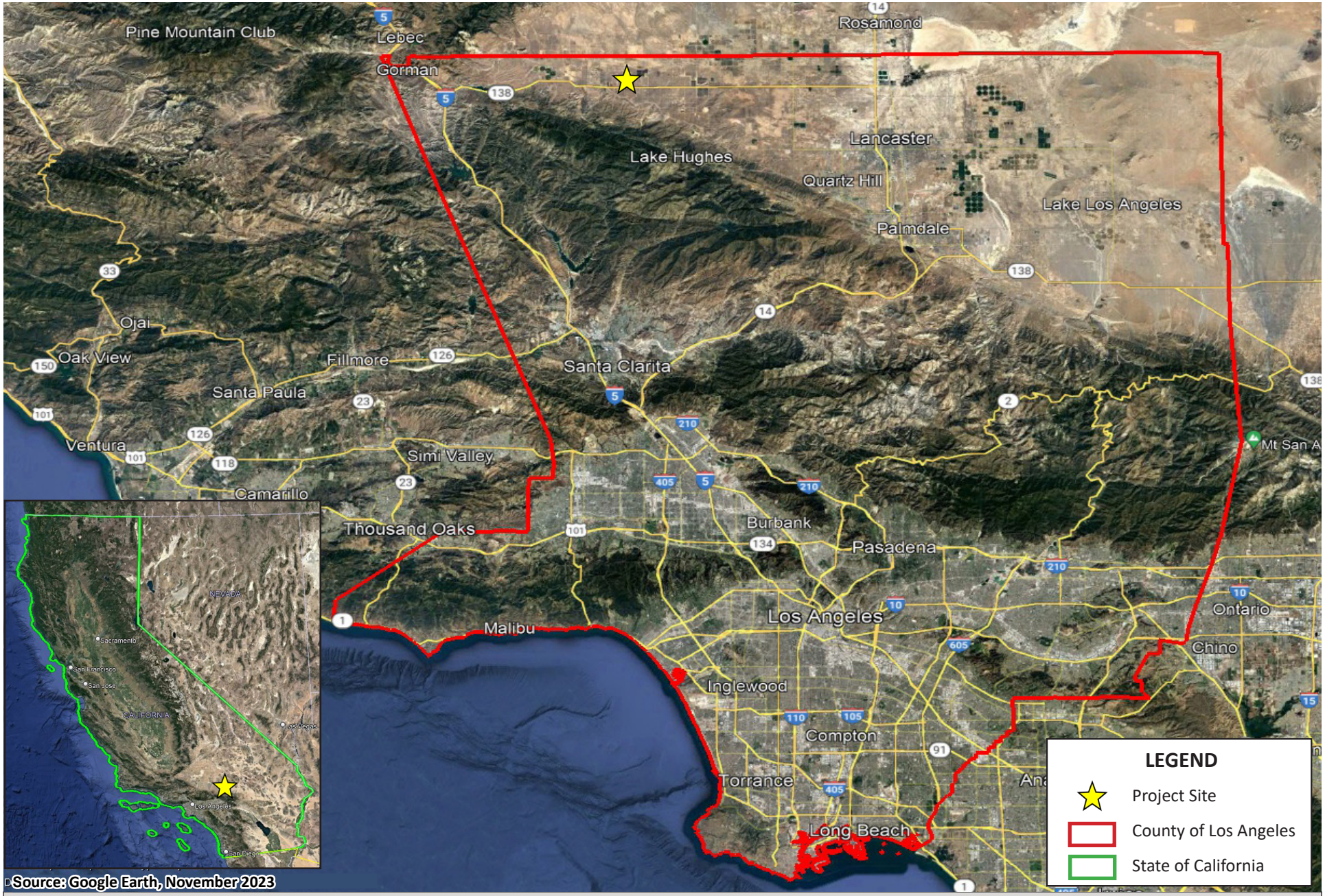


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

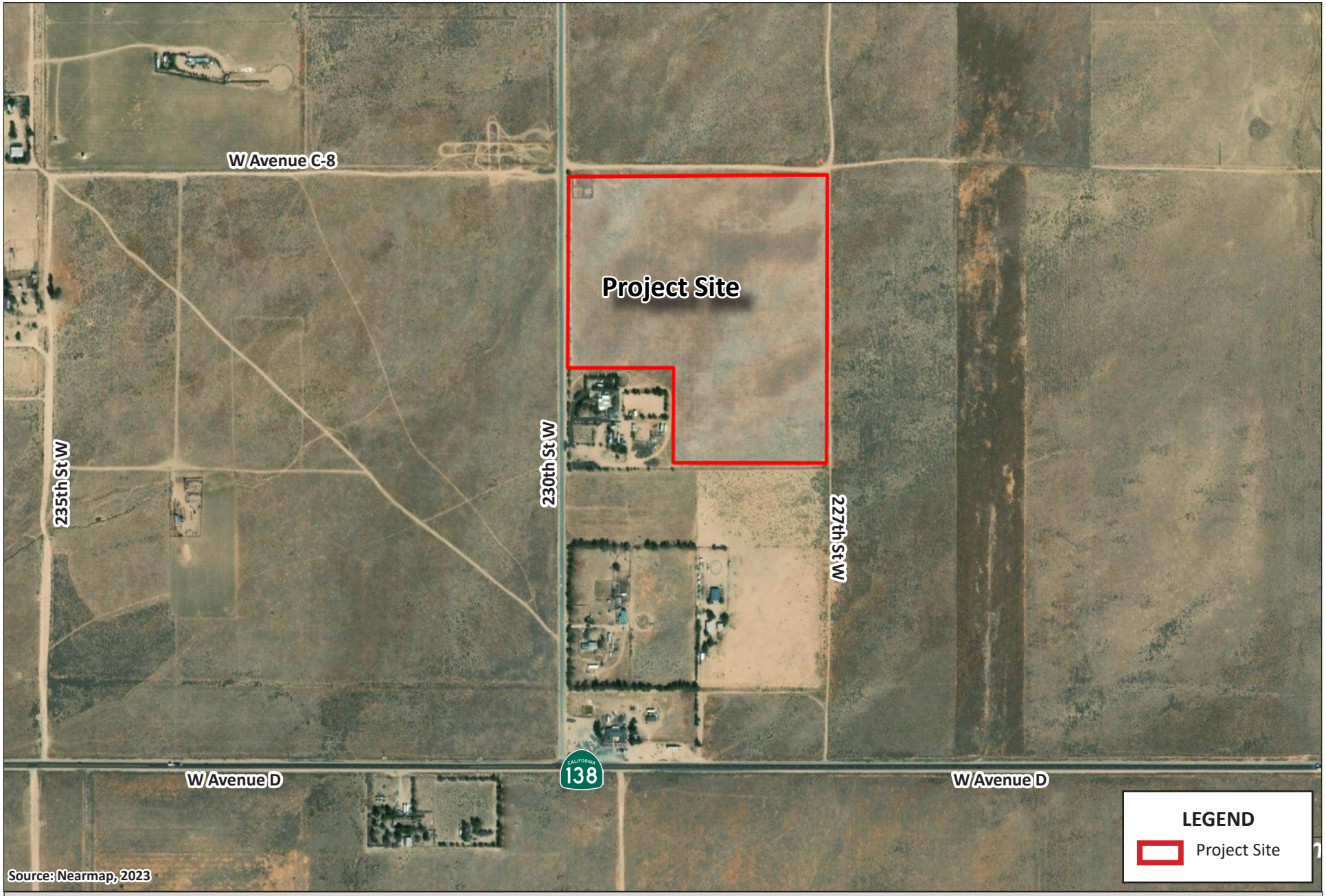


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

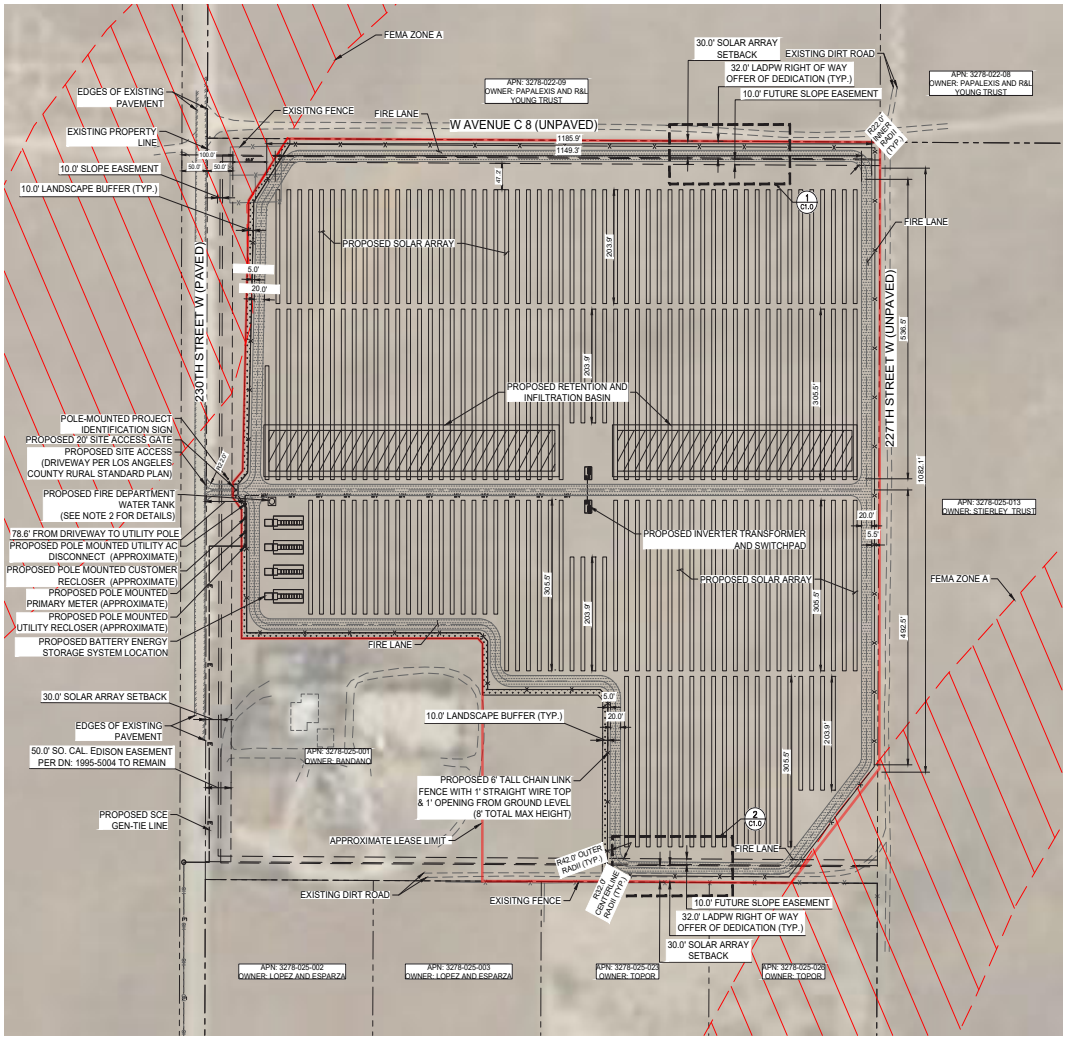
As depicted in **Figure 3: Conceptual Site Plan,** the Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be stored vertically at the end of the day. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance. The Project is designed to comply with the development standards of the Los Angeles County's Renewable Energy Ordinance.

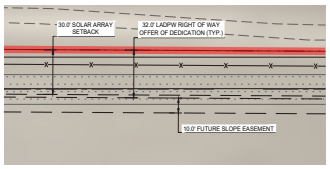
Pursuant to Section 22.140.510.E.3.c.v of the County's Renewable Energy Ordinance, setbacks from the property line shall be a minimum of 30 feet in Agricultural Zones. The Project would include a 30-foot setback from the from the solar array along W Avenue C 8 to the north, 230th Street W to the west, and the southern boundary of the Project Site. As such, the proposed fencing would comply with Section 22.140.510.E.3.c.ii of the County's Renewable Energy Ordinance.

The BESS would store electrical energy produced by the Project during the day and flexibly dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of approximately four battery banks located in the southwest corner of the PV array. Each battery bank would be approximately the size of a standard shipping container. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS will be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

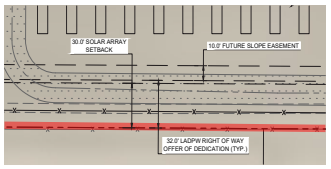
The Balance of System Equipment, including, but not limited to, inverters, AC combiner boxes, transformers, and/or medium voltage switchgear may be installed near the solar array within the Project's fence line. The Balance of System Equipment would be installed on H-Frames and concrete pads and in compliance with equipment manufacturer instructions. Low voltage conductors connecting the solar modules to the Balance of System Equipment would be run underground in conduit. The medium voltage conductors would mostly run underground in a similar fashion to low voltage wiring.

Site access would be provided via a new driveway constructed from 230th Street W and new on-site access roads. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The proposed access roads would encircle the whole solar array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. A minimum of 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.





NORTH ENLARGED PROPERTY BOUNDARY (1)
SCALE: 1"=30'



SOUTH ENLARGED PROPERTY BOUNDARY (2)
SCALE: 1"=30'

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	30	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y
TRACKER QTY.			
DC SYSTEM SIZE		6,633.90 kW	
# OF 81 MODULE TRACKER ROWS		95	
# OF 54 MODULE TRACKER ROWS		85	

LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF PAVEMENT PER PLAN
- PROPOSED PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 6' TALL CHAIN LINK FENCE WITH 1' STRAIGHT WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED SCE GEN-TIE LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD/ FIRE LANE
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT
- MATCHLINE
- PROPOSED RETENTION AND INFILTRATION BASIN

SITE INFORMATION

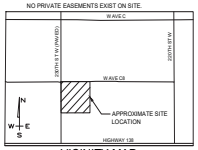
PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 06043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

SURVEY NOTE

DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED MAY 31, 2022. ISSUING OFFICE: 7978 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108. ISSUING AGENT: FRANK GREEN. TITLE ORDER NUMBER: 2200030890. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS: A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.
BENCHMARK:	ELEVATIONS SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BENCHMARK CONTROL POINT #5000 SET 60D NAIL CONTROL POINT. ELEVATION = 2823.09' NAVD 88

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. PROPOSED TRACKER HEIGHT IS 10 FEET, BUT WILL NOT EXCEED LA COUNTY'S HEIGHT MAXIMUM (25 FEET).
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.
9. DRAINAGE IMPROVEMENTS ARE NOT TO BE MAINTAINED BY THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT.
10. IN ADDITION TO THE REQUIREMENTS OF CHAPTER 22.80 (RURAL OUTDOOR LIGHTING DISTRICT), ANY OUTDOOR LIGHTING REQUIRED FOR SAFETY AND SECURITY PURPOSES SHALL BE SHIELDED AND DIRECTED DOWNWARD TO AVOID LIGHT TRESPASS AND SHALL INCLUDE:
    - 10.1. MOTION SENSORS FOR ENTRY-LIGHTING TO THE ON-SITE EQUIPMENT, STRUCTURES, AND BUILDINGS; AND
    - 10.2. LIGHT-SENSOR OR MOTION-SENSOR LIGHTING FOR THE MAIN FACILITY ACCESS GATE, OPERATIONS AND MAINTENANCE BUILDING DOORWAYS, AND ANY PARKING AREAS OF FACILITIES WITH OPERATION AND MAINTENANCE BUILDINGS.
11. NO PRIVATE EASEMENTS EXIST ON SITE.



VICINITY MAP
NTS



Source: Kimley-Horn and Associates, Inc., April 9, 2025

Figure 3: CONCEPTUAL SITE PLAN

230th Street Solar Project
Initial Study/Mitigated Negative Declaration

Kimley»Horn

Pursuant to Section 22.140.510.E.3.c.viii of the County's Renewable Energy Ordinance, a landscaped area at least 10 feet in depth shall be maintained between perimeter fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. The Project proposes a 10-foot landscape buffer between the fence and the access road along the western and southern boundaries of the Project Site. See **Figure 4: Conceptual Landscape Plan** for more details. As such, the proposed landscape buffer would be designed in compliance with the pertinent development standards regarding landscape buffers in the County's Renewable Energy Ordinance. The landscape buffer includes various shrubs like the big sagebrush (*Artemisia Tridentata*), brittlebush (*Encelia Farinosa*), California buckwheat (*Eriogonum Fasciculatum*), California matchweed (*Gutierezzia Californica*), Tecate cypress (*Hesperocyparis forbesii*), and California cudweed (*Pseudognaphalium Californicum*).

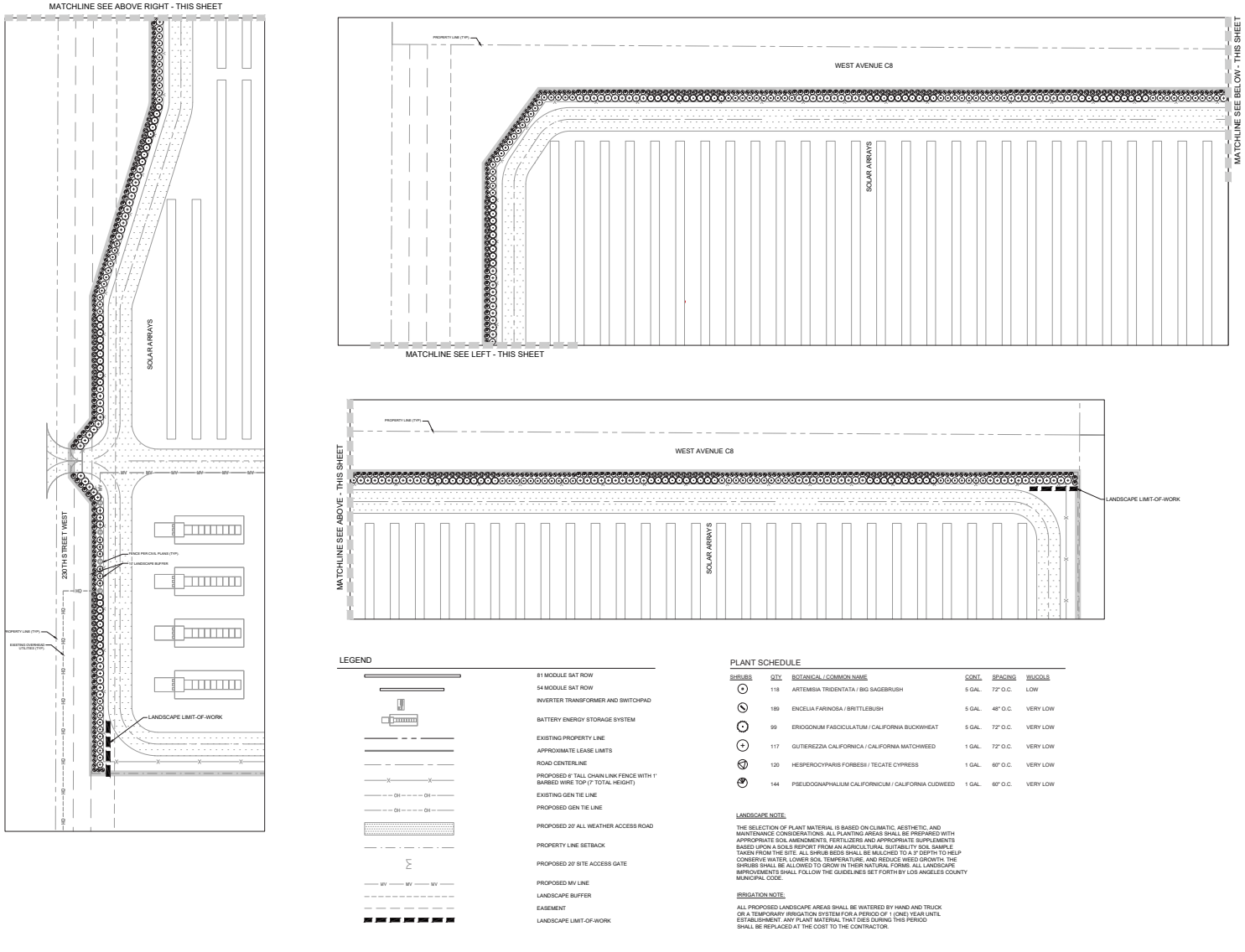
Pursuant to Section 22.140.510.E.3.c.ii of the County's Renewable Energy Ordinance, fencing shall be required around the perimeter of ground-mounted utility-scale solar energy facilities with a maximum height of eight feet. The Project would be enclosed in a six-foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). As such, the proposed fencing would comply with Section 22.140.510.E.3.c.ii of the County's Renewable Energy Ordinance. The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24-hour access for emergency responders.

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate on the southern side of the Project Site for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department (LACFD) standards. The water tank would have a LACFD supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades. To mitigate a potential increase in runoff flows, in compliance with the Los Angeles County Department of Public Works (LACDPW) Low Impact Development (LID) Standards Manual, the Project would construct an infiltration retention basin across the central width of the Project Site with an approximate volume of 42,336 cubic feet.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as June 2026.[2] Project construction activities generally fall into six main categories: (1) demolition, (2) site preparation (vegetation clearing), (3) grading, (4) paving, (5) system installation, and (6) testing, commissioning, and cleanup. The on-site construction workforce is expected to peak at approximately 50 individuals during the construction period, but approximately 15 to 20 workers may be expected during non-peak activities. Construction personnel will be divided between civil and electrical services.

[2] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.



Source: Kimley-Horn and Associates, Inc., October 26, 2023

Figure 4: CONCEPTUAL LANDSCAPE PLAN

230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

The eight-foot perimeter fence would be installed at the onset of construction to establish the outer boundaries of the Project Site. Site preparation would consist of clearing the existing vegetation in those areas on the Project Site where construction would be undertaken, grading, and establishing temporary staging area (including stockpile and laydown areas) as necessary. Selected vegetation would be removed to accommodate the construction of the array and its appurtenances, as well as to prevent shading on the array during operation. Any vegetation taller than six inches or expected to exceed six inches in height would be removed. Grass and groundcover may remain between rows and under the solar modules. All cleared vegetation would be chipped or spread on-site or disposed of responsibly.

A temporary staging area would be used as laydown area for construction equipment and materials. The staging area would also include a location for sanitary facilities and a construction trailer. The area containing the equipment and materials would be closed within a temporary construction fence with a lockable gate. Construction equipment such as tractors, backhoes, loaders, dozers, and graders may be needed to clear vegetation from the Project Site, and to grade roads and areas where structures will stand. All soils would be balanced on-site, and no import or export is expected.

Erosion and sediment control best management practices (BMPs) would be installed on the Project Site to prevent stormwater runoff. These BMPs would remain in place until construction is complete and until the Project Site is reseeded and stabilized in accordance with applicable code requirements. The construction contractor would be required to incorporate BMPs consistent with the County's ordinance and with guidelines provided in the California Stormwater Quality Association's Construction Best Management Practice Handbook, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and a Soil Erosion and Sedimentation Control Plan to reduce potential impacts related to construction of the Project.

Erection of the solar arrays would include support structures and associated electrical equipment and cabling. During this work, there would be multiple crews working on the Project Site with various equipment and vehicles, including special vehicles for transporting the modules and other equipment. As the solar arrays are installed, the electrical collection and communication systems would be installed.

During Project construction, approximately 13 acre-feet (AF) of non-potable water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. No new permanent water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction and removed upon operation.

Operations

The Project would have a useful life of approximately 35 years and would operate year-round. The Project would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel and inverter washing. It is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

All scheduled maintenance of the Project would occur from 8 a.m. to 5 p.m. Unscheduled maintenance visits would generally occur only if an emergency situation develops at the Project Site or its immediate surroundings that could endanger the functional capacity of the Project and/or endanger the general public health, safety, and welfare of the Project Site and its surroundings. In the event of a major disruption to the Project Site, a corrective maintenance visit would be scheduled as soon as possible with all reasonable effort to schedule any such maintenance activities between 8 a.m. and 5 p.m.

During Project O&M, it is anticipated that minimal water would be required for solar panel and inverter washing. Water consumption for washing panels and inverters is expected to be approximately 0.2 AF of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge, or inundation of water, and no chemicals or other materials are used. Per the LACFD request, a 10,000 gallon water storage tank will be kept on-site during the Project's operation.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste with a preference for recycling.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off-site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

Surrounding land uses and setting: The Project Site is in the Antelope Valley West Zoned District in northwest Los Angeles County and is approximately two miles east of the community of Neenach. The Project would occupy approximately 31 acres of a 39-acre parcel. The Project Site is comprised of fallow/ruderal land that was previously used for agricultural purposes and is devoid of structures except for a corral fence on the northwest corner. A rural residence/single-family home is located outside of the Project Site on the southwest corner fronting 230th Street W. Several large-scale solar projects are located further north, east, and south of the Project Site.

As shown in **Figure 2: Local Vicinity Map**, the Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west. 230th Street W is a public right-of-way, whereas W Avenue C 8 and 227th Street W are private streets. The nearest residence is located southwest of the Project Site. Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25-mile to the south. Local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W.

Land Use Designations and Zoning

The Project Site has a Land Use Designation of Rural Land 10 (RL10), as designated in the Antelope Valley Area Plan (AVAP). Intended uses on RL10 include single-family residences, equestrian and animal uses, and agricultural and related activities. The Project Site is also designated as Rural Preserve Area in the AVAP and Agricultural Resource Area in the County General Plan.

The Project Site is zoned Heavy Agricultural, Two Acres Minimum Required Lot Area (A-2-2). Surrounding parcels are also zoned A-2-2 and consist primarily of agricultural, rural residential, and undeveloped open

space uses. Pursuant to Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities is a permitted use with an approved CUP in the A-2 zone.[3]

Table 1: Project Site and Surrounding Uses within a 500-Foot Radius summarizes the on-site and surrounding land uses within 500 feet of the Project Site.

Table 1: Project Site and Surrounding Uses within 500-Foot Radius

Description	Existing Land Use	AVAP Land Use	Zoning
Project Site	Fallow land	Rural Land 10 (RL10)	Heavy Agriculture Zone (A-2-2)
North	Vacant land	Rural Land 10 (RL 10)	
South	Undeveloped open space, residential	Rural Land 10 (RL10)	Heavy Agriculture Zone (A-2-2)
East	Vacant land	Rural Land (RL10)	Heavy Agriculture Zone (A-2-2)
West	Vacant land	Rural Land (RL10)	Heavy Agriculture Zone (A-2-2)
SOURCE: Los Angeles County Department of Regional Planning, GIS-NET Public.			

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code § 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On January 22, 2024, the County mailed notification pursuant to Assembly Bill (AB) 52 to the following tribes: Fernandeno Tataviam Band of Mission Indians, Gabrieleno Tongva Indians of California, and the San Manuel Band of Mission Indians. See Section 18, *Tribal Cultural Resources,* for further details.

Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

Public Agency	*Approval Required*
Los Angeles County Department of Regional Planning	Building or other related ministerial permits
Antelope Valley Air Quality Management District	Dust Control Management Plan

Major projects in the area: None

[3] Los Angeles County, Los Angeles County Code of Ordinances, Table 22.16.030-B Principal Use Regulations for Agricultural, Open Space, Resort and Recreation, and Watershed Zones, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO_DIV3ZO_CH22.16AGOPSPRERE WAZO_22.16.030LAUSREZOW. Accessed January 22, 2024.

Reviewing Agencies:

Responsible Agencies

- ☒ None
- ☐ Regional Water Quality Control Board:
  - ☐ Los Angeles Region
  - ☐ Lahontan Region
- ☐ Coastal Commission
- ☐ Army Corps of Engineers
- ☐ LAFCO

Special Reviewing Agencies

- ☒ None
- ☐ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☐ National Forest
- ☐ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mountains Area
- ☐ Rowland Water District

Regional Significance

- ☒ None
- ☐ SCAG Criteria
- ☐ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area
- ☐

Trustee Agencies

- ☒ None
- ☐ State Dept. of Fish and Wildlife
- ☐ State Dept. of Parks and Recreation
- ☐ State Lands Commission
- ☐ University of California (Natural Land and Water Reserves System)

County Reviewing Agencies

- ☒ DPW:
- ☒ Fire Department
  - -Forestry, Environmental Division
  - -Planning Division
  - - Land Development Unit
  - - Health Hazmat
- ☒ Sanitation District
- ☒ Public Health/Environmental Health Division: Land Use Program (OWTS), Drinking Water Program (Private Wells), Toxics Epidemiology Program (Noise)
- ☒ Sheriff Department
- ☐ Parks and Recreation
- ☐ Subdivision Committee

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture/Forestry	☐ Hazards/Hazardous Materials	☐ Recreation
☒ Air Quality	☐ Hydrology/Water Quality	☐ Transportation
☒ Biological Resources	☐ Land Use/Planning	☒ Tribal Cultural Resources
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities/Services
☐ Energy	☐ Noise	☐ Wildfire
☐ Geology/Soils	☐ Population/Housing	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Department.)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature (Prepared by) Date

_____ _____

Signature (Approved by) Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Department cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) The explanation of each topic should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significance. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

1. AESTHETICS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape to the public benefit. The AVAP defines scenic resources as scenic drives, water features, significant ridgelines, buttes, and Hillside Management Areas and establishes Goal COS 5, which aims for "the Antelope Valley's scenic resources, including scenic drives, water features, significant ridgelines, buttes, and Hillside Management Areas, [to be] enjoyed by future generations."[4]

The Project is in an agricultural area of the County with limited tall or dense development in the vicinity. No additional tall or dense development is located within 0.5-mile of the Project Site. Surrounding development includes vacant land, roadways and several large-scale solar projects to the north, east, and south. The Project Site and surrounding land uses are not within a Scenic Resource Area or Significant Ecological Area (SEA) delineated by the AVAP. No designated scenic views, scenic vistas, or scenic resources as delineated by the AVAP are known to occur in the vicinity of the Project.

The Project Site and surrounding public roads have views of mountain foothills and ridgelines to the north, west, and south. During construction, any trash, debris, and waste would be removed from the Project Site. The eight-foot perimeter fence would be installed at the onset of construction to establish the Project Site boundaries. The solar equipment proposed to be constructed on the Project Site is low in profile, including PV modules mounted on fixed-tilt foundations or tracker units and associated electrical equipment that would display a height of up to 15 feet at maximum tilt. Implementation of the Project would also include collection lines, access roads, and an eight-foot chain-link perimeter fence. The proposed 10-foot landscape buffer on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8 would screen the Project from motorists.

Visual character is measured by form, line, color, and texture, which in turn could directly impact visual quality. Although the Project would convert undeveloped areas of the parcel to solar use, the visual character of the existing landscape has already been fundamentally altered by surrounding solar projects. In particular, the dominant form of the Project area is geometric and angular in the foreground due to the surrounding existing solar projects, with mountain foothills and ridgelines in the background. Dominant colors are influenced by existing dark-colored solar panels of the surrounding renewable energy facilities. The dominant texture is smooth in the foreground due to the existing surrounding solar panels and irregular in the background due to the mountains. As such, construction and operation of the Project would be consistent with the visual character of the Project area which is already dominated by renewable energy facilities. Because the visual character would not change due to Project development, the existing visual quality of the Project area would also be preserved.

Further, the introduction of Project components would not substantially obstruct or interrupt views of the surrounding mountain foothills and ridgelines which, due their height, would remain visually prominent. Therefore, less than significant impacts on scenic vistas are expected to occur.

[4] Los Angeles County Department of Regional Planning, Antelope Valley Area Plan.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
b) Be visible from or obstruct views from a regional riding, hiking, or multi-use trail?	☐	☐	☒	☐

The Project Site is in an agricultural area with limited tall or dense development in the vicinity. No additional tall or dense development is located within 0.5-mile of the Project Site. According to the AVAP, there are no equestrian, hiking, or biking trails near the Project Site. The closest trail is the Pacific Crest Trail located approximately 5.7 miles west of the Project Site at the trail's closest point. Given the limited height of the Project, surrounding foothills, existing solar facilities in the Project vicinity, and distance between the Project Site and the trail, the Project Site would not be visible from the Pacific Crest Trail. In turn, the Project would comply with AVAP Goal COS 5 (as detailed above in Checklist Question 1.a) and Goal M 10, which aims for "a unified and well-maintained multi-use…trial system that links destinations…throughout the Antelope Valley." Project impacts on this trail or other regional multi-use trails would be less than significant.

c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

The Project Site is generally flat and contains no significant geologic features or vegetation unique to the area that could be considered a scenic resource. The AVAP designates a portion of Lancaster Road (approximately 1.2 miles south of the Project Site) as a Priority Scenic Drive. This scenic drive is not considered a State Scenic Highway. Nonetheless, Project components would not exceed a height of 15 feet and would therefore be unlikely to be seen from Lancaster Road. The closest eligible State Scenic Highway is a portion of State Route 14 (SR 14) located approximately 28 miles northeast of the Project Site.[5] The Project would have no impact on scenic resources.

[5] California Department of Transportation, California State Scenic Highway System Map, 2019, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed January 20, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
d) Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality? (Public views are those that are experienced from publicly accessible vantage point)	☐	☐	☒	☐

The Project is in a non-urbanized area and is surrounded by the public right of way, private streets, and undeveloped open space to the north, west, and east, and rural residential uses to the south. Several large-scale solar projects are also located further north, east, and south of the Project Site. As described in Checklist Question 1.a, public views in the vicinity of the Project Site largely comprise views of mountain foothills and ridgelines to the north, west, and south.

The Project would be fenced at the onset of construction activities to stake out the Project Site boundaries. The fence would partially screen construction activities from views at the street level from off-site locations. Therefore, construction activities and equipment would not result in adverse visual effects.

During Project operations, the Project would include low-profile solar equipment such that they would not obstruct or occlude views of the mountain foothills and ridgelines. While the Project would change the existing public views at the immediate foreground on the public right-of-way, the installation of low profile solar equipment (e.g., the arrays and the BESS) would not degrade the visual quality and character of the Project Site and its immediate vicinity as the public would still retain views of the mountain foothills and ridgelines to the north, west, and south. Therefore, the Project would not significantly alter the existing visual character or quality of public views of the Project Site and its surroundings. The Project would conform with the visual quality of the existing solar facilities located to the southwest of the Project Site. Upon approval of the CUP, the Project would be consistent with all AVAP policies and would comply with all zoning development standards and regulations, including standards governing scenic quality. The Project would also require the County and all applicable departments to review plans to determine compliance with development standards. Therefore, impacts on degrading existing visual character or quality of public views of the Project Site and surroundings would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

The Project Site is in an area with limited existing sources of shadow (e.g., utility poles), light (e.g., cars), and glare. Existing outdoor lighting near the Project Site exists from residential buildings, including a residence south of and adjacent to the Project Site. The Project would generate new sources of shadow, light, and glare compared to existing conditions.

Construction

While the majority of Project construction would occur during daylight hours, there is a potential that construction could require the use of artificial lighting (e.g., floodlights, spotlights), particularly during the winter season when daylight is no longer sufficient earlier in the day. To the extent artificial light sources are required, such use would be temporary and would cease upon completion of Project construction. Furthermore, the Project is located within the Rural Outdoor Lighting District and would be required to comply with the County's Rural Outdoor Lighting District Ordinance, which requires that only the minimum amount of lighting is used, lights are to be shielded and directed downward and away from the sky, and no light spillage occurs. Construction lighting would be focused on the particular area undergoing work.

Daytime glare could potentially occur during construction activities if reflective construction materials were positioned in highly visible locations where the reflection of sunlight could occur. However, any glare would be highly transitory and short-term, given the movement of construction equipment and materials within the construction area, and the temporary nature of construction activities. In addition, large, flat surfaces that generate substantial glare are typically not an element of construction activities. Furthermore, temporary construction fencing comprised of a solid material or including screening would be placed along the periphery of the Project Site to screen construction activity from view at the street level from off-site locations. Therefore, there would be a negligible potential for daytime or nighttime glare associated with construction activities to occur.

Based on the above, light and glare associated with Project construction activities would not substantially alter the character of off-site areas surrounding the Project Site or adversely impact day or nighttime views in the area. Therefore, impacts related to light and glare during construction would be less than significant, and no mitigation measures are required.

Operation

Operation of the Project would introduce new sources of light and glare that are typically associated with solar facilities (e.g., security or perimeter lighting). The Project does not use concentrated solar thermal technology, but rather includes photovoltaic panels that are designed to absorb, rather than reflect, sunlight. The Project is also located within the Rural Outdoor Lighting District and would therefore also be required to comply with the County's Rural Outdoor Lighting District Ordinance, which requires that only the minimum amount of lighting is used, lights are to be shielded and directed downward and away from the sky, and no light spillage occurs. Therefore, the proposed Project would not create a new source of substantial shadow and light, and impacts would be less than significant.

Kimley-Horn and Associates, Inc. (Kimley-Horn) prepared a Solar Glare and Glint Analysis Report for the Project (see **Appendix A**).[6] Based on the analysis provided therein, the potential glare receptors located in proximity to the Project are motorists from 230th Street W, motorists from SR 138, and single-family homes situated around the Project Site. As determined from the analysis, there would be low glare potential from four of the observation points, but no glare expected to impact motorists. Since the analysis does not factor interfering topography or buildings, if there is not a direct line of sight from the Project to the locations identified due to terrain or man-made objects, potential glare produced by the Project would be reduced.

The PV panels would not be expected to cause significant glare as the panels will absorb sunlight during daylight hours and therefore, produce minimal reflectivity. PV solar panels are designed to be highly absorptive of light that strikes the panel surfaces, generating electricity rather than reflecting light. Single-axis tracker systems are designed to track the sun to maximize panel exposure to the sun, which would direct the majority of any reflected light back toward the sun in a skyward direction. PV panels have a lower index of refraction/reflectivity than common sources of glare in residential environments. The glare and reflectance levels from a given PV system are lower than the glare and reflectance levels of steel, snow, standard glass, plexiglass, and smooth water. Single-axis tracker systems would employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise. Therefore, the solar PV panels would not create a new source of substantial glare that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

[6] Kimley-Horn and Associates, Inc., Solar Glare and Glint Analysis Report, October 2023. Appendix A of this IS/MND.

2. AGRICULTURE / FOREST

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐

The Project Site currently contains fallow land that was previously used for agricultural purposes. According to the Department of Conservation's Important Farmland Finder, the Project Site is designated as Grazing Land.[7] Surrounding properties are designated as Grazing Land, Farmland of Local Importance, or Other Land. Project activities would be contained within the Project Site's boundaries and would not affect surrounding agricultural properties.

Construction and/or operation of the Project would not result in the conversion of designated Farmland to a nonagricultural use as the Project Site is designated as Grazing Land. The Project Site contains fallow land, and the Project would not change the zoning for the Project Site, such that agricultural or grazing uses could continue upon decommissioning of the Project. Upon decommissioning the Project, the land could be reclaimed for agricultural production in compliance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Therefore, for the reasons described above, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Impacts would be less than significant.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?	☐	☐	☐	☒

The Project Site has a AVAP land use designation of RL10, with a maximum density of one dwelling unit per 10 gross acres of land and is zoned Heavy Agricultural, Two Acres Minimum Required Lot Area (A-2-2). Pursuant to Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities in this zone is a permitted use with an approved CUP. According to the Department of Conservation's Williamson Act Enrollment Finder, the Project Site is not enrolled in a Williamson Act contract.[8] The Project Site is within an Agricultural Resource Area designated by the Area Plan. However, the Project would not seek to change the zoning for the Project Site such that agricultural uses could not continue

[7] California Department of Conservation, California Important Farmland Finder, https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed December 20, 2023.

[8] California Department of Conservation, California Williamson Act Finder, https://maps.conservation.ca.gov/dlrp/WilliamsonAct/. Accessed January 30, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

upon decommissioning. Upon decommissioning the Project, the land could be reclaimed for agricultural production in accordance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Therefore, the Project would not permanently conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act Contract, and no impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))?	☐	☐	☐	☒

The Project Site is zoned for Heavy Agricultural and does not contain forested area or large trees. According to the California Department of Fish and Wildlife Habitat Conservation Planning Branch, the Project Site is not located in private timberlands or public lands with forests.[9] As such, the Project would not conflict with existing zoning for, nor would it cause rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

As mentioned above in Checklist Question 2.a, the Project Site is located on fallow land that was previously used for agriculture and does not include forest land. Thus, the Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

As previously mentioned in Checklist Question 2.a, the Project Site is vacant and undeveloped and supported agricultural uses in the past. At the end of the Project's operational term (approximately 35 years), the Project would be decommissioned. Upon decommissioning, the Project Site would be restored to agricultural land and reclaimed (if the landowner chooses) for agricultural production in compliance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Additionally, operation of the solar facility on the Project Site would not preclude the surrounding areas from being improved with agricultural uses. Therefore, the Project would not permanently convert farmland to non-agricultural use or convert forest land to non-forest use, and impacts would be less than significant.

[9] California Department of Fish and Wildlife Habitat Conservation Planning Brach, California Forests and Timberland Map, 2015, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109917&inline. Accessed January 24, 2024.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?	☐	☐	☒	☐

The following air quality analysis is primarily based on the Air Quality Analysis Technical Memorandum prepared by Kimley-Horn (see **Appendix B**).[10] The State of California is divided geographically into 15 air basins, generally along geographic or topographic boundaries. The Project Site is located in the Mojave Desert Air Basin (Basin). The Basin includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The Antelope Valley Air Quality Management District (AVAQMD) has jurisdiction over stationary sources of air pollution located within the northern desert portion of Los Angeles County, which includes the Project Site. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Areas for which there is insufficient data available are designated unclassified. The Project Site is a Federal nonattainment area for ozone (O_3), and a State nonattainment area for O_3 and PM10. The Project Site is classified as attainment or unclassified for lead, visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

The AVAQMD PM10 Attainment Plan and Ozone Attainment Plan established under the Western Mojave Desert Air Quality Management Plans (AQMPs) set forth a comprehensive set of programs that will lead the Basin into compliance with Federal and State air quality standards. The control measures and related emission reduction estimates within the AVAQMD PM10 Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans is determined by:

- Demonstrating Project consistency with local land use plans and/or population projections (**Criterion 1**);
- Demonstrating Project compliance with applicable AVAQMD Rules and Regulations (**Criterion 2**); and
- Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards (**Criterion 3**).

Criterion 1: Consistency with local land use plans and/or population projections.

Growth projections included in the AQMPs form the basis for the projections of air pollutant emissions and are based on general plan land use designations and the Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-

[10] Kimley-Horn and Associates, Inc., Air Quality Analysis Technical Memorandum, April 2025. Appendix B of this IS/MND.

2040 RTP/SCS) demographics forecasts. While SCAG has recently adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), the AVAQMD has not released an updated AQMP that utilizes information from the 2020-2045 RTP/SCS. As such, this consistency analysis is based off the 2016-2040 RTP/SCS. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the County. The AVAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the AQMPs.

The AVAP is the local land use plan, which is a component of the County General Plan, that guides future development through various goals and policies. The Project Site has a land use designation of RL10, as designated in the AVAP, and is zoned A-2-2 in the Antelope Valley Planning Area. Pursuant to the Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities is a permitted use with an approved CUP.

SCAG growth forecasts in the 2016-2040 RTP/SCS estimate unincorporated Los Angeles County's population to reach 1,273,700 persons by 2040, representing a total increase of 233,000 persons between 2012 and 2040. Additionally, SCAG growth forecasts in the 2016-2040 RTP/SCS estimate the County's employment to reach 288,400 jobs by 2040, representing a total increase of 65,500 jobs between 2012 and 2040.

The Project does not include a residential component and would not increase local population growth. The Project does not include a commercial component and would not substantially increase employment. Construction of the Project would not result in residential, commercial, or growth-inducing development that would result in a substantial increase in growth-related emissions. In addition, because of the presence of locally available construction workers, and because of the relatively short duration of construction (approximately seven months), workers are not expected to relocate to the area with their families.

The Project would operate year-round. Typical operational and maintenance activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. Therefore, limited staff would be required during operations. As such, there would be no employee or population growth as a result of the Project, and the Project would not cause the SCAG growth forecast to be exceeded. As the AVAQMD has incorporated these forecasts on population, housing, and employment into the AQMPs, the Project would be consistent with the AQMPs. Impacts would be less than significant.

Criterion 2: Compliance with applicable AVAQMD Rules and Regulations.

The Project would be required to comply with all applicable AVAQMD Rules and Regulations. This would include AVAQMD Rules 401, 402, and 403. AVAQMD Rule 403 requires periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust (PM10) emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions. The Project would comply with applicable AVAQMD rules, enforced through Project Conditions of Approval, and not conflict with applicable AVAQMD Rules and Regulations. Therefore, impacts would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Criterion 3: Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards.

Analysis of the Project's potential to result in more frequent or severe violations of the CAAQS and NAAQS can be satisfied by comparing Project emissions to AVAQMD thresholds. As discussed under Checklist Question 3.b below, unmitigated short-term construction emissions would not exceed AVAQMD significance thresholds. Additionally, unmitigated long-term operational emissions of all criteria pollutants studied (nitrous oxides [NO_X], reactive organic gases [ROG], carbon monoxide [CO], PM10, and PM2.5) would be less than the applicable AVAQMD significance thresholds. Therefore, the Project would not delay the Basin's attainment goals for O_3, PM10, and PM2.5, and would not result in an increase in the frequency or severity of existing air quality violations. As such, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, impacts would be less than significant.

Conclusion: As discussed above, the Project would comply with AVAQMD Rules and Regulations and would not induce residential or worker population growth. Further, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, the Project would not result in or cause National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) violations. As such, the Project would be consistent with the AVAQMD's AQMPs and impacts would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

Construction

Project construction involving the use of heavy-duty construction equipment is anticipated to be completed over a period of approximately seven months. The Project involves construction activities associated with demolition, site preparation, grading, paving, construction/installation, PV panel vendor trips, and paving.

The analysis of daily construction emissions has been prepared using CalEEMod. Refer to **Appendix B** for the CalEEMod outputs and results. **Table 2: Daily Construction-Related Emissions** and **Table 3: Annual Construction-Related Emissions** present the anticipated short-term construction emissions. As indicated in Table 2 and Table 3, criteria pollutant emissions during Project construction would not exceed the AVAQMD significance thresholds. Therefore, total Project construction-related air emissions would be less than significant.

Table 2: Daily Construction-Related Emissions

Construction Year	Maximum Pounds Per Day[1, 2]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025)	2.79	25.3	30.7	0.06	5.01	2.26
AVAQMD Thresholds	*137*	*137*	*548*	*137*	*82*	*65*
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less

Notes:
1. The highest values between summer and winter results were used as a worst-case scenario.
2. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.

Source: CalEEMod version 2022.1.1.21 Refer to **Appendix B** for model outputs.

Table 3: Annual Construction-Related Emissions

Construction Year	Maximum Tons per Year[1]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025)	0.12	0.98	1.26	<0.005	0.19	0.09
AVAQMD Thresholds	*25*	*25*	*100*	*25*	*15*	*12*
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less

Notes:
1. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.

Source: CalEEMod version 2022.1.1.21 Refer to **Appendix B** for model outputs.

Operations

Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. **Table 4: Daily Operational Emissions** and **Table 5: Annual Operational Emissions**, present the Project's anticipated mobile source (i.e., motor vehicle use), energy source, and area source emissions. Each of these source types are described below.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Table 4: Daily Operational Emissions

Source	Maximum Pounds Per Day[1]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	40.7	0.49	58.7	<0.005	0.10	0.08
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.01	0.40	0.06	<0.005	0.13	0.04
Total Emissions	*40.7*	*0.90*	*58.8*	*0.01*	*0.24*	0.12
AVAQMD Thresholds	***137***	***137***	***548***	***137***	***82***	***65***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding. 1. The highest values between summer and winter results were used as a worst-case scenario.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix B** for model outputs.						

Table 5: Annual Operational Emissions

Source	Maximum Tons per Year					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	6.53	0.04	5.28	<0.005	0.01	0.01
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	<0.005	0.06	0.02	<0.005	0.02	0.01
Total Emissions	*6.53*	*0.010*	*5.29*	*<0.005*	*0.03*	0.01
AVAQMD Thresholds	***25***	***25***	***100***	***25***	***15***	***12***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix B** for model outputs.						

Area Source Emissions. Area source emissions would be generated due to potential BESS architectural coatings. Other typical area sources (e.g., consumer products, landscaping equipment, etc.) would not be utilized by the Project.

Energy Source Emissions. Energy source emissions would be generated due to electricity usage associated with the Project. The Project's operational activities would not consume natural gas. The Project would consume negligible amounts of electricity for auxiliary equipment, such as BESS HVAC units, communications equipment, and lighting.

Mobile Source Emissions. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM10, and PM2.5 are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM10, and PM2.5); however, CO tends to be a localized pollutant, dispersing rapidly at the source. During operations, it is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips); refer to **Appendix B** for assumptions and calculations.

Total Operational Emissions. As shown in Table 4 and Table 5, estimated total Project operational emissions would not exceed established AVAQMD thresholds. Therefore, impacts associated with Project operational emissions would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors (volatile organic compounds [VOCs] and NO_X) affect air quality on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations resulting from individual projects. The NAAQS and CAAQS are set to be protective of human health, however, which means that the Project's less than significant increases in regional air pollution from criteria air pollutants would have less than significant impacts on human health.

The AVAQMD does not have clear thresholds or methodology to quantify health impacts of criteria pollutants from individual projects. Other air districts, including the South Coast Air Quality Management District (SCAQMD), have stated that it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants from individual projects for various reasons including modeling limitations as well as the fact that certain emissions are the result of chemical interactions and it is impossible to determine exactly where in the atmosphere precursor air pollutants will interact.

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD has written that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at the site with the highest ozone levels by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with less than a regional scope) due to photochemistry and regional model limitations.

Because the Project would not exceed AVAQMD's thresholds for construction and operational air emissions, the Project would have a less than significant impact for air quality health impacts as well. The Project also would be required to comply with all applicable AVAQMD Rules and Regulations, including

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Rules 401, 402, and 403, which require among other things periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust (PM10) emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection and recycling program would be utilized to promote recycling of Project components and minimize disposal in landfills. Emissions associated with decommissioning activities would be similar to those during construction of the Project. As shown in Table 2 and Table 3, emissions would not exceed AVAQMD thresholds and impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, parks, daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a residential use located approximately 110 feet south.

Construction

Project construction is anticipated to be completed over a period of approximately seven months. Project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit Diesel Particulate Matter (DPM). In 1998, the CARB identified diesel exhaust as a Toxic Air Contaminant (TAC). Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. Project construction would comply with the California Code of Regulations (CCR), Title 13, Section 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to nor more than five minutes. Implementation of these regulations would reduce the amount of DPM emissions from Project construction. The closest sensitive receptor is located 110 feet

(measured from the Project Site's fencing to the property line of the nearest sensitive receptor) south of the Project Site. While construction activities are anticipated to be completed over a period of approximately seven months, activities in the vicinity of this receptor would be even shorter, as construction moves throughout the Project Site. Due to the distance between the Project Site and the closest sensitive receptors, potential health impacts on sensitive receptors associated with exposure to DPM from Project construction would be less than significant.

Furthermore, construction activities are expected to occur well below the 30-year exposure period used in health risk assessments. Emissions would be short-term and intermittent in nature, and therefore would not generate TAC emissions at high enough exposure concentrations to represent a health hazard. Therefore, construction of the Project would not result in a significant increase in elevated cancer risk to nearby sensitive receptors and impacts would be less than significant.

Operations

Typical operational and maintenance activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. None of these activities would result in the generation of excessive TAC emissions, or associated health risks. Therefore, operation of the Project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors and potential impacts would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.). CO is primarily a product of incomplete combustion of gaseous or liquid fuels, meaning tailpipe emissions are worse in stop-and-go congested traffic as compared to free flowing conditions. The Project does not include any stationary sources of combustion, and results in a net increase of approximately 20 one-way operational trips per year. Construction would be temporary and is expected to last approximately seven months, such that construction would not result in a long-term source of CO emissions. The Project is not located near existing CO hotspots and the trips associated with the Project are insufficient to create a CO hotspot.

With such low existing ambient levels of CO, low levels of CO emissions from the Project, and lack of congested roadways around the Project, the Project would not cause CO hotspots in excess of applicable NAAQS or CAAQS standards at any intersections within the County. Impacts would be less than significant in this regard.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities.

According to the Department of Conservation Division of Mines and Geology, A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report (August 2000), serpentinite and ultramafic rocks do not occur within the vicinity of the Project Site. Thus, there would be no impact in this regard.

Valley Fever

Coccidioidomycosis (CM), often referred to as San Joaquin Valley Fever or Valley Fever, commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top 2-12 inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust are also more likely to contract Valley Fever.

The fugus is known to live in the soil in the southwestern United States and parts of Mexico and Central and South America. People and animals can get sick when they breathe in dust that contains the Valley fever fungus. This fungus infects the lungs and can cause respiratory symptoms including cough, fever, chest pain, and tiredness. In California, the number of reported Valley fever cases has greatly increased in recent years. The number of Valley Fever cases in the United States has been steadily increasing over the past few years. There were over 20,000 reported cases in 2019, and the Center for Disease Control and Prevention (CDC) estimates that an additional 150,000 cases go undiagnosed each year. About 32 percent of all cases occur in California.

When a susceptible human who is not immune inhales these airborne spores, they enter the lungs and may cause respiratory infections, such as pneumonia. Roughly 60 percent of individuals infected with CI have no symptoms. For the remaining 40 percent, a wide spectrum of clinical symptoms can occur. The most common presentation of CM is a mild, influenza-like illness while the more severe includes pneumonia-like symptoms requiring rest and medication (fungus-killing medicines). The symptoms of the disease typically begin about two weeks after inhaling the spores. These symptoms typically include flu-like symptoms such as fever, aching, chills, sweats, fatigue, cough, and headache. In uncomplicated CM, symptoms usually subside in a few weeks or months.

In approximately one percent of infected persons, disseminated disease develops, in which CM is spread from the lungs to other areas of the body such as the skin, bones, brain, or other organs. This spreading of CM infection beyond the lungs can be fatal. Meningitis, the most lethal complication of disseminated CM, may cause a stiff neck, severe and persistent headache, nausea, vomiting, and various other central nervous system symptoms such as disorientation, loss of balance or equilibrium, inability to think clearly and loss of

consciousness. People with diabetes and women who contract CM while they are pregnant are particularly prone to dissemination of the disease.

Currently, no vaccine is available to prevent this infection. Further, there is no effective way to detect and monitor CI growth patterns in the soil. Thus, controlling the growth of the fungus in the environment to reduce the risk to individuals is currently not a viable option. A skin test can be conducted to identify individuals who have been infected in the past and would have developed immunity to the fungus, although recurrence as a result of immuno-suppression is possible. Even if the fungus is present in soil, earthmoving activities may not result in increased incidence of valley fever. Propagation of Coccidioides is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells.

To reduce exposure to CI, development projects implement measures to prevent wind dispersion of arthrospores, such as applying dust control palliatives, water, or vegetation to fungus-bearing soils. To facilitate early identification of infection and subsequent treatment. The Los Angeles County Code of Ordinances Section 22.140.510 requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403 and AVAQMD CEQA Guideline Fugitive Dust Control Measures. The California Department of Public Health recommends stopping outside activity during conditions where the dust cannot be controlled well. Appropriate use of respiratory protect may be also needed in some circumstances.

During ground disturbing activities associated Project construction, the potential exists that such activities could disturb dust particles and, if present, CI spores, which could then be released into the air and potentially be inhaled by on-site workers and nearby sensitive receptors; exposure to these spores can cause Valley Fever. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track out onto public roads, and the minimization of non-essential grading during high wind conditions. Due to the distance of the nearest sensitive receptor, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. Although CEQA does not require the analysis of a Project's impacts on its construction workers, such analysis is included for informational purposes. The best approaches to reducing construction workers' risk of contracting Valley Fever are awareness and dust reduction because dust can be an indicator that increased efforts are needed to control other airborne particulates (including CI spores, if any). Compliance with AVAQMD rules reduce dust. For example, Rule 401 prohibits a person from discharging into the atmosphere any air emission contaminant for a period or periods aggregating more than three minutes in any single hour emissions that is: (a) as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines; or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than 20 percent opacity. Rule 402 prohibits the discharge of air contaminants in quantities that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public. Additionally, the Project would be required to provide training and awareness of Valley Fever **MM AQ-1**. **MM AQ-1** would further ensure worker safety through education and ensuring implementation of required California Division of Occupational Safety and Health (Cal/OSHA) safety measures.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

With the implementation of **MM AQ-1**, the potential for the release of CI spores, if present, and the associated potential for workers or nearby residents to contract Valley Fever from Project construction activities would be minimized. Accordingly, the Project would not add significantly to the existing exposure level of construction workers or nearby residents to the CI fugus. Therefore, potential impacts would be less than significant with mitigation incorporated.

MM AQ-1 Minimize Exposure to Potential Valley Fever-Containing Dust. Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan (VFMP) and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction:

- An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever.
- Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction.
- Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.
- Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators.
- Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.

e) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

According to the CARB's CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants,

composting, refineries, landfills, dairies, and fiberglass molding. The Project includes construction of a PV electricity generation and energy storage facility and does not include any uses identified by the CARB as being associated with odors.

Project construction activities may generate detectable odors from heavy-duty equipment exhaust. However, construction-related odors would be short-term in nature and cease upon completion of Project construction. Further, the nearest potential residence is too far from the Project Site to detect construction odors. In addition, the Project would be required to comply with the CCR, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors, if any, from heavy-duty equipment exhaust. Therefore, potential impacts would be short-term and are considered less than significant.

As previously noted, land uses associated with odor complaints do not typically include PV electricity generation and energy storage facilities. During operations, the Project would generate an estimated 6 trips internal to the Project Site for required maintenance activities and approximately 4 trips associated with solar panel washing activities, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips). Project operational vehicle trips would be minimal and not of sufficient number to create concentrations of odorous fumes to form and cause a nuisance. As such, potential impacts would be easily dispersed in the atmosphere and are less than significant.

4. BIOLOGICAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☐	☒	☐	☐

The findings discussed below are based on the Biological Resources Assessment (BRA) prepared by Kleinfelder (see **Appendix C-1**) and the Biological Resources Supplemental Memorandum (Supplemental Memorandum) prepared by Rincon Consultants, Inc. (Rincon) (see **Appendix C-2**).[11;12]

Existing vegetation on the Project Site includes inactive agriculture/ruderal land and rubber rabbitbrush scrub that recolonized the Project Site after agricultural operations were discontinued. In addition, according to a January 2023 field survey conducted for the BRA, a row of juniper trees was planted along the western boundary of the Project Site sometime between the mid-1980s and mid-1990s. The Los Angeles County General Plan describes juniper woodland as an important habitat feature that supports multiple wildlife species in a concentrated area. However, this row of trees does not fall into the category of juniper woodland as described in the Plan, as it is not a natural aggregation of trees and does not therefore provide the benefits of a true woodland. This is due to the linear configuration of the trees directly adjacent to the road and the fact that approximately half of the trees were dead at the time the field survey was performed in January 2023. At present, the row of juniper trees provides little habitat value to wildlife. The Project would likely require the removal of one to three of the planted trees to support construction of the proposed access road into the Project Site. However, since the juniper trees are not a natural aggregation of trees and do not support substantial habitat value to wildlife, Project impacts would not be adverse.

No special-status plant species were observed during the January 2023 and April 2025 field survey, and none are expected to occur within the Project Site due to a lack of suitable habitat, history of agricultural on-site disturbance, or the fact that the Project Site is outside of the species' known range.

Eleven special-status avian species have a moderate potential to occur within the vicinity of the Project Site. Four of these species are known to occur within the two-mile/nine-quad search radius of the Project area in the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife's (USFWS) Information for Planning and Consultation (IPaC) searches: burrowing owl (*Athene cunicularia*)[13], loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), and Swainson's hawk (*Buteo swainsoni*). The Project Site and adjacent areas contain suitable habitat for these species, and there are several documented occurrences of these species within two to six miles of the Project Site. The

[11] Kleinfelder, Biological Resources Assessment, February 2023, Updated October 2024. Appendix C-1 of this IS/MND.
[12] Rincon Consultants, Inc., Biological Resources Supplemental Memorandum, May 2025. Appendix C-2 of this IS/MND.
[13] Based on Rincon's protocol-level BUOW survey conducted according to CDFW guidelines on April 3, 2025, no burrows of suitable size were observed during the survey, and no BUOW were detected. Therefore, there would be a low potential for this species to occur.

remaining seven bird species are listed on Part I of the Los Angeles County Sensitive Bird Species List, including ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides*), prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), turkey vulture (*Cathartes aura*), and western meadowlark (*Sturnella neglecta*). Most bird nests and eggs are protected under the California Fish and Game Code (CFGC) Section 3503 and the Migratory Bird Treaty Act (MBTA). Common native and non-native species such as white-crowned sparrow (*Zonotrichia leucophrys*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mountain bluebird (*Sialia currucoides*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*) have a potential to nest and/or forage in vegetation within and/or near the Project Site. Additionally, raptors that occur in agricultural landscapes such as barn owls (*Tyto alba*) and American kestrels (*Falco sparverius*) often nest in palm trees such as those found on-site, foraging in adjacent fields. Swainson's hawk (SWHA) occurrences in the vicinity of the Project Site are concentrated more than 15 miles east of the Project Site around Lancaster and east of Lancaster. A SWHA survey was performed by qualified Rincon biologists on April 15, 2025. No SWHA were observed within the 0.5-mile buffer of the Project Site during the survey. There is only one CNDDB documented occurrence of SWHA within 5 miles of the Project Site, dated 2020. Direct impacts (e.g., injury or mortality) to nesting birds or indirect impacts (e.g., noise, dust) that disrupt nesting behavior and reproductive success would be potentially significant. Additionally, trash and waste items generated from Project construction and operational activities could attract predators such as raccoons and American crows that could prey upon sensitive wildlife species, which would also result in potentially significant impacts.

The Project would be required to implement a nesting bird survey (see **MM BIO-1**) during construction and decommissioning for compliance with the MBTA and CFGC Guidelines and to reduce impacts on nesting birds to less than significant. The Project also would implement **MM BIO-2**, which requires avoidance buffers around any active SWHA nests, should the pre-construction nesting bird survey detect active SWHA nests. Nesting bird surveys will not be required during O&M activities due to the low frequency and short duration of O&M activities over the life of the Project (e.g., panel washing 2-3 days per year with 1-2 personnel and a pickup truck. However, the Project would be required to implement **MM BIO-3** to ensure that all persons working on the Project (during construction, O&M, and decommissioning) received worker environmental awareness training. The Project would also be required to implement **MM BIO-4** and **MM BIO-5** to properly contain trash receptacles and visually check all equipment, respectively.

On October 10, 2024, the California Fish and Game Commission designated the western burrowing owl as a candidate for listing under the California Endangered Species Act. As discussed in the Supplemental Memorandum, Rincon biologists performed a protocol-level burrowing owl (BUOW) survey on April 3, 2025 according to the CDFW 2012 *Staff Report on Burrowing Owl Mitigation.* No burrows of suitable size (4 inches or greater) were observed during the survey, and no BUOW were detected. Nevertheless, even with the low potential for BUOW to occur on the Project Site, the Project would implement pre-construction surveys and avoidance measures specific to BUOW (see **MM BIO-6**).

Additionally, there are two special-status mammal species with a low potential to occur within the Project Site: American badger (*Taxidea taxus*), a California species of special concern, and desert kit fox (*Vulpes macrotis arsipus*). There is low-quality habitat for American badger and desert kit fox in the Project area. No burrows of suitable size to support these species were observed during the field survey. As previously discussed, no burrows of suitable size for desert kit fox or American badger were observed during the April 3, 2025 BUOW survey. There are only two documented occurrences of American badger within eight miles of the Project area; one has no date or owner information, and the other is from 1906. Occurrence records for desert kit fox

are not kept by the CNDDB or IPaC, as this species is not listed under Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA); however, desert kit fox is protected by Title 14, Section 460 of the CCR (furbearing mammals). Therefore, the Project will be required to implement **MM BIO-3** through **MM BIO-5** as well as pre-construction surveys and avoidance/eviction plans for desert kit fox (see **MM BIO-7**) and American badger (see **MM BIO-8**).

The Crotch's bumble bee (*Bombus crotchii)* is a candidate species under the California Endangered Species Act. The Crotch's bumble bee requires availability of suitable colony nesting sites, floral resources to obtain nectar and pollen throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for queens. While there is low quality habitat for the Crotch's bumble bee on the Project Site, the species has been documented in the Antelope Valley. A formal habitat assessment was performed on April 8, 2025 to determine if suitable nesting or foraging habitat for Crotch's bumble bee is present on the Project Site. Rincon biologists observed potentially suitable foraging and nesting habitat; however, the Project Site provides limited suitable habitat compared to surrounding areas due to previous agricultural activities, and no bumble bees were observed during the habitat assessment. A protocol survey pass was performed on April 21, 2025 by two qualified Rincon biologists, each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed. Accordingly, there is low potential for Crotch's bumble bee on the Project Site. Nevertheless, the Project would implement **MM BIO-9** to minimize potential impacts to Crotch's bumble bee.

A rare plant survey was performed on April 8, 2025 by two Rincon botanists. No rare plants were observed on the Project Site. The vegetation communities mapped on the Project Site included cheat grass grassland and rubber rabbit brush scrub. Although some small patches of native wildflowers were observed on the Project Site (including California poppy [*Eschscholzia californica*] and yellowray goldfields [*Lasthenia glabrata*], none were large enough to be classified as a "wildflower field" according to Holland types and minimum mapping standards employed during the survey. Therefore, there is low potential for impacts to rare plants or sensitive vegetation communities. Nevertheless, to minimize the potential impacts to native vegetation and to promote Project Site revegetation following Project construction, the Project would implement **MM BIO-10** to minimize impacts to soil and native vegetation.

Solar PV panels have a strong polarization signature, which is an element thought to mimic water. As a result, some have theorized that PV panels can attract species that mistake the panels for bodies of water, potentially leading to increased risk of collisions, being stranded within site fencing once they land, or other forms of distress.[14] The phenomenon is sometimes referred to as the "lake effect." The strongest evidence for lake effect is mortality of water-dependent species found at PV solar farms in desert environments with no natural waterbodies in the region.[15] Recent studies have shown that some species of birds that use aquatic habitats could be attracted to solar PV panels; however, it is unlikely that all aquatic birds at all times would be attracted to the panels.[16] The potential for this effect also depends on the regional context and the availability of natural waterbodies near the solar site. There are large waterbodies within 12 miles of the Project Site, including Quail

[14] The Nature Conservancy of California, Mojave Desert Ecoregional Assessment, September 2010, https://www.scienceforconservation.org/assets/downloads/Mojave_Desert_Ecoregional_Assessment_2010.pdf. Accessed April 10, 2025.

[15] Kosciuch K, Riser-Espinoza D, Moqtaderi C, Erickson W., Aquatic Habitat Bird Occurrences at Photovoltaic Solar Energy Development in Southern California, USA. Diversity. 13(11):524, 2021, https://doi.org/10.3390/d13110524. Accessed April 10, 2025.

[16] Ibid.

Lake, Tehachapi Afterbay, and Fairmont Reservoir, but there are no large waterbodies within or directly adjacent to the Project Site. Therefore, the potential for aquatic birds to collide with solar PV panels due to "lake effect" is very small. Nevertheless, the Project would implement **MM BIO-11** to place panels in a close to vertical position at the end of the day. **MM BIO-11** would reduce the risk of birds attempting to land on the PV array at sunset or sunrise by mistaking it for water, and impacts would be reduced to less than significant.

With implementation of **MM BIO-1** through **MM BIO-11**, impacts to special-status species would be reduced to less than significant.

On a cumulative level, the 29-acre Project Site is consistent with the land uses analyzed in the Los Angeles County General Plan EIR. Given its small size, consistency with General Plan goals and policies addressing biological resources such as special-status species, wetlands, and sensitive habitats, and implementation of the listed mitigation measures, the Project would not have a cumulatively considerable effect on biological resources or habitat for special-status species. The potential effects of the Project on biological resources have been adequately addressed in the BRA and Supplemental Memorandum. Multiple surveys have been conducted on the Project Site from 2023 to 2025, and during that time, no special-status plant or wildlife species, sign of these species, or sensitive vegetation communities have been observed on the site. All burrows on the site were mapped and none were of sufficient size to support BUOW, desert kit fox, or American badger. Similarly, no rare plants were observed during focused surveys, and no sensitive habitat types, as defined by CDFW and California Native Plant Society (CNPS), have been mapped on the Project Site. The absence of special-status species and lack of high-value habitat on the site is likely due to past agricultural uses that included regular disking, which resulted in the degradation of natural habitats and disturbance of native soils, making it a poor candidate for burrowing animals and rare plants. Thus, the Project Site overall provides low quality habitat, and development of the Project Site would not cause a significant loss of high-value foraging, sheltering, or nesting habitat. The surrounding undeveloped parcels that have not been disturbed by agricultural uses are of much higher value to special-status species.

In addition to being of poor habitat value, the small footprint of the Project means that the relative scale of potential Project impacts is limited and contributes little to any potential cumulative effects in the larger vicinity of the Project, as it does not reduce movement corridors or significant amounts of potential habitat for special-status plant and wildlife species. In addition, the habitat on the Project Site would not be removed completely, as annual grassland will be retained under the arrays. This will provide foraging opportunities for multiple species. Moreover, the Project was designed to allow for movement around and through the arrays by requiring a gap at the bottom of the fence, therefore encouraging movement of wildlife species through and in the vicinity of the Project Site. The land that the Project is sited on has not been designated as critical habitat by USFWS, nor has it been set aside for conservation by any other entity. Although the Project Site may provide low-quality habitat for some species, the Project is subject to robust mitigation measures designed to avoid and minimize impacts to these species. Because of this, the Project would not result in significant impacts to any species as a whole or their habitat.

A realistic assessment of potential impacts of the Project has been taken into account, and the mitigation proposed is equivalent to the level of potential impacts. Although other solar projects have been developed or may be proposed in the vicinity of this Project in the future, those projects would be subject to similar measures designed to reduce impacts. As stated previously, the Project has been designed in a manner that avoids and minimizes potential impacts to biological resources to the maximum extent practicable. All Project-

related impacts would be less-than-significant due to robust mitigation measures that have been developed during the planning phase, as well as Project design elements that would limit potential impacts during construction and operation of the Project, and other projects would be subject to similar requirements designed to avoid and minimize impacts. Thus, cumulative impacts would be less than significant, and the Project's contribution to any cumulative impacts would not be cumulatively considerable.

MM BIO-1 **Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500-foot buffer (0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not be required during Operation & Maintenance activities.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.

MM BIO-2 Swainson's Hawk (SWHA). If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.

MM BIO-3 Worker Environmental Awareness Training. A qualified biologist shall conduct a worker environmental awareness training (WEAT) program, which shall be reviewed by Los Angeles County, for all persons working on the Project prior to the onset of construction for construction, operation and maintenance, and decommissioning activities. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered shall be included in the training. Special-status species, including legal protection, penalties for violations, and Project specific protective measures shall also be discussed. Contact information for the qualified biologist and other useful wildlife-related contacts (e.g., CDFW, venomous snake humane relocation services, etc.) shall be included in the WEAT. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training shall be maintained at the worksite with the Project supervisor, and a handout containing this information shall be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective measures. The WEAT shall be sent to the County for review prior to implementation.

MM BIO-4 Trash Receptacles. All trash and waste items generated by construction, operation and maintenance, and decommissioning or crew activities shall be properly contained in a covered and locked trash receptacle and/or removed from the Project Site daily. All containers shall be wildlife-proof. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species.

MM BIO-5 Common and Special-Status Wildlife Awareness. All Project personnel shall visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on-site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during constructional phases of the Project

(construction, O&M, and decommissioning), all excavated holes, ditches, or trenches greater than six (6) inches deep shall be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps shall be placed in excavations. After opening and before filling, such holes, ditches, and trenches shall be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) shall not contain monofilament netting.

All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire shall be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.

MM BIO-6 Burrowing Owl Avoidance. A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.

MM BIO-7 Desert Kit Fox. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season

(September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.

MM BIO-8 American Badger. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).

MM BIO-9 Crotch's bumble bee. A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

MM BIO-10 Vegetation and Revegetation. To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.

MM BIO-11 Panel Positioning. To minimize "lake effect" related adverse impacts to bird species, the panels shall be positioned overnight where they last tracked the sun or pre-positioned toward the east to capture sunrise (i.e., panels shall be in a close to vertical position) and provide documentation to the County upon request.

b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS?	☐	☐	☒	☐

The Project Site contains fallow land that was previously used for agricultural uses. Additional plant species beyond the existing ruderal vegetation are minimal and dominated by non-native species that likely colonized the Project Site after agricultural purposes were discontinued. According to the USFWS National Wetlands Inventory (NWI), a riverine feature is mapped outside the northwestern corner of the Project Site. However, this system is intermittent: the substrate is usually exposed, and surface water is present for variable periods without detectable seasonal periodicity.[17] Furthermore, the riverine system does not support any sensitive plant species within the Project Site, as vegetation within the Project Site is comprised of ruderal and non-native species, as mentioned above. Additionally, no wetland indicators (e.g., visible Ordinary High Water Mark [OHWM], bed and bank, soil surface cracks, hydrology, or hydrophytic vegetation) were observed in the vicinity of this feature or in any other part of the Project Site during the field survey, which was performed during the wet season. This feature is likely no longer present due to modification of the landscape during the last several decades of agricultural practices. Nevertheless, to avoid potential encroachment on the riverine system, the Project would include a 50-foot setback from the intermittent riverine system, and all Project construction and operational activities would be contained within the Project Site. No other sensitive natural communities were identified within the Project Site in the BRA. Therefore, the Project would not have a

[17] United States Fish and Wildlife Service, National Wetlands Inventory, https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

substantial adverse effect on any riparian habitats or other sensitive natural communities, and impacts would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐

As described in Checklist Question 4.b, a riverine feature is mapped outside the northwestern corner of the Project Site. However, the USFWS NWI identifies this system as an intermittent system in which the substrate is usually exposed, and surface water is present for variable periods without detectable seasonal periodicity. This feature is likely no longer present due to modification of the landscape during the last several decades of agricultural practices. No other jurisdictional waters or wetlands were identified on-site during the field survey, and no riparian vegetation, hydrologic, or wetland indicators were observed in the vicinity of the riverine feature or in any other part of the Project Site. Therefore, the Project would not have a substantial adverse effect on State or federally protected wetlands, and impacts would be less than significant.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

Existing vegetation on the Project Site includes inactive agriculture/ruderal land and rubber rabbitbrush scrub that recolonized the Project Site after agricultural operations were discontinued. According to the BRA, the Project Site is not recognized as an important wildlife corridor or native wildlife nursery site by any regional or state agency or jurisdiction and is not considered critical to the ecological functioning of adjoining open space areas. However, the Project Site likely supports local movement patterns and provides food and cover resources for common wildlife species such as coyotes (*Canis latrans*). Small mammal burrows were present throughout the Project Site. Additionally, as described in Checklist Question 4.a, special-status and common avian species could nest/forage within the Project Site and adjacent areas. Therefore, impacts to nesting or migratory species could be potentially significant. With implementation of **MM BIO-1** through **MM BIO-6,** impacts would be reduced to less than significant.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)?	☐	☐	☒	☐

Existing vegetation on the Project Site includes inactive agriculture/ruderal land and rubber rabbitbrush scrub that recolonized the Project Site after agricultural operations were discontinued. Additionally, as further explained in Checklist Question 4.a, the western boundary of the Project Site contains a row of juniper trees. The Los Angeles County General Plan describes juniper woodland as an important habitat feature that

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

supports multiple wildlife species in a concentrated area. However, the row of juniper trees on-site is not a natural aggregation of trees and therefore does not provide the benefits that a true woodland would and provides little habitat value to wildlife. Therefore, although the Project would remove one to three of these trees, the Project would not remove any natural aggregation of juniper trees. The Project Site does not contain any other oak or other unique native or protected trees. Therefore, impacts would be less than significant.

f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, Ch. 102), Specific Plans (L.A. County Code, Title 22, Ch. 22.46), Community Standards Districts (L.A. County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (L.A. County General Plan, Figure 9.3)? ☐ ☐ ☐ ☒

The Project Site is not within a Wildflower Reserve Area, Significant Ecological Area, Specific Plan, Community Standard District, or Coastal Resource Area outlined in the Los Angeles County General Plan or the Los Angeles County Code of Ordinances. The nearest protected area is a SEA for Joshua Tree Woodlands, located approximately one mile east of the Project Site, which would not be impacted by the Project. According to the BRA, the Project Site does not contain oak trees; therefore, the Project would not conflict with the Los Angeles County Oak Tree Ordinance. Additionally, as described in the Project Description above, the Project would not conflict with the standards outlined in the Los Angeles County's Renewable Energy Ordinance. Furthermore, as described in Checklist Question 2.b, although the Project Site is within an Agricultural Resources Area designated by the AVAP, the Project would not seek to change the zoning for the Project Site such that agricultural uses could not continue upon decommissioning. Upon decommissioning the Project, the land could be reclaimed for agricultural production in accordance with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. Therefore, Project implementation would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ☐ ☐ ☐ ☒

The Project Site is located within the West Mojave Habitat Conservation Plan (WMHCP). The WMHCP is a habitat conservation plan adopted by the Bureau of Land Management (BLM) in 2006. However, the plan only applies to BLM public lands, as other agencies did not adopt the habitat conservation plan proposed in the WMHCP to cover their jurisdictions[18]. Therefore, the plan provisions have not been adopted by the County. Thus, the Project does not conflict with the provisions of the WMHCP. The Project Site is not

[18] Los Angeles County, Los Angeles County General Plan Update Draft EIR, 2014, page 5.4-6 and 5.4-118 https://planning.lacounty.gov/wp-content/uploads/2022/11/gp_2035_deir.pdf. Accessed January 4, 2024.

	Less Than Significant		
Potentially Significant Impact	*Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

located within any other adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impact would occur.

5. CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?	☐	☐	☐	☒

The findings discussed below are based, in part, on the Cultural Resources Identification Report (CRIR) prepared by Kleinfelder (see **Appendix D**).[19]

The Project Site is undeveloped and is generally surrounded by undeveloped land and some sporadic rural residences and small- to large-scale solar installations to the north and east. As stated in the CRIR, the Project Site was used for agriculture until approximately 2011 or 2012 and appears to have remained fallow land since then. Based on background research and review of historic maps of the Project Site, no historic buildings or structures were identified within the Project Site. Since the on-site agricultural development is from 2011 or 2012 and no buildings or structures were identified on-site, no historical resources pursuant to CEQA Guidelines Section 15064.5 exist on the Project Site. Therefore, the Project would not cause any adverse change in the significance of a historical resource. No impacts would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?	☐	☒	☐	☐

Kleinfelder conducted a record search at the South Central Coastal Information Center (SCCIC) on February 6, 2023 which identified two previously recorded cultural resources within 0.5-mile of the Project Site. In February 2023, the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search returned with negative findings. The pedestrian survey found one isolated chert flake (portion of sedimentary rock) on-site. The isolated flake lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated, singular event. Therefore, it is not eligible as a cultural resource under the California Register of Historic Resources (CRHR) or the National Regional of Historic Places (NRHP) under any criteria.

No previously recorded prehistoric or tribal resources were identified on the Project Site. Additionally, since no buildings, structures, or historic-era resources were identified within the Project Site, the Project Site is considered to have a low sensitivity for buried historic-era resources. However, the Project Site is near an intermittent drainage located approximately 0.23-mile east of the Project Site. The proximity to a water source along with the presence of the prehistoric isolated chert flake indicates prehistoric activity in the area. Therefore, the Project Site has a moderate sensitivity for buried pre-historic resources, and impacts would be potentially significant during Project construction and ground-disturbing activities.

To address potential impacts to archaeological resources during Project constriction, the Project would be required to implement **MM CUL-1** and **MM CUL-2**. With implementation of **MM CUL-1** and **MM CUL-2**, the Project's potential impacts archaeological resources would be reduced to less than significant.

[19] Kleinfelder, Cultural Resources Identification Report, June 2023. Appendix D of this IS/MND.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Mitigation Measures

MM CUL-1 Worker Environmental Awareness Program. Prior to the start of ground disturbance, the Permittee shall hire a qualified archaeologist ("Project Archaeologist") to provide the construction crew with on-site training on the proper procedures to follow if cultural resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what such artifacts may look like when partially buried or wholly buried and then freshly exposed, a discussion of what prehistoric and historic-period archaeological deposits look like at the surface and when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and shall be provided to all individuals working on site.

MM CUL-2 Unanticipated Discovery of Cultural Resources. In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

MM CUL-3 Cultural Resources Monitoring. The Project Archaeologist shall be onsite to monitor ground disturbing activities twice a week or as determined by the lead agency in consultation with the consulting tribes referenced in MM TCR-1. Ground disturbing activities include clearing vegetation, grubbing, digging, pavement removal, grading, excavation, trenching, plowing, drilling, blasting, potholing/auguring, and stripping topsoil. The Project Archaeologist shall have the authority to increase or decrease the monitoring effort should the monitoring results indicate that a change is warranted.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

The Project Archaeologist shall consult with the Consulting Tribes (defined below) prior to increasing or decreasing the monitoring schedule. Monitoring requirements shall end once ground disturbing activities are complete.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The Project Site does not include any unique geologic features, and Project implementation would not directly or indirectly destroy a unique geologic feature. The Project Site has been previously disturbed by paving and agricultural activities. While there are no known paleontological resources on the Project Site, undiscovered paleontological resources may be discovered and disturbed during ground-disturbing activities, and impacts may be potentially significant. To address potential impacts to paleontological resources during Project constriction, the Project would be required to implement **MM CUL-4**. With implementation of **MM CUL-4**, the Project's potential impacts paleontological resources would be reduced to less than significant.

Project operation is not anticipated to require ground-disturbing activities. Therefore, no impacts to paleontological resources are anticipated during Project operation.

MM CUL-4 Unanticipated Discovery of Paleontological Resources. Prior to start of ground disturbance, the construction crew shall participate in on-site training on the proper procedures to follow if paleontological resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what paleontological resources may look like when partially buried or wholly buried and then freshly exposed, a discussion of what paleontological resources look like when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 50 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and should be provided to all individuals working on site.

In the event that paleontological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and a qualified paleontologist who meets the Society of Vertebrate Paleontology guidelines shall be contacted immediately to evaluate the resource. If the find is large enough to warrant further evaluation and/or extraction, then the following fossil "discovery" protocol shall be followed:

a) The paleontologist shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

b) The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study, or report.

c) Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

During ground disturbance activities, the Applicant shall submit a letter to the County for the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered.

d) Disturb any human remains, including those interred outside of dedicated cemeteries? ☐ ☒ ☐ ☐

The California Health and Safety Code (HSC) Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation and reburial procedures.

No human remains are known to be present on the Project Site. However, there is a possibility that human remains could be interred underneath the Project Site. Should human remains be encountered during Project construction, the Project would be required to implement **MM CUL-5**. With implementation of **MM CUL-5**, the Project's potential impacts to human remains would be reduced to less than significant.

MM CUL-5 Inadvertent Discovery of Human Remains. If human remains or funerary objects are encountered during construction, all ground disturbance activities within 100 feet of the discovery shall be suspended and the construction manager shall immediately notify the County coroner pursuant to State Health and Safety Code §7050.5. This state code shall be enforced for the duration of the Project. If the human remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission (NAHC). The NAHC shall identify and immediately notify the Most Likely Descendant (MLD) of the deceased Native American. Within 48 hours of being granted access to the site, the MLD shall complete the inspection of the site of the discovery and make recommendations to the Applicant/landowner for the treatment or disposition of the human remains and any associated funerary objects. All measures, as required by the County, shall be implemented under the supervision of the MLD and/or Tribal Monitor.

6. ENERGY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

The Project would increase the demand for energy at the Project Site during construction. The energy needs during Project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy. Construction equipment use and associated energy consumption would be typical for that associated with the construction projects of this size. Thus, the Project's energy consumption during the construction phase would not be considered wasteful, inefficient, or unnecessary.

The Project would not require natural gas at the Project Site during operations. The Project does not include any permanent components that would significantly increase demand for existing sources of energy. The Project would develop a solar energy and BESS facility that would provide a new secure and reliable electricity supply, improve community infrastructure, and support sustainable electricity generation. Project development would provide a clean, reliable resource and include energy storage to help integrate renewable energy sources, reduce dependence on gas-fired generation, eliminate ocean water for cooling, reduce freshwater consumption, and reduce greenhouse gas (GHG) emissions and criteria air pollutant emissions.

The analysis of construction and operational energy consumption is based on CalEEMod version 2022.1.1.21 modeling results for the Project. The Project's estimated energy consumption is based primarily on CalEEMod's default setting for the County and consumption factors provided by SCE, who is the electricity provider for the Project Site. The results of the CalEEMod and energy consumption modeling are included in **Appendix E**. The amount of operational fuel consumption was estimated using CARB Emission Factor 2021 (EMFAC2021) computer program which provides projections for typical daily fuel from CalEEMod. The estimated construction fuel consumption is based on the Project's construction equipment list timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips. Energy consumption associated with the proposed Project is summarized in **Table 6: Project and Countywide Energy Consumption.**

Table 6: Project and Countywide Energy Consumption

Energy Type	Project Annual Energy Consumption	Los Angeles County Annual Energy Consumption[1,2]	Percentage of Countywide Consumption
Construction[4,5]			
Electricity Consumption			
Water[1]	11,452 kWh	68,484,956,280 kWh	<0.00002%
Fuel Consumption[3]			
Diesel	24,992 gallons	532,570,627 gallons	0.0047%
Gasoline	7,051 gallons	3,536,229,368 gallons	0.0002%

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Operations				
Electricity Consumption				
Area[1]	0 kWh	68,484,956,280 kWh		<0.00001%
Water[1]	347 kWh			<0.00001%
Total Electricity	270 kWh			<0.00001%
Fuel Consumption[3]				
Diesel	93 gallons	532,570,627 gallons		0.00002%
Gasoline	0 gallons	3,536,229,368 gallons		0.0000%

Notes:

1. The Project increases in electricity consumption is compared with the total consumption in Los Angeles County in 2022.
2. The Project increases in automotive fuel consumption are compared with the Countywide fuel consumption (projected) in 2025 (start of construction).
3. Countywide fuel consumption is from the CARB EMFAC2021 model.
4. Construction fuel consumption is based equipment and load factors from California Emissions Estimator Model (CalEEMod version 2022.1.1.20).
5. The estimated construction fuel consumption is based on the Project's construction equipment list timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips.

Refer to **Appendix E** for assumptions used in this analysis.

Construction-Related Energy Consumption

During construction, the Project would consume energy in three general forms: (1) the fuel consumed by construction vehicles and equipment; (2) electricity associated with the conveyance of water used for dust control and (3) bound energy in construction materials, such as asphalt, steel, concrete, and pipes. It should be noted that the construction activities would not consume natural gas.

Project construction is anticipated to be completed over a period of up to approximately seven months. Thus, energy consumed during Project construction would be temporary and would not represent a significant demand on energy resources.

Construction Transportation Energy Demand: Fossil fuels such as gasoline and diesel would be consumed during Project construction. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction. VMT associated with transportation of construction materials and construction worker commutes would also result in fuel consumption. Heavy-duty construction equipment associated with construction activities would primarily rely on diesel fuel. It is conservatively assumed that construction workers would travel to and from the Project Site throughout construction in gasoline-powered vehicles.

As shown in Table 6, a total of 24,992 gallons of gasoline and 7,051 gallons of diesel is estimated to be consumed during Project construction. This constitutes percent 0.0047 percent and 0.0002 percent of the County's typical annual gasoline and diesel consumption, respectively. However, this fuel consumption would be short-term and finite, only being consumed over the course of the seven-month construction period. Additionally, some incidental energy conservation would occur during construction through compliance with State requirements and through USEPA and CARB engine emissions standards. These engine emissions

standards require the use of more efficient engines in vehicles and equipment to encourage fuel efficiencies and reduce fuel consumption. Further, idling time of vehicles and equipment will be minimized to limit the amount of fuel consumption while no work is being completed. Therefore, Project construction activities would comply with existing energy standards with regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not be considered wasteful, inefficient, or unnecessary. As such, the Project would have a less than significant impact as it relates to construction transportation energy demand.

Construction Electricity Demand: During construction of the Project, electricity would be consumed to supply and convey water for dust control. As shown in Table 6, a total of approximately 11,452 kWh electricity is anticipated to be consumed during Project construction. Electricity consumed during construction would result in a nominal increase (less than 0.00002 percent) in energy use in the County. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. As such, the demand for electricity during construction would not be considered wasteful, inefficient, or unnecessary. As such, the Project would have a less than significant impact as it relates to construction electricity demand.

Construction Material Energy Demand: The Project-related incremental increase in the use of energy bound in construction materials such as metal, concrete, and manufactured or processed materials would not substantially increase demand for energy compared to overall local and regional demand for construction materials. Additionally, it is noted that there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar projects of this nature. Further, energy consumed to construct a renewable energy project to reduce the State's GHG emissions from energy would not be considered wasteful, inefficient, or unnecessary. As such, the Project would have a less than significant impact as it relates to material energy demand.

Construction Conclusion: As summarized above, energy consumed during construction would result in a nominal increase in energy use in the County. As such, Project construction would have a minimal effect on the local and regional energy supplies. It is noted that construction energy use is temporary and would cease upon completion of construction activities. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction energy consumption would not be inefficient, wasteful, or unnecessary, and impacts would be less than significant.

Operational-Related Energy Consumption

During Project operations, energy would be consumed for multiple purposes, including, but not limited to panel washing and maintenance, BESS HVAC units, and lighting.

Operational Transportation and Fuel Energy Demand: Table 6 provides an estimate of the annual fuel consumed by the Project vehicles traveling to and from the Project Site during operations. During operation, the Project is estimated to generate approximately 20 one-way trips per year for typical O&M activities such as maintenance-related visits and solar panel and inverter washing visits. As a result of these 20 trips per year generated by the Project, the Project would consume approximately 93 gallons of diesel, which represents a 0.00002 percent

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

of the County's diesel use. Additionally, the Project does not propose any unusual features that would result in excessive long-term operational fuel consumption. Consequently, the proposed Project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities. Therefore, Project operations would not result in wasteful, inefficient, or unnecessary fuel consumption. As such, the Project would have a less than significant impact as it relates to transportation and fuel energy demand.

Energy Demand and Generation: During Project operation, the electricity usage for HVAC units, communications equipment, and other typical O&M activities would be minimal and would sufficiently offset by electricity produced by the Project. Additionally, the Project is anticipated to consume approximately 347 kWh for panel washing activities. As shown in Table 6, the Project's operational electricity consumption would constitute less than 0.00001 percent of the County's typical annual electricity consumption. The Project would not require additional energy capacity or supplies. Additionally, as a power-generating facility with solar PV and energy storage, the Project would generate energy that would ease stress on intensive peak or base period electricity demands. Furthermore, the Project would generate a significantly higher amount of energy that will consume.

The Project would provide the County and the State with additional renewable energy sources on previously disturbed land that would assist the State in complying with the Renewable Portfolio Standards (RPS) under Senate Bill (SB) 350 and SB 100. The increase in reliance of renewable energy resources further ensures that new development projects would not result in the waste of the finite energy resources. Therefore, the Project would not cause wasteful, inefficient, and unnecessary consumption of energy during Project operation, and impacts would be less than significant.

Operations Conclusion: As shown in **Table 6**, the Project's operational energy consumption would represent less than 0.00001 percent and 0.00002 percent of Countywide electricity and fuel consumption, respectively. Additionally, the Project would not result in a substantial increase in demand for transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure. Therefore, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy during operations, and impacts would be less than significant.

Decommissioning Related Energy Consumption

At the end of the Project's operational term, the Applicant may determine that the Project Site should be decommissioned and deconstructed. However, due to the lack of available in-depth details on decommissioning at this time, as a worst-scenario analysis, it was assumed that the decommissioning phase would utilize the same amount of energy as the construction phase. As discussed above, impacts related to construction-related energy consumption would be less than significant. As such, energy impacts during Project decommissioning would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ☐ ☐ ☒ ☐

Many of the regulations regarding energy efficiency are focused on increasing the energy efficiency of buildings and renewable energy generation, as well as reducing water consumption and reliance on fossil fuels.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

The Project, which comprises the building of solar PV and BESS, would be part of a sustainable solution to enable increasing amounts of renewable energy-generating sources to be accessed. The County's General Plan and AVAP include the following guiding policies and implementing policies related to energy resources.

- LU 11.1 Encourage new development to employ sustainable energy practices, such as passive solar techniques and/or active solar technologies.
- Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015.
- Policy AQ 3.5: Encourage energy conservation in new development and municipal operations.
- Policy PS/F 6.8: Encourage projects that incorporate onsite renewable energy systems.
- Policy C/NR 12.1: Encourage the production and use of renewable energy resources.
- Policy ED 1.2: Encourage and foster the development of the renewable energy economic sectors.
- Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.
- Goal COS 13: Utility-scale energy production facilities for offsite use that reduce consumption of nonrenewable resources while minimizing potential impacts on natural resources and existing communities.
- Policy ED 1.11: Encourage the development of utility-scale renewable energy projects at appropriate locations and with appropriate standards to ensure that any negative impacts to local residents are sufficiently mitigated.

The Project would not develop structures or buildings, so the Project would not be required to comply with the policies regarding buildings meeting the State energy efficiency standards. No conflicts with renewable energy or energy efficiency plans would occur. The applicable State plans and policies for renewable energy and energy efficiency include SB 350 and SB 100. As discussed under Checklist Question 6.a above, the Project would provide the County and the State with additional renewable energy sources. Additionally, the Project would support the State's RPS goals of achieving at least 60 percent renewable energy by 2030. Therefore, the Project is supportive of the County's policies and State's goals and would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐

The following geology and soils analysis is primarily based on the Geotechnical Engineering Investigation prepared by Salem Engineering Group, Inc., for the Project (see **Appendix F**).[20]

Fault rupture is the displacement that occurs along the surface of a fault during an earthquake. Based on criteria established by the California Geological Survey (CGS), faults can be classified as active, potentially active, or inactive. Active faults are those that have shown evidence of movement within the past 11,000 years (i.e., during the Holocene Epoch). Potentially active faults are those that have shown evidence of movement between 11,000 and 1.6 million years ago (i.e., during the Pleistocene Epoch). Inactive faults are those that have not exhibited displacement younger than 1.6 million years before the present. Additionally, there are blind thrust faults, which are low angle reverse faults with no surface exposure. Due to their buried nature, the existence of blind thrust faults is usually not known until they produce an earthquake.

The seismically active region of southern California is crossed by numerous active and potentially active faults and is underlain by several blind thrust faults. The CGS has established earthquake fault zones known as Alquist-Priolo Earthquake Fault Zones around the surface traces of active faults to assist cities and counties in planning, zoning, and building regulation functions. These zones identify areas where potential surface rupture along an active fault could prove hazardous and identify where special studies are required to characterize hazards to habitable structures. The Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, impacts related to rupture of a known earthquake fault would be less than significant.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

The Project Site is located within the seismically active Southern California region. For these reasons, the Project Site may be subject to shaking during earthquake events. The level of ground shaking that would be experienced at the Project Site from active or potentially active faults or blind thrust faults in the region would be a function of several factors including earthquake magnitude, type of faulting, rupture propagation path, distance from the epicenter, earthquake depth, duration of shaking, topography, and geology. The closest

[20] Salem Engineering Group, Inc., Geotechnical Engineering Investigation, November 2023. Appendix F of this IS/MND.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

known active fault to the Project Site is the San Andreas fault, located approximately 5.4 miles south of the Project Site, which could produce secondary effects from ground shaking.

Project construction would be required to adhere to applicable regulations in the 2022 California Building Code and County Building Code to minimize seismic-related hazards, because of the Project Site's location in seismically active southern California. Therefore, with compliance with applicable regulations, Project impacts related to seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction and lateral spreading? ☐ ☐ ☒ ☐

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile.

In general, the soils encountered during the Geotechnical Engineering Investigation conducted for the Project Site included silty sands to depths of approximately 10 to 15 feet below site grade (BSG) underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet BSG. Groundwater was not encountered to the depth of exploration conducted on the Project Site. Based on available water well data, historic groundwater depths are greater than 100 feet BSG. Based on the historic depth to groundwater (greater than 100 feet BSG), liquefaction/seismic settlement is not a concern to Project Site development.

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat Project Site topography, the likelihood of lateral spreading is low.

Based on the factors described above, Project impacts associated with seismic-related ground failure, including liquefaction and lateral spreading, would be less than significant.

iv) Landslides? ☐ ☐ ☐ ☒

There are no known landslides at the Project Site, or is the Project Site in the path of any known or potential landslides. The Project Site is relatively flat, ranging from approximately 2,821 to 2,825 feet above mean sea level. Further, the Project Site is not in immediate proximity to any mountains or steep slopes. As such, there is no potential for landslides to occur on or near the Project Site, and the Project would not expose people or structures to potential substantial adverse effects involving landslides. No impact would occur.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

During construction, the Project Site would be subject to ground-disturbing activities. These activities would expose soils for a limited time, allowing for possible erosion. Since Project construction would require greater than one acre of ground-disturbing activities, the Applicant would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP incorporates BMPs in accordance with the California Stormwater Best Management Practices Handbook, to control erosion and to protect the quality of surface water runoff during Project construction.

With respect to soil erosion during Project operations, the potential is relatively low due to the fact that the Project Site would be entirely developed and landscaped. The use of vegetation and groundcover would act as an effective barrier to soil erosion by impeding direct contact between precipitation/irrigation and on-site soils. Moreover, with implementation of operational BMPs per the County's Standard Urban Stormwater Management Plan (SUSMP), erosion of any exposed soil would be controlled, and associated impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

As stated in Checklist Questions 7.a)iii) and -iv), impacts related to liquefaction, lateral spreading, and landslides are considered less than significant.

Subsidence is commonly caused by the removal of subsurface water and underground mining. According to the United States Geologic Survey (USGS) Areas of Land Subsidence in California Map, there is no groundwater pumping, peat loss, or oil extraction at or near the Project Site.[21] The frames of solar modules would be mounted on steel posts, which would be driven or screwed into the ground to a depth between 8 and 10 feet. The Project does not propose any mining activities or removal of subsurface water. Additionally, groundwater was not encountered to the maximum depth of exploration of 21.5 BSG during exploration. The Project would be designed and constructed in accordance with the 2022 California Building Code, as enforced by the County, which includes building foundation requirements appropriate to site-specific conditions. With compliance with the California Building Code, impacts related to unstable geologic units or soils would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Subsurface soils within the Project Site include silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet BSG. An expansion

[21] United States Geologic Survey, Areas of Land Subsidence in California Map, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

index test indicated that the soils have very low expansion potential. With compliance with the California Building Code, impacts related to unstable geologic units or soils would be less than significant.

e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

The Project would be unmanned and does not propose to use septic tanks or alternative wastewater disposal systems. Temporary sanitary systems will be brought in during construction and removed when the Project is operational. Therefore, the Project would not result in impacts related to the use of septic tanks or alternative wastewater disposal systems.

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, Ch.22.104)?	☐	☐	☐	☒

As discussed in Checklist Question 7.a.iv, the Project Site is relatively flat and is not in immediate proximity to any hillsides or steep slopes. Therefore, it would not conflict with County ordinances related to hillside management and design standards, and no impact would occur.

8. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

The following GHG analysis is primarily based on the Greenhouse Gas Emissions Technical Memorandum prepared by Kimley-Horn (see **Appendix G**).[22] The AVAQMD's CEQA and Federal Conformity Guidelines identifies both annual and daily construction significant thresholds for GHG emissions of 100,000 $MTCO_2e$ and 548,000 pounds CO_2e, respectively.[23] The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the Project, the AVAQMD's numeric thresholds are used as the significance thresholds in addition to a qualitative discussion of the Project's compliance with applicable plans, policies, regulations, and requirements.

Project-related GHG emissions are not confined to a particular air basin; instead, GHG emissions are dispersed worldwide. No single project is large enough to result in a measurable increase in global concentration of GHG emissions. Therefore, impacts identified below are not project-specific impacts to global climate change, but the Project's contribution to this cumulative impact. The Project would result in direct and indirect GHG emissions. Direct GHG emissions include emissions from construction and decommissioning activities, and mobile sources, while indirect sources include emissions from energy consumption and water demand. The California Emissions Estimator Model (CalEEMod), version 2022.1.1.21, was used to estimate direct and indirect Project-related GHG emissions.

Construction

The Project would result in direct emissions of GHGs from construction. The approximate quantity of daily GHG emissions generated by Project construction equipment is depicted in **Table 7: Construction-Related Greenhouse Gas Emissions**.

Table 7: Construction-Related Greenhouse Gas Emissions

Category	**$MTCO_2e$**
Construction	329
Water Usage[1]	2.41
Total Construction	331.41
30-Year Amortized Construction	11
Note:	

[22] Kimley-Horn and Associates, Inc., Greenhouse Gas Emissions Technical Memorandum, October 2024. Appendix G of this IS/MND.
[23] Antelope Valley Air Quality Management District, CEQA and Federal Conformity Guidelines, August 2016, Table 6: Significant Emissions Thresholds, https://www.avaqmd.ca.gov/files/e5b34d385/AV+CEQA+Guides+2016.pdf. Accessed April 10, 2025.

1. Construction water usage emissions are based on an anticipated consumption of 13 (AF) during construction. During construction, water is anticipated to be supplied from an off-site source.

Source: CalEEMod version 2022.1.1.21. Refer to **Appendix G** for model outputs.

As shown in Table 7, the Project would result in the generation of approximately 331.4 metric tons of CO_2e ($MTCO_2e$) over the course of construction. Construction GHG emissions are typically summed and amortized over a 30-year period, then added to the operational emissions. The amortized Project construction emissions would be 11 $MTCO_2e$ per year. Once construction is complete, the generation of these GHG emissions would cease.

Operations

Operational or long-term emissions occur over the life of the Project. Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. Total GHG emissions from both construction and operation associated with the Project are summarized in **Table 8: Project Greenhouse Gas Emissions**.

Table 8: Project Greenhouse Gas Emissions

Emissions Source	**Annual $MTCO_2e$**	**Annual CO_2e (ton)**	**Daily CO_2e (pounds)**
Construction	11	12.2	7,917
Operations			
Area Source	19.8	21.8	242.0
Energy	0.0	0.0	0.0
Mobile	56.8	62.6	481
Waste	0.0	0.0	0.0
Water	0.0	0.0	0.0
Decommissioning	11	12.2	7,917
Total Project Emissions	***98.7***	***108.8***	***16,557***
AVAQMD Threshold	--	*100,000*	*548,000*
Exceeds Threshold?	**--**	**No**	**No**

Source: CalEEMod version 2022.1.1.21 Refer to **Appendix G** for model outputs (Annual $MTCO_2e$ and pounds per day).
1 $MTCO_2e$ = 1.10231 tons.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project Site should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements BMPs. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including the fences and the concrete pads that may support the inverters, transformers, and related equipment. The exterior fencing and gates would be removed, and materials would be recycled to the extent feasible. Project roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. The area would be thoroughly cleaned, and all debris removed. A collection and recycling program would be utilized to promote recycling of Project components and minimized disposal in landfills. Decommissioning is expected to take one year or less, using similar equipment and an equal or lower number of workers on a daily basis. As a worst-scenario analysis, it was assumed that GHG emissions related to decommissioning would be equal to the GHG emissions related to construction. This is a conservative (higher) estimate due to GHG emissions from electricity and vehicles are likely to be much lower 30 years in the future due to the continued implementation of existing regulations, plans, and policies.

Total Project-Related Sources of Greenhouse Gas Emissions

As shown in Table 8, the Project would generate approximately 108.8 tons of CO_2e (98.7 $MTCO_2e$) per year and approximately 16,557 pounds per day of CO_2e from construction, operations, and decommissioning. Therefore, the proposed Project's total GHG emissions would be below the AVAQMD thresholds of 100,000 tons CO_2e per year and 548,000 pounds CO_2e per day. Further, the Project is a solar generation and energy storage facility, which would meet regional and federal ambient air quality standards and offset GHG emissions that would otherwise have resulted from producing an equivalent amount of electricity from fossil fuel-fired electric generators. Thus, Project-related emissions would have a less than significant impact related to generation of GHG emissions.

b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Consistency with the Antelope Valley Area Plan

The AVAP includes goals and policies that all new projects are required to comply with, as applicable. Project consistency with the AVAP goals and policies is discussed in **Table 9: Project Consistency with the Antelope Valley Area Plan**. As depicted in Table 9, the Project would be consistent with the AVAP, and impacts would be less than significant.

Table 9: Project Consistency with the Antelope Valley Area Plan

Antelope Valley Area Plan Policy	Project Consistency
Policy LU 5.1: Ensure that development is consistent with the sustainable Communities Strategy adopted in 2012, an element of the Regional Transportation Plan developed by the Southern California Association of Governments.	**Consistent.** The Project is a solar generation and energy storage facility, which would meet regional and federal ambient air quality standards and offset GHG emissions that would otherwise have resulted from producing an equivalent amount of electricity from fossil fuel-fired electric generators. Therefore, the Project would be consistent with this policy.
Policy COS 9: Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.	**Consistent.** The Project would include BMPs to ensure the collection and recycling of modules upon decommissioning to avoid the potential for modules to be disposed of as municipal waste. Therefore, the Project would be consistent with this policy.
Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed**.**	**Consistent.** The proposed Project is a solar PV and energy storage facility that would utilize non-hazardous materials. Therefore, the Project would be consistent with this policy.
Policy COS 10.5: Encourage the development of emerging energy technologies, such as "solar roads".	**Consistent.** The Project would encourage the development of solar generation and energy storage facilities in Los Angeles County. The proposed Project would promote access to clean energy and displace fossil fuel energy production. Therefore, the Project would be consistent with this policy.
Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.	**Consistent.** At the end of the operation of the proposed Project, the Applicant may determine that the Project Site should be decommissioned and deconstructed. The area would be thoroughly cleaned, and all debris removed. A collection and recycling program would be utilized to promote recycling of Project components and minimized disposal in landfills. Therefore, the Project would be consistent with this policy.
Source: Antelope Valley Area Plan, June 2015.	

Consistency with the County's 2015 Community Climate Action Plan (CCAP)

The 2015 County Community Climate Action Plan (CCAP) describes the County's plan for reducing GHG emissions. Project consistency with the CCAP goals and policies is discussed in **Table 10: Project**

Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP). As depicted in Table 10, the Project would be consistent with the CCAP, and impacts would be less than significant.

Table 10: Project Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP)

Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	Project Consistency
BE-3 Solar Installation: Promote and incentivize solar installation for new and existing homes, commercial buildings, carports, and parking areas, water heaters, and warehouses.	**Consistent.** The Project would provide a solar generation and energy storage facility. The proposed Project would promote access to clean energy and help the region meet its RPS goals. Therefore, the Project would be consistent with this policy.
LUT-9 Idling Reduction Goal: Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications.	**Consistent.** The Project may include occasional light- and heavy-duty truck uses for operations and maintenance activities. Truck use associated with the Project would be required to comply with all CARB regulations, including the LCFS and newer engine standards. The Project would produce little waste during Project construction and operations. Therefore, the proposed Project would be consistent with this policy.
LU 12 Electrify Construction and Landscaping Equipment Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.	**Consistent.** The proposed Project would utilize electric equipment wherever feasible during Project construction, operations, and maintenance. Therefore, the proposed Project would be consistent with this policy.
Source: Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	

Consistency with the 2017 and 2022 CARB Scoping Plan

The 2017 and 2022 Scoping Plan identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. Provided in **Table 11: Consistency with the 2017 and 2022 Scoping Plan**, is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Project would be consistent with or exceed reduction actions/strategies outlined in the 2017 and 2022 Scoping Plan. As shown, the Project would be consistent with the 2017 and 2022 CARB Scoping Plan and potential impacts would be less than significant in this regard.

Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Table 11: Consistency with the 2017 and 2022 Scoping Plan

Actions and Strategies	Project Consistency Analysis
2017 Scoping Plan	
SB 350	
Achieve a 50 percent Renewables Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030.	**Consistent.** The Project includes the construction and operation of a renewable energy generation and storage facility. Therefore, the Project would help the State achieve the RPS goals. As such, the Project would be consistent with SB 350 (and SB 100).
Low Carbon Fuel Standard (LCFS)	
Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.	**Consistent.** This standard applies to all vehicle fuels sold in California including those that could be used in vehicles associated with the Project. The Project would be consistent with this goal.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	**Consistent.** As a solar renewable energy project, the Project would not emit a large amount of CH_4 (methane) emissions. Furthermore, the Project would comply with all applicable CARB and AVAQMD hydrofluorocarbon regulations. As such, the Project would be consistent with the SLCP reduction strategy.
Post-2020 Cap and Trade Programs	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals.	**Not Applicable.** As shown in **Table 3**, the Project is estimated to generate approximately 98.7 $MTCO_2e$ per year, which is below the 25,000 $MTCO_2e$ per year Cap-and-Trade screening level. Therefore, this goal is not applicable to the Project..
2022 Scoping Plan	
AB 1279	
Assembly Bill (AB) 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon	**Consistent.** As a solar renewable project, the proposed Project would promote renewable energy production and would generate less than significant GHG emissions from Project construction and operations. Community and utility-scale solar project with BESS will help the region and State meet its RPS goals and ultimately carbon neutrality. The Project would be consistent with this goal.

capture, utilization, and storage (CCUS) technologies.	
SB 1020	
SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target of 2045 to 2035.	**Consistent.** As a solar renewable energy project, the Project would promote renewable energy production. The Project brings zero carbon energy to the regional supply grid. The Project would be consistent with this goal.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the Project is consistent with applicable plans, policies, regulations and GHG reduction actions/strategies, such as those outlined in the AVAP, CCAP, and 2017 and 2022 Scoping Plan Update, including State laws listed above. Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Thus, the Project would not make a cumulatively considerable contribution to significant cumulative climate change impacts, and impacts would be less than significant.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐

The following hazards and hazardous materials analysis is primarily based on the Phase I Environmental Site Assessment (ESA) prepared by HEI Corporation (see **Appendix H**).[24] Construction would involve short-term use of hazardous substances such as fuels, lubricants, adhesives, and solvents. The potential risk associated with the accidental discharge during use and storage of such construction-related hazardous materials is considered low because the use, storage, transport, and disposal of hazardous materials used in construction of the facility would be carried out in accordance with federal, state, and County regulations. These regulations include those set forth by the Los Angeles County Department of Environmental Health, Cal/OSHA, the California Accidental Release Prevention (CalARP) Program, the California HSC, and the USEPA Hazardous Waste Control Act. Additionally, the Project would implement BMPs pursuant to the NPDES Construction General Permit. Typical construction BMPs include, but are not limited to, watering soil, soil cover of inactive areas, gravel bags, and fiber rolls. Safety Data Sheets (SDSs) for all applicable materials present on the Project Site would be made readily available to personnel as required by the Los Angeles County Department of Environmental Health. During construction, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets, with waste being disposed of at approved sites.

Underground electrical conductors would be installed in trenches at a depth in compliance with the National Electric Code. The conductors would be buried in either a PVC conduit or equivalent. This may include preparing a Business Emergency Contingency Plan and securing a Certified Unified Program Agency (CUPA) Permit for hazardous materials handling and/or hazardous waste generation, as required by the Los Angeles County Department of Environmental Health.

Operation of the Project would include limited chemical use such as lithium ion in the battery structures. The Project is designed to comply with the Los Angeles County Code of Ordinances and Los Angeles County Department of Environmental Health requirements, and all materials would be used in stable applications and contained in accordance with applicable regulatory requirements, which include the Hazardous Materials Transportation Act, International Fire Code, and CCR Titles 22 and 27. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS will be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Following compliance with the applicable regulations, impacts would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☐	☐	☒	☐

[24] HEI Corporation, Phase I Environmental Site Assessment, July 27, 2022. Appendix H of this IS/MND.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

According to the Phase I ESA, there are no recognized environmental conditions associated with the Project Site. Therefore, it is unlikely that development of the Project Site would result in the release of hazardous materials into the environment. See also the discussion in Question 9.a, above, regarding the control of hazardous substances used during construction and operation. Impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive lands? ☐ ☐ ☒ ☐

Nearby sensitive uses include residences south of the Project Site, with the closest one located adjacent to the Project Site. In addition, there are no existing or proposed schools within one-quarter mile of the Project Site. The nearest school is Lancaster High School approximately 20 miles southeast of the Project Site in the City of Lancaster. As described in Checklist Question 9.a, Project operations would involve minimal chemical use and would be required to comply with regional, State, and federal regulations. Furthermore, as there are no existing structures on-site, the Project Site does not pose any hazards related to lead or asbestos. Therefore, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing proposed school. Impacts would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ☐ ☐ ☐ ☒

According to the Phase I ESA, the Project Site is not located on a known site or in the vicinity of a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would result in no impacts associated with hazardous materials sites.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ☐ ☐ ☐ ☒

There are no public airport or public use airports within two miles of the Project Site. The nearest airport is Lloyd's Landing Airport, a private airport located approximately 15 miles northeast of the Project Site in Kern County. The nearest public or public use airport is the Mountain Valley Airport located approximately 23 miles north of the Project Site in Kern County. Therefore, the Project Site is not located within an airport land use plan or within two miles of a public airport or public use airport, and no impact would occur.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Regional access to the Project Site would be provided via SR 138, which is identified as a Primary Disaster Route (Freeway) in the County.[25] Project-related construction activities could temporarily impact street access and traffic flow due to roadway improvements and potential extension of construction activities into the rights-of-way for utility connections, resulting in temporary lane closures. However, Project construction would not require the complete closure of any public streets during construction. Furthermore, signage and flag crews would direct the flow of traffic with the lane closure. Temporary construction activities would not impede use of the streets for emergencies or access for emergency response vehicles. The Project would not interfere with protocol identified in the Los Angeles County Operational Area Emergency Response Plan.[26] Further, the Project design and Project Site access would be reviewed by the LACFD and the Los Angeles County Sheriff's Department (LACSD) to ensure that emergency access would be maintained. Project operations would require minimal traffic that would not impact use of the streets for emergencies or access for emergency response vehicles. Therefore, the Project would not conflict with the County's adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving fires, because the project is located:				
i) within a high fire hazard area with inadequate access?	☐	☐	☒	☐

According to the State of California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone (FHSZ) Map, the Project Site is located in a Local Responsibility Area (LRA) and is not within a Very High FHSZ.[27,28] Project design and Project Site access would adhere to LACFD regulations. Therefore, the Project would not expose people or structures, either directly or indirectly, to a significance risk of loss, injury, or death involving wildland fires because the Project is located within a fire hazard severity area with inadequate access, and impacts would be less than significant.

ii) within an area with inadequate water and pressure to meet fire flow standards?	☐	☐	☒	☐

As part of the County plan review process, the LACFD has requested that a 10,000-gallon water storage tank be kept on-site during Project operation. As no existing infrastructure adjacent to the Project Site would

[25] Los Angeles County Department of Public Works, Disaster Routes with Road District North Los Angeles County, 2012, https://pw.lacounty.gov/dsg/disasterroutes/map/disaster_rdm-North.pdf. Accessed January 4, 2024.
[26] Los Angeles County, Operational Area Emergency Response Plan, 2012, https://ceo.lacounty.gov/wp-content/uploads/2019/12/OAERP-Approved-Adopted-Version-6-19-2012.pdf. Accessed January 4, 2024.
[27] California Department of Forestry and Fire Protection (CAL FIRE), State Responsibility Area Fire Hazard Severity Zones, 2023, https://osfm.fire.ca.gov/media/1hxhnkbu/fhsz_county_sra_11x17_2022_losangeles_2.pdf. Accessed January 4, 2024.
[28] CAL FIRE, Los Angeles County Draft Fire Hazard Severity Zones in LRA, 2011, https://osfm.fire.ca.gov/media/7280/losangelescounty.pdf. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

require water and pressure fire flow standards, and with inclusion of the 10,000 gallon water storage tank, impacts would be less than significant.

iii) within proximity to land uses that have the potential for dangerous fire hazard?	☐	☐	☐	☒

As described in Checklist Question 9.g.i, the Project Site and surrounding area is not within a Very High FHSZ. No impacts would occur.

h) Does the proposed use constitute a potentially dangerous fire hazard?	☐	☐	☒	☐

The Project would construct a solar PV facility and BESS. Project construction activities would be consistent with other construction activities in the region and would not represent an increased fire risk. All construction vehicles and equipment would comply with applicable regulations to limit the potential for malfunction.

Operation of the proposed BESS could potentially cause a fire hazard. The Project would install redundant safety measures, such as hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. Further, pursuant to Los Angeles County Code of Ordinances Title 32, the Project would be required to comply with the California Fire Code. The Project would also be required to comply with the AVAP Policies PS 1.1 through 1.4 and PS 7.1 through 7.3, which require implementation of fire prevention measures, compliance with the California Fire Code, and provision of adequate emergency services and access. Equipment associated with the Project such as transformers, capacitors, electric transmission lines, vehicles, and gas- or electric-powered small hand tools may be potential sources of ignition during construction and operation and maintenance. To address potential fire risks, the Project would comply with the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code. These regulations implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of utility scale BESS. The Project would also implement fire and safety features including hydrogen detection, active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression technology. Furthermore, the Project Site would be serviced by an on-site access road, which would be designed in accordance with LACFD requirements and accessed by operation and maintenance staff and emergency responders in the event of an emergency. With compliance to the California Fire Code and the AVAP, the Project would not constitute a potentially dangerous fire hazard, and impacts would be less than significant.

Module Level: The first priority in fire safety is to prevent an event from ever occurring and limit the extent of that fire if it does occur. Pursuant to the National and International Fire Codes, the voltages, currents, and temperatures of battery modules would be required to be monitored and controlled 24 hours 7 days a week to ensure every cell remains within its safe operating parameters. These monitoring and control systems are required to transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected. If a module-level system failure is detected, the system automatically controls and isolates individual modules from the rest of the system preventing the conditions that could lead to an event. Furthermore, battery manufacturers must prove that battery modules, if they catch fire, will not cause a fire to propagate to other modules, racks, or other enclosures. As part of this process, manufacturers must show that their batteries can pass rigorous UL 1973 and UL 9540A testing and certification. This testing includes demonstration of adequate system controls and alarms, separations between

equipment, protections such as fire-retardant barriers and coatings, fire suppression systems, and ventilation systems to limit failure to a single battery module.

Container Level: The National and International Fire Codes contain safety standards for construction of battery enclosures include: mounting, elevation of enclosures from the ground, materials, fire resistant barriers as well as requirements addressing insulation, wiring, switches, transformers, spacing and grounding; safety standards for performance, such as tests for temperature, volatility, impact, overload of switches, and an impact drop test; as well as standards for manufacturing, ratings, markings, and instruction manuals. In addition to the many individual standards referenced, a Failure Mode and Effects Analysis (FMEA) must be performed for each system enclosure and requires a test to ensure safe compatibility of the system's parts. The Project would also be equipped with integrated fire and safety systems, such as air cooling/conditioning systems, deflagration, gas-ventilation, gas, heat and smoke detection and alarms, and fire extinguishing and suppression systems within each container.

Site Plan Level: The Project Site layout is designed for operational safety pursuant to California Fire Code requirements, including fire access routes, setbacks, 10,000-gallon water tank for fire department use only, and fire-resistant perimeter walls.

Operational Level: The Project would obtain an operational permit and would be operated in accordance with the California Fire Code's standards for commissioning, inspection, repair, and decommissioning. This will include the creation and implementation of an Emergency Response Plan as required by applicable law that will govern coordination and response to a fire emergency at the Project Site.

Compliance with the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code, as well as inclusion of the Project's fire and safety features, would reduce the potential for a fire event. Implementation of these safety measures would reduce fire risk, and impacts would be less than significant.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐

The following hydrology and water quality analysis is primarily based on the Onsite and Offsite Drainage Report (Drainage Report) prepared by Kimley-Horn (see **Appendix I**).[29] The Project would be required to obtain a NPDES General Permit for Discharges of Storm Water Associated with Construction and Land Disturbance Activities. Compliance with the General Construction Permit requires the development of a SWPPP by a qualified SWPPP developer, the elimination or reduction of non-stormwater discharge off site into storm drainage systems or other water bodies, and the implementation of BMPs throughout the Project construction period. Stormwater BMPs would be required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during Project construction activities. The SWPPP requires a description of the Project Site; identification of sources of sediment and other pollutants that may affect the quality of stormwater discharges; and a list of BMPs to provide sediment and erosion control, waste handling measures, and non-stormwater management. The specific BMPs that would be implemented with the Project would be identified during development of the SWPPP, which would occur concurrently with final Project design and be completed prior to construction. Typical construction BMPs include, but are not limited to, watering soil, soil cover of inactive areas, gravel bags, and fiber rolls. Compliance with the SWPPP would ensure that construction activities would not degrade the surface water quality of receiving waters to levels that would exceed the standards considered acceptable by the Lahontan Regional Water Quality Control Board (LRWQCB) or other regulatory agencies.

Maintenance of the Project would include cleaning, inspections, drive motor repair, tracker repair, electrical connection repair, and panel replacement. Cleaning of the solar panels is expected to be conducted one to four times per year, and water used would not contain any cleaning agents or other additives. No on-site operations and maintenance buildings are proposed, and all facilities would be unmanned. Therefore, the Project would not violate any water quality standards or waste discharge requirements. Impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the projects may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

The Project would obtain construction and operational water by purchasing it from a local purveyor. The Project Site is located within the Antelope Valley Groundwater Basin, which is managed by the Antelope Valley Regional Water Management Group that includes 11 public agencies such as the Antelope Valley-East Kern Water Agency (AVEKWA), City of Palmdale, City of Lancaster, Littlerock Creek Irrigation District, Palmdale Water District, Quartz Hill Water District, and Rosamond Community Services District. The total

[29] Kimley-Horn and Associates, Inc., Onsite and Offsite Drainage Report, September 2024. Appendix I this IS/MND.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

storage capacity is estimated at 68 million to 70 million AF.[30] Natural recharge is estimated at approximately 29,000 to 58,000 AF per year with an annual extraction of approximately 130,000 AF.[31,32] The primary source of recharge to the groundwater basin is runoff from surrounding mountain ranges.

Water services to the Project Site are provided by AVEKWA. AVEKWA obtains potable water from groundwater and imported water, which are sourced from the Antelope Valley Groundwater Basin and the State Water Project, respectively. The Antelope Valley Groundwater Basin was adjudicated in 2015 per the Judgment and Physical Solution for the Antelope Valley Groundwater Adjudication (Judgment), which governs most groundwater pumping in the AVEKWA service area. The Judgement stipulated production rights to each party, and other methods to access additional groundwater rights, such as from imported water return flows. AVEKWA's customers have 12,084 acre-feet per year (AFY) of production rights and have received roughly 12,000 AFY of return flow rights since 2016.[33]

Construction and operational water would be provided by AVEKWA. Water demand during construction would be trucked in and is estimated at 13 AF. Operational water use would be small, estimated at approximately 0.2 AF per year or less. The small amount of water to be used and the large amount of permeable surface within the Project Site would not deplete groundwater supplies or interfere substantially with groundwater recharge such that a net deficit in aquifer volume or a lowering of the local groundwater table level would result. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii) Substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐

[30] Antelope Valley Regional Water Management Group, Antelope Valley Integrated Regional Water Management Plan, 2019, page 2-28, https://pw.lacounty.gov/wwd/avirwmp/docs/finalplan/2019%20Final%20AV%20IRWMP.pdf. Accessed January 5, 2024.
[31] United States Geological Survey, Water-Level Studies in the Antelope Valley and Fremont Valley Groundwater Basins, https://ca.water.usgs.gov/projects/antelope-valley/antelope-valley-study-area.html, Accessed January 5, 2024.
[32] Antelope Valley Regional Water Management Group. Antelope Valley Integrated Regional Water Management Plan, page 2-29.
[33] Antelope Valley-East Kern Water Agency, 2020 Urban Water Management Plan, 2021, https://www.avek.org/files/f2739f83e/AVEK+2020+UWMP_FINAL.pdf. Accessed March 25, 2025.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

As previously mentioned in Checklist Question 10.a, the Project would not result in substantial erosion or siltation, as BMPs would be implemented during construction in compliance with the SWPPP and the General Construction Permit issued for the Project, which would ensure that erosion and siltation do not result in any off-site water quality impacts. Los Angeles County Code of Ordinances Chapter 12.84 requires that the Project implement site design measures, source control, and/or permanent post-construction pollutant and hydro-modification control BMPs to reduce sediment from erosion or siltation to the maximum extent practicable from entering stormwater runoff during operations. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with surface runoff. Furthermore, as described in Checklist Question 10.c.iv, pursuant to the County's LID and hydromodification requirements, the Project would be required to construct retention basins to attenuate assumed increases to peak flow and volume. Additionally, spoils from excavation of the basin would be distributed on-site in a manner that would not substantially alter pre-development drainage patterns. As such, the Project would not substantially alter the existing drainage pattern of the Project Site or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site. Impacts would be less than significant.

iv) Impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk or loss or damage involving flooding?	☐	☐	☒	☐

According to Figure 12.2b of the Los Angeles County General Plan, the Project is not within or in proximity to a County Capital Flood floodplain. According to the Federal Emergency Management Agency (FEMA) Flood Map Service Center and Figure 12.2a of the County General Plan, the Project Site is entirely within Zone X (unshaded). The Project Site is also adjacent to portions of land designated Zone A to the northwest and southeast. Zone X (unshaded) is defined as minimal risk areas outside the 0.2-percent-annual-chance floodplain. Zone A is defined as special flood hazard areas (SFHAs) subject to inundation by the one percent annual chance of flooding with no base flood elevations determined.[34] As the Project is adjacent to areas designated as Zone A, the Drainage Report included analysis of the Project's potential impacts to on-site and off-site runoff flows and discharge volumes. According to the Drainage Report, post-development peak flow rates for a 50-year storm event would exceed those of pre-development conditions by 41,690 cubic feet. Pursuant to the County's LID and hydromodification requirements, the Project would be required to construct retention basins capable of retaining 42,336 cubic feet of flow to attenuate assumed increases to peak flow and volume.

As the volume of the proposed retention basin is greater than the proposed change in peak flow rates, installation of the retention basin would attenuate peak runoff flows. Therefore, no increase in runoff flow rates or discharge volumes would be anticipated from pre-development to post-development conditions up to the 50-year storm event. Furthermore, Project equipment would be designed such that it is at least 12 inches above the base flood elevation (BFE) and therefore would be designed in a manner so as not to add or decrease baseline stormwater on- or off-site. Additionally, the Project would include a 10-foot landscape buffer along the perimeter of the Project Site to reduce potential Project impacts on flood flows. With

[34] Federal Emergency Management Agency (FEMA), FEMA Flood Map Service Center, https://msc.fema.gov/portal/home. Accessed January 5, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

implementation of these measures, the Project would not significantly impede or redirect flood flows, and impacts would be less than significant.

d) Otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements?	☐	☐	☒	☐

As discussed in Checklist Question 10.c.iv, the Project Site is not located within or near a County capital Flood floodplain area but is located adjacent to Federal 100- year flood hazard areas. The Project would be required to construct an on-site retention basin that would contain peak runoff flows for the 50-year storm event. Construction of the proposed retention basin would result in no increase in runoff or flow rates or discharge volumes for the 50-year storm event. Additionally, Project equipment would be designed such that it is at least 12 inches above the BFE, and a 10-foot landscape buffer would be located along the perimeter of the Project Site. Implementation of these measures would sufficiently reduce the risk of damage due to flooding. No additional flood proofing or flood insurance would be required for the proposed Project, and impacts would be less than significant.

e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 22, Ch. 12,84)?	☐	☐	☒	☐

The Project would be required to comply with the Los Angeles County LID Ordinance, which is intended to promote sustainability and improve the County's watersheds by preserving drainage paths and natural water supplies to "…retain, detain, store, change the timing of, or filter stormwater or runoff." As described in Checklist Question 10.c, implementation of the Project would not substantially change drainage patterns, the amount of runoff, and the square footage of impervious surfaces compared to those under existing conditions. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with surface runoff. As such, the Project would not conflict with the Los Angeles County LID Ordinance. Impacts would be less than significant.

f) Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?	☐	☐	☐	☒

As mentioned above, the Project would be unmanned during operations, with no habitable structures or restroom facilities. Temporary sanitary facilities would be placed on-site during construction and removed upon operation. Any operational water that may be required for routine maintenance would be trucked in from off site. The Project would therefore not construct on-site wastewater treatment systems, and no impact would occur.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

The Project Site is located approximately 55 miles from the Pacific Ocean and is therefore not at risk of tsunami. As described in Checklist Question 10.c.iv, the entire Project Site is within Zone X (unshaded) but is adjacent to areas designated Zone A by FEMA. Furthermore, according to the California Division of Safety of Dams Dam Breach Inundation Map Web Publisher, the Project Site is not within an area of dam breach inundation.[35] Therefore, the Project would not release pollutants due to Project inundation, and no impact would occur.

h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

As mentioned above, the Project would be unmanned during operations, with no habitable structures or restroom facilities. Any operational water that may be required for routine maintenance would be trucked in from off site. The majority of the Project would be vegetated and remain pervious to allow infiltration of precipitation. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with groundwater recharge. As a result, the Project would not conflict with or obstruct implementation of the Antelope Valley Integrated Regional Water Management Plan or a future water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.

[35] California Department of Water Resources Division of Safety of Dams, Dam Breach Inundation Web Publisher, https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2. Accessed January 4, 2024.

11. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

Existing development in the area includes rural access roads and sparce rural residences. The Project Site is located in an unincorporated part of the County, and the Project Site is primarily bordered by undeveloped vacant land. Therefore, the Project would not divide an established community. No impact would occur.

b) Cause a significant environmental impact due to a conflict with any County land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

The Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The current land use designation for the Project Site is RL10 and is zoned A-2-2. Per the Area Plan Rural Preservation Strategy Map, the Project Site is located within the "Rural Preserve Area," which are generally defined as areas of the unincorporated Antelope Valley that are largely undeveloped and generally not served by existing infrastructure and public facilities. According to the General Plan, renewable energy production facilities, like the Project, are "allowed in Rural Land designations without a Plan Amendment." As mentioned in Checklist Question 2.b, the Project is also within an Agricultural Resource Area designated by the AVAP. The Project is considered as a "utility scale solar facility," which requires a CUP in the A-2 Zone pursuant to Los Angeles County Code of Ordinances Section 22.16.030.[36] As described in other sections, the Project would be consistent and would not conflict with relevant policies of the County's General Plan; AVAP (including the Land Use Element, Mobility Element, Conservation and Open Space Element, Public Safety, Services, and Facilities Element, and Economic Development Element of the AVAP); and the Los Angeles County Code of Ordinances, including the development standards of the Los Angeles County Renewable Energy Ordinance (Section 22.140.510) for fencing, height, lighting, setbacks, and landscaped buffers requirements.

The AVAP represents a comprehensive vision for growth within the Area Plan area, which encompasses the Antelope Valley region of Los Angeles County. As a component of the Los Angeles County General Plan, the AVAP refines the countywide goals and policies in the General Plan by addressing specific issues relevant to the region. The vision for the AVAP includes creating a pattern of development that reinforces the region's small-town and rural feel. The Project Site would allow for the proposed solar PV and BESS uses, and the Project would not seek to rezone the Project Site. Upon decommissioning of the Project, the Project Site could fully restore the property as defined in the Project's Decommissioning Plan. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project's Decommissioning Plan. Furthermore, the Project Site is not located within an SEA, Economic Opportunity Area, or Community Standards District outlined by the AVAP. Therefore, the Project would

[36] Los Angeles County Code of Ordinances, Title 22 – Planning and Zoning, Division 7 – Standards for Specific Uses, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO_DIV7STSPUS. Accessed January 4, 2024.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

not conflict with the County's General Plan, the AVAP, or the Los Angeles County Code of Ordinances, and impacts would be less than significant.

c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas?	☐	☐	☐	☒

Hillside Management Areas (HMAs) are defined as areas with 25 percent or greater natural slopes. The Project Site is not located within a Hillside Management Area. The Project Site is also not within a SEA. Therefore, no impact would occur.

12. MINERAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

According to Map 4.4 of the AVAP, the Project Site is not located within a Mineral Resource Zone (MRZ).[37] According to the California Department of Conservation Mines Online map, the closest active mine is the La Liebra mine (ID 91-15-0045), an open pit sand and gravel mine that is located approximately 9.5 miles northwest of the Project Site.[38] Furthermore, according to the California Department of Conservation Well Finder, there are no active oil or gas wells on or around the Project Site.[39] The closest well to the Project Site is a plugged dry hole approximately 1.8 miles north of the Project Site. Due to the relative distance from any active mining sites, the Project would not result in the loss of availability of mineral resources that would be of value to the region and the residents of the State. No impact would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

As mentioned above in Checklist Question 12.a, the Project Site is not located in a MRZ. Additionally, the Project does not involve extensive grading or excavation that would preclude the extraction of any potential mineral resources in the future. No impact would occur.

[37] Los Angeles County, AVAP, Map 4.4.
[38] California Department of Conservation Division of Mine Reclamation, Mines Online, 2016, https://maps.conservation.ca.gov/mol/index.html. Accessed January 5, 2024.
[39] California Department of Conservation Geologic Energy Management Division, Well Finder, https://maps.conservation.ca.gov/doggr/wellfinder/. Accessed January 5, 2024.

13. NOISE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project result in:				
a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☐	☐	☒	☐

The following noise analysis is primarily based on the Noise Technical Memorandum prepared by Kimley-Horn (see **Appendix J**).[40]

Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation). Noise would be generated by construction equipment, including earth movers, and material handlers. During construction, exterior noise levels could affect the nearest sensitive receptors in the vicinity of the construction site. The nearest sensitive receptor is a residential use located approximately 110 feet to the south of the Project Site. However, construction activities would occur throughout the Project Site and would not be concentrated at the point closest to the sensitive receptor.

Project construction is anticipated to be completed over a period of approximately seven months. The Project involves construction activities associated with demolition, site preparation, grading, construction/installation, PV panel vendor trips, and paving (road access installation). **Table 12: Typical Construction Noise Levels** reflects maximum sound levels (L_{max}) that could be expected from the equipment-types listed at a reference distance of 50 feet from the noise source, which are the highest individual sound occurring at an individual time period. Operating cycles for the listed types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other sources of construction noise could include random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Table 12: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source (L_{max})
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88

[40] Kimley-Horn and Associates, Inc., Noise Technical Memorandum, April 2025. Appendix J of this IS/MND.

Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Mounted Impact Hammer (hoe ram)	90
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scraper	85
Shovel	82
Truck	84
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018; Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.	

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to calculate the worst-case construction noise levels at the nearest sensitive receptor in the vicinity of the Project Site during construction. The modeled receptor location represents the closest existing receiving land use to Project construction activities. Noise levels at other sensitive receptors surrounding the Project Site would be located further away and would experience lower construction noise levels than the closest receptors modeled.

The Los Angeles County Code of Ordinances establishes quantitative construction noise standards. Construction activities should not exceed those listed in Los Angeles County Code of Ordinances Section 12.08.440 Construction Noise. The Ordinance sets forth a threshold of s. Under the Ordinance, construction activities also shall be limited to the daytime hours of 7 a.m. to 8 p.m. Monday through Saturday. Construction is prohibited on Sundays and on Holidays. Since construction equipment would move throughout the Project Site during each of the construction phases, the mobile equipment threshold of 75 dBA was used for this analysis.

The noise levels calculated in **Table 13: Project Construction Noise Levels** show estimated noise levels for the worst-case construction noise scenario without accounting for attenuation from intervening barriers, structures, or topography. The nearest noise sensitive receptor (residential use) is located approximately 110 feet to the south of the Project Site. Following the Federal Transit Administration (FTA) methodology, when calculating construction noise, all equipment is assumed to operate at the center of the Project Site because equipment would operate throughout the Project Site and not at a fixed location for extended periods of time. Therefore, the distance used in the RCNM model for the Project Site was 718 feet for the nearest sensitive receptor (i.e., residential use) to the center of the Project Site.

Other receptors in the Project vicinity would be located further away and would experience lower construction noise levels than the closest receptor modeled. All construction equipment was assumed to operate simultaneously to represent a worst-case noise scenario as construction activities would routinely be spread throughout the construction site and would operate at different intervals.

Table 13: Project Construction Noise Levels

Construction Phase	Land Use	Receptor Location			Noise Threshold[2] (dBA L_{eq})	Exceeded?
		Direction	Distance (feet)[1]	Worst Case Modeled Exterior Noise Level (dBA L_{eq})		
Demolition	Residential	South	718	63.3	75	**No**
Site Preparation	Residential	South	718	58.9	75	**No**
Grading	Residential	South	718	59.2	75	**No**
Construction/Installation	Residential	South	718	71.8	75	**No**
PV Vendor Trips	Residential	South	718	56.9	75	**No**
Paving	Residential	South	718	49.9	75	**No**

1. Per the methodology described in the FTA *Transit Noise and Vibration Impact Assessment Manual* (September 2018), distances are measured from the nearby sensitive receptor property line to the center of the Project construction site.
2. The Los Angeles County Code of Ordinances Section 12.08.440 Construction Noise establishes a threshold of 75 dBA for residential uses.

Source: Federal Highway Administration, Roadway Construction Noise Model, 2006. Refer to **Appendix J** for noise modeling results.

As depicted in Table 13, the closest sensitive receptor could be exposed to temporary and intermittent noise levels up to 72 dBA during the overlap of Construction/Installation, which would not exceed the County's residential construction noise standard of 75 dBA L_{eq}. As previously noted, noise levels presented in Table 14 are conservative, as these noise levels assume the simultaneous operation of all construction equipment at the same precise location. More likely, construction equipment would be used throughout the Project Site and would not be concentrated at the point closest to the nearest sensitive receptor. Therefore, impacts would be less than significant.

Construction Traffic: Construction activities would also cause increased noise along access routes to and from the Project Site due to movement of equipment and workers, as well as hauling trips. Grading at the Project Site would be balanced on-site and no import or export of soil is anticipated. It is anticipated that construction worker trips would be a maximum of 41 total daily trips, water truck trips from off-site wells would be a maximum of 11 daily trips, and vendor trips would be a maximum of 2 daily trips (PV panel vendor trips). As a result, mobile source noise would increase along access routes to and from the Project Site during

construction. However, mobile traffic noise from construction trips would be temporary and would cease upon completion of Project construction. Further, construction activities would be limited to the daytime hours of 7 a.m.to 8:00 p.m. Monday through Saturday and prohibited on Sundays and on Holidays. Therefore, upon compliance with the County's allowable construction hours, short-term noise impacts from construction traffic would be less than significant.

Operations

Operation and maintenance of the Project would include permanent and temporary noise sources associated with the solar PV systems, electrical collection lines, gen-tie power lines, BESS, and maintenance activities. For purposes of this analysis, noise regulations included in the Los Angeles Code of Ordinances have been utilized.

Solar PV Systems: The solar PV arrays would include operation of single-axis tracking systems. Single-axis tracking systems employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise.

Noise from the tracker motor is approximately 40 dBA at 10 feet from the source. During daylight hours, the tracking system motors would operate for a short period of time (normally two seconds) and pause for a longer period of time (about five minutes) before operating again. After sunset and before sunrise the next day, the array must reset to face easterly; this reset motion occurs once daily and takes approximately three minutes. The nearest sensitive noise receptor to any tracker would be the residential use located approximately 110 feet to the south of the Project Site. At this distance, noise levels associated with solar PV array tracker would be inaudible. Impacts would be less than significant.

Inverters and Transformers: Additional permanent noise sources from the Project Site would include small-scale inverters, AC combiner boxes, medium voltage transformers, and/or medium voltage switchgear. Small-scale inverters typically generate 65 dBA at 1 meter (3.28 feet) and medium voltage transformers typically generate 63 dBA at 1 meter (3.28 feet). The inverter, transformer, and switchpad would be located within the center portion of the Project Site. As the nearest sensitive receptor could be located as close as 110 feet south from the Project's fence line, small-scale inverter and medium voltage transformer noise levels would be inaudible at the nearest sensitive receptor.

Electrical Collection Lines: The Project includes installation of collection lines. Therefore, noise levels associated with electrical collection lines would be inaudible at the nearest sensitive receptor, which is located approximately 110 feet to the south of proposed collection lines. Impacts would be less than significant.

Battery Energy Storage System (BESS): The primary noise source associated with BESS operations would be the use of heating, ventilation, and air conditioning units (the BESS does not generate noise itself). The Project includes a BESS, which would require multiple heating, ventilation, and air conditioning units to operate simultaneously. Standard HVAC units for similar energy storage projects produce 52.3 dBA at a distance of 50 feet during full operation. The BESS would be located in the southwest area of the Project Site. Therefore, a distance of 130 feet, measured from the nearest BESS unit at the southwest corner of the Project Site to the nearest sensitive receptor was used for the calculated BESS HVAC noise levels. At this distance, noise levels

from the BESS HVAC units are estimated at approximately 44.0 dBA. Therefore, the Project would not exceed County daytime or nighttime noise standards of 50 dBA and 45 dBA, respectively. Impacts would be less than significant.

Maintenance Activities: The Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities and would not increase personnel daily trips external to the site when compared to existing conditions. Project maintenance activities would include 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips). These activities are not expected to occur on a daily basis and would not generate a significant amount of traffic or create a substantial increase of vehicular noise in the area. Any increase in traffic would be minimal and sporadic; therefore, impacts from vehicular noise would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities would result in a temporary increase in ambient noise levels in the Project vicinity. Given the fact that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable to assume that noise generated from decommissioning activities would be similar in nature to construction activities. Similar to the construction noise analysis above, Project decommissioning would potentially result in increased noise levels compared to existing conditions. However, the Los Angeles County Code of Ordinances, states that construction activities shall be limited to the daytime hours of 7 a.m. to 8 p.m. Monday through Saturday and construction is prohibited on Sundays and on Holidays. Noise associated with decommission also would be expected to fall below the County's construction noise threshold of 75 dBA, as discussed above. Therefore, upon compliance with the County's allowable construction hours; short-term noise impacts from decommissioning activities would be less than significant.

b) Generate of excessive ground borne vibration or groundborne noise levels? ☐ ☐ ☒ ☐

Project construction would include demolition, site preparation, grading, construction/installation, PV vendor trips, and paving (access road installation) but would not require blasting. While these construction activities would result in groundborne vibration, such groundborne vibration would attenuate rapidly from the source and would not generally be perceptible beyond the boundaries of the Project Site.

The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 inches per second [in/sec]) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. Caltrans and the FTA have identified various vibration damage criteria for different building classes. As the closest receptor is a residential use, this evaluation uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 in/sec peak particle velocity (PPV) and the human annoyance criterion of 0.04 in/sec PPV. The vibration produced by

construction equipment is illustrated in **Table 14: Typical Vibration Levels for Common Construction Equipment**.

Table 14: Typical Vibration Levels for Common Construction Equipment.

Equipment	Reference PPV at 25 feet (in/sec)	Approximate PPV at 110 feet (in/sec)[1]
Vibratory Compactor/Roller	0.210	0.023
Large bulldozer	0.089	0.010
Loaded trucks	0.076	0.008
Small bulldozer	0.003	<0.001

Notes:
1. Calculated using the following formula:
   PPV equip = PPV_{ref} x $(25/D)^{1.5}$
   where: PPV (equip) = the peak particle velocity in inch-per-second of the equipment adjusted for the distance
   PPV (ref) = the reference vibration level in inch-per-second from Table 7-4 of the FTA Transit Noise and Vibration Impact Assessment Manual
   D = the distance from the equipment to the receiver

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Groundborne noise and vibration decreases rapidly with distance. As indicated in Table 14, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from <0.001 to 0.023 in/sec PPV at 110 feet from the source of activity. The nearest noise-sensitive receptor to the Project Site is a residence located approximately 110 (measured from the edge of construction activity to the nearest structure) feet to the south of the Project Site boundary line. At these distances, vibration velocities would be imperceptible (i.e., up to 0.023 in/sec PPV for a vibratory roller at the Project Site). Therefore, the 0.2 in/sec PPV architectural damage significance threshold and the 0.04 in/sec PPV human annoyance criteria would not be exceeded as a result of Project construction activities. Thus, no sources of groundborne vibration or groundborne noise would be expected to affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

Operations

The Project would have operation and maintenance components, such as HVAC systems for the BESS, maintenance vehicles, small-scale inverters, and medium voltage transformers, that would not generate noticeable groundborne vibration levels. Project operations would not involve any sources capable of generating perceptible levels of vibration in the surrounding area. There would be no permanent source or potential to change vibration levels, except during unscheduled maintenance or repair activities, which would be similar to construction activities. Regular maintenance trucks could generate 0.076 in/sec PPV a distance of 25 feet (refer Table 14). Pursuant to the FTA, Transit Noise and Vibration Impact Assessment Manual, groundborne vibration should not exceed 0.2 in/sec PPV at the nearest property line within a residential, commercial, and industrial land use zoning district. Land use zoning districts surrounding the Project Site include Heavy Agriculture Zoning (A-2-2), which allow residential uses. Although residential land use zoning

districts surround the Project Site, regular maintenance trucks would not generate groundborne vibration levels exceeding the FTA's 0.2 in/sec PPV vibration threshold at the Project Site boundary. As the nearest vibration-sensitive receptor is located approximately 110 feet from the Project Site (measured from the edge of construction activity to the nearest structure) and structures in the Project area are not located nearer than 25 feet to roadways, operational vibration levels at the nearest off-site receptors would be imperceptible. Thus, the FTA's 0.2 in/sec PPV vibration threshold would not be exceeded, and impacts would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities could result in temporary vibration impacts at close distances. Given that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, vibration generated from decommissioning activities would be similar in nature to construction activities. As with the construction activities described above, decommissioning activities would not be expected to generate groundborne noise that would affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

As discussed in Checklist Question 9.e, there are no public airport or public use airports within two miles of the Project Site. No impacts would occur.

14. POPULATION AND HOUSING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

The Project would develop a solar energy facility with BESS and does not include residential uses. The Project would not induce substantial population growth in the area because the Project does not propose extension of new major infrastructure or uses that would induce substantial unplanned population growth.

Project construction would temporarily increase the number of persons present at the Project Site, with the on-site construction workforce expected to peak at approximately 50 people. However, these workers would only be present at the Project Site during construction of the Project Site. Once operational, the Project Site would not require the same amount of staff needed during construction. The Project Site would be unmanned and would only require minimum staff for inspection and maintenance and would not introduce a significant amount of employment that would require additional permanent housing within the area. Impacts would be less than significant.

b) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The Project would not displace housing as the Project Site consists of undeveloped vacant land. The nearest residence is located approximately 110 feet south of the Project Site. This residence would not be impacted by the Project as construction and operation of the Project would be contained entirely within the boundaries of the Project Site. The Project would not displace off-site housing, and no impact would occur.

15. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐

Fire protection and prevention services are provided by the LACFD. The closest LACFD station to the Project Site is LACFD Station 112 located at 8812 W Avenue E 8, approximately 14 miles east of the Project Site. The entire LACFD is staffed with a total of 228 engine companies, 34 truck companies, 112 paramedic units, and numerous other specialized apparatuses.[41]

Construction

The Project would construct a solar PV facility and BESS on fallow land and would not involve the construction or physical alteration of a fire station. Construction activities associated with the Project may temporarily increase the demand for fire protection and emergency medical services, and may cause the occasional exposure of combustible materials, such as plastics, sawdust, covering and coatings, to heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings. However, in compliance with Cal/OSHA, all construction managers and personnel would be trained in fire prevention and emergency response. Furthermore, fire suppression equipment specific to construction would be maintained on the Project Site. Further, pursuant to Los Angeles County Code of Ordinances Title 32, the Project would be required to comply with the California Fire Code. As applicable, construction activities would be required to comply with AVAP Policies PS 1.1 through 1.4 and PS 7.1 through 7.3, which require implementation of fire prevention measures; as well as the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code, which implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of BESS. The Project would also be required to comply with Energy Storage Standard UL 9540 and UL 9540a, and applicable NFPA standards.

Project-related construction activities could temporarily impact street access and traffic flow due to roadway improvements, and potential extension of construction activities into the rights-of-way along 230th Street W for utility connections and construction of the proposed access roads, resulting in the temporary closure of the lane closest to the Project Site. However, Project construction would not require the complete closure of any public streets during construction. Furthermore, signage and flag crews would direct the flow of traffic with the lane closure. Temporary construction activities would not impede use of the streets for emergencies or access for emergency vehicles. Further, the Project design and Project Site access would be reviewed by LACFD to ensure that emergency access would be maintained. During temporary partial street closure, emergency access and traffic detours would be established in coordination with the County.

[41] Los Angeles County Fire Department, Los Angeles County Fire Department 2022 Strategic Fire Plan, 2022, https://osfm.fire.ca.gov/media/ugwfw535/2022-los-angeles-county-unit-fire-plan.pdf. Accessed January 6, 2024.

	Less Than Significant		
Potentially Significant Impact	*Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Due to the limited duration of construction activities, maintenance of emergency access, and compliance with applicable codes, Project-related construction would not be expected to adversely impact firefighting and emergency services so as to necessitate a new or expanded fire station in order to maintain acceptable service ratios, response times, or other performance objectives of the LACFD. Therefore, construction impacts on fire protection and emergency medical services would be less than significant and no mitigation measures are required.

Operation

The Project would be a solar PV and BESS facility that would not induce significant or unplanned population growth such that there would be a need for new or physically altered fire protections or emergency services. Further, as mentioned in Checklist Question 9.h, the BESS will be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code; Energy Storage Standard UL 9540 and UL 9540a; National Fire Protection Association (NFPA) standards; AVAP Policies PS 1.1 through 1.4 and PS 7.1 through 7.3, which require implementation of fire prevention measures; as well as the 2022 California Fire Code, 2021 National Fire Code, and 2021 International Fire Code, which implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of BESS. Compliance with applicable international, federal, State, and local regulations, as well as inclusion of the Project's fire and safety features, would reduce the potential for a fire event. Therefore, the Project would maintain acceptable service ratios, response times, and other performance objectives for fire protection services. Impacts to fire protection would be less than significant.

Sheriff protection? ☐ ☐ ☒ ☐

The Project Site is served by the LACSD. The nearest LACSD station is in the City of Lancaster at 501 W Lancaster Boulevard, approximately 23 miles southeast of the Project Site.

Construction

Since the daytime population generated at the Project Site during construction (i.e., construction workers) would be temporary in nature, construction of the Project would not generate a permanent population on the Project Site that would substantially increase the demand for police services. However, construction sites can be sources of nuisances and hazards and invite theft and vandalism. When not properly secured, construction sites can contribute to a temporary increased demand for police protection services. As such, during Project construction, the Project Site would be fenced or screened along the perimeter to minimize trespassing, vandalism, short-cut attractions and attractive nuisances.

Project-related construction activities could temporarily impact street access and traffic flow due to roadway improvements, and potential extension of construction activities into the rights-of-way along 230th Street W for utility connections and construction of the proposed access roads, resulting in the temporary closure of the lane closest to the Project Site. However, Project construction would not require the complete closure of any public streets during construction. Furthermore, signage and flag crews would direct the flow of traffic with the lane closure. Temporary construction activities would not impede use of the streets for emergencies or access for police vehicles. Further, the Project design and Project Site access would be reviewed by the LACSD to ensure that emergency access would be maintained. During temporary partial street closure, emergency access and traffic detours would be established in coordination with the County.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

Given the visibility of the Project Site from adjacent roadways and surrounding properties, existing police presence in the County, maintained emergency access, and construction fencing, the Project's construction activities are not expected to increase demand on existing police services to an extent that a new police facility would be required. Therefore, construction of the Project would have a less than significant temporary impact on police protection.

Operation

During Project operations, the Project would be unmanned, remotely monitored, and fenced for security. As previously stated, the Project would not introduce additional permanent residences to the Project Site that would require increased demand for public services including police protection. Furthermore, the Project Site would be serviced by an on-site access road, which would be accessed by operation and maintenance staff and emergency responders in the event of an emergency. Therefore, the Project would not substantially impact service ratios, response times, or other performance objectives related to police protection. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services. Impacts would be less than significant.

Schools? ☐ ☐ ☐ ☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be sourced from the County or surrounding counties and/or be active for only a few months. During operations, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Employees would be traveling from an existing area to the Project, and would not require expansion of public services, including expanding school services to the area to service new residences. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools. As such, the Project would not result in an increase in population in the area that would necessitate additional schooling services. No impacts would result from the Project.

Parks? ☐ ☐ ☐ ☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be active only for the duration of the construction phase. During operations, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Staff would be traveling from an existing area to the Project. As such, the Project would not result an increase in population into the area that would necessitate additional park services. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks. There would be no impact in this regard.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Libraries?	☐	☐	☐	☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be active only for the duration of the construction phase. During operations, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Staff would be traveling from an existing area to the Project. As such, the Project would not result an increase in population into the area that would necessitate additional library services. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for libraries. There would be no impact in this regard.

Other public facilities?	☐	☐	☐	☒

Project construction would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area. As such, the Project would not cause an increase in population in the area that would necessitate addition of other public facilities such as hospitals, and most employees would likely visit hospitals near their homes. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities such as hospitals or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities such as hospitals. There would be no impact in this regard.

16. RECREATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

The Project involves construction of a solar PV facility in a rural area of unincorporated Los Angeles County. No public parks or recreational facilities are in the vicinity of the Project Site. The Project does not propose any residential uses that may increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. The Project would include additional employment during construction. However, the employees would only be present during the construction phase. As discussed in Checklist Question 15 above regarding Parks, the Project would be unmanned and would only require minimum staff for inspection and maintenance over approximately 6 maintenance-related visits and 4 solar panel and inverter washing visits per year. Employees would be traveling from an existing area to the Project and therefore, would not require expansion of any parks or recreational facilities. Therefore, the construction or expansion of recreational facilities would not have an adverse physical effect on the environment. No impacts would occur.

c) Would the project interfere with regional trail connectivity?	☐	☐	☐	☒

The Project Site is in an agricultural area with limited tall or dense development in the vicinity. As stated in Checklist Question 1.b, according to the Los Angeles County General Plan, there are no regional trails near the Project Site. The closest trail is the Pacific Crest Trail approximately 5.7 miles west of the Project Site at the trail's closest point. Given distance between the Project Site and the Pacific Coast Trail, the Project Site would not interfere with the trail. There would be no impacts on this trail or other regional multi-use trails.

17. TRANSPORTATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycles, and pedestrian facilities?	☐	☐	☒	☐

Construction

Automobile and truck traffic volumes associated with Project-related construction activities would vary throughout the construction phases, as different activities occur. It is anticipated that construction worker trips would be a maximum of 41 total daily trips, water truck trips would be a maximum of 11 daily trips, and vendor trips would be a maximum of 2 daily trips (PV panel vendor trips). All construction activities would be staged within the Project Site, apart from the construction of an access road via 230th Street W into the Project Site that would encroach onto the existing right-of-way. At times in which the access road is constructed, the lane closest to the Project Site may have to be temporarily closed. However, during temporary partial street closure, emergency access and traffic detours would be established in coordination with the County. Additionally, Project-related construction traffic would be temporary and cease upon construction completion. Construction traffic associated with the Project would have a less than significant impact.

The Los Angeles County General Plan's Mobility Element discusses the County's goals to create a balanced transportation system that serves bicyclists and pedestrians as well as motor vehicles. Additionally, the AVAP's Mobility Element discusses goals and policies to create a balanced, multi-modal transportation system across Antelope Valley. Regional access to the Project Site is provided via SR 138 to the south of the Project Site. 230th Street W is a two-lane roadway adjacent to and west of the Project Site. There are no existing pedestrian sidewalks or bicycle facilities along 230th Street W. The Project's trips during construction would not impact the generally free-flowing traffic that characterizes the SR 138 segments south and east of the Project Site, respectively. The Project does not propose any modifications to any pedestrian or bicycle facilities and would not interfere with any future plans as none are located in the Project vicinity.

Public transit service is provided by the Antelope Valley Transit Authority (AVTA).[42] The AVTA 9 Route goes through the urbanized areas of the Antelope Valley region but does not travel near the Project Site. No public transit stations are located in close proximity to the Project Site. The nearest public bus transit stops are provided at the station on 60th Street, approximately 17 miles southeast of the Project Site. Project construction would be temporary in nature and would not result in any road closures and therefore would not affect public transit service operation. Therefore, construction of the Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

Operation

Project maintenance activities would include facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and

[42] Antelope Valley Transit Authority, Local Transit Service, https://www.avta.com/userfiles/files/System-Map-2021.pdf. Accessed January 6, 2024.

periodic panel and inverter washing. It is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips). These activities are not expected to occur on a daily basis and therefore would not generate a significant amount of traffic in the area.

Similar to Project construction, the Project's trips during operation would not impact the generally free-flowing traffic that characterizes the SR 138 segments south of the Project Site. The Project does not propose any modifications to any pedestrian or bicycle facilities, and would not interfere with any future plans as none are located in the Project vicinity. Additionally, as discussed above, no public transit stations are located in close proximity to the Project Site, Therefore, Project operation would not affect public transit service operation. Therefore, the proposed Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

Decommissioning

At the end of the life of the Project (approximately 35 years), the Project would be decommissioned and removed from the Project Site. The Project Site would then be converted to other uses in accordance with applicable land use regulations in effect at that time. All decommissioning and restoration activities would adhere to the requirements of the appropriate governing authorities and would be in accordance with all applicable federal, State, and County regulations. Impacts would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)? ☐ ☐ ☒ ☐

The County's Transportation Impact Analysis Guidelines includes thresholds for determining CEQA impacts for VMT pursuant to SB 743. The County's Transportation Impact Analysis Guidelines for Vehicle Miles Traveled identify that projects that generate fewer than 110 daily vehicle trips are presumed to have a less than significant impact absent substantial evidence to the contrary. As stated in Checklist Question 17.a, the Project would generate approximately 20 one-way trips per year. Therefore, as the Project would meet the screening criteria, it is presumed that the Project would have a less than significant VMT impact, and no further VMT analysis is required. Impacts would be less than significant.

The small project screening threshold addresses VMT from long-term operations; Project construction activities would be temporary and would not result in long-term or permanent change in VMT. Further, VMT primarily is a metric for assessing project-related GHG emissions impacts. The analysis related to GHG emissions associated with Project-related construction traffic is analyzed elsewhere in this IS/MND; see Greenhouse Gas Emissions, above. Overall, as the Project would provide a source of clean renewable energy to the grid and would reduce new GHG emissions that would have otherwise resulted from producing energy from a non-renewable source, the Project will have a beneficial impact on GHG emissions. Therefore, because the increase in VMT related to construction is temporary and localized, Project construction is not anticipated to result in long-term, permanent changes to the surrounding vehicle transportation system. Impacts from construction would be less than significant.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
c) Substantially increase hazards due to a road design feature (e.g., sharp curves) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

The Project would not substantially increase driving hazards, as the on-site access road would be used only by operations and maintenance staff and emergency responders in the event of an emergency. Alterations to the immediate access roads are not proposed such that a geometric design feature or incompatible use would increase hazards. Project Site access would be provided via a new driveway constructed at 230th Street W at the western portion of the Project Site and new on-site roads. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The proposed perimeter road would encircle the whole solar field and bisect the Project Site in a west-east orientation from 230th Street W to 227th Street W. The road would be wide enough to accommodate emergency vehicles and designed in compliance with County building and fire department standards. A minimum of 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS. Thus, the on-site access road would accommodate large trucks and vehicles, including fire trucks, per County regulations and would provide a clear line of sight for merging into the adjacent roads. Therefore, the Project would not significantly increase hazards due to design features or incompatible uses, and impacts would be less than significant.

D) Result in inadequate emergency access?	☐	☐	☒	☐

As mentioned in Checklist Question 9.f, regional access to the Project Site would be provided via SR 138, which is identified as a Primary Disaster Route (Freeway) in the County of Los Angeles. The proposed construction would be staged on-site and would have a temporary impact on circulation. At times, the Project may require the closure of one lane on 230th Street W closest to the Project Site for the construction of the proposed access road. However, the Project would not result in the complete closure of existing roadways that might have an effect on emergency response or evacuation plans in the vicinity of the Project Site. Accordingly, construction of the Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

The Project would not generate traffic volumes that would impede emergency access to the Project Site and would not result in a significant and permanent delay for emergency vehicles accessing 230th Street W. The Project would comply with emergency access requirements, per the California Fire Code, including turning radius and maneuverability of large emergency vehicles such as fire trucks and ambulances, provision of water tanks, and construction of internal access roads. Therefore, the Project would not result in inadequate emergency access, and impacts would be less than significant.

18. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or	☐	☐	☐	☒

As concluded in response to Checklist Question 5.a, the Project Site contains fallow land with no historical resources. There are no national, State, or locally-designated historic resources on the Project Site or in the immediate vicinity of the neighborhood setting. The examination of numerous historic maps was also negative for older historic cultural resources. Therefore, the Project would have no significant impact on causing a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Code 5020.1(k).

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Chapter 532 Statutes of 2014 (AB 52) requires that lead agencies evaluate a project's potential impact on "tribal cultural resources," which include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the CRHR or included in a local register of historical resources." AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a "tribal cultural resource." In compliance with PRC Section 21080.3.1(b), the City provided formal notification to California Native American tribal representatives identified by the California NAHC. Native American groups may have knowledge about the area's cultural resources and may have concerns about a development's adverse effects on tribal cultural resources, as defined in PRC Section 21074. The County has contacted the tribal representatives of the Tribes noted below. Correspondence to and from tribal representatives is included as **Appendix K**.

AB 52 Native American Groups Contacted:

- Fernañdeno Tataviam Band of Mission Indians (FTBMI), Sarah Brunzell
- The Gabrieleno Tongva Indians of California, Christina Conley
- Yuhaaviatam of San Manuel Nation (YSMN, also known as the San Manuel Band of Mission Indians), Lee Clauss

According to the CRIR, the NAHC response to the SLF search request stated that the results of the SLF search were negative. A list was provided by NAHC of Native American Tribes who may have knowledge of cultural resources in the area. Pursuant to AB 52, the County contacted the Tribes listed above on January 22, 2024. The County received a response from the FTBMI and the YSMN; both Tribes indicated that they had an interest in the Project at the time. To date, no other responses from the Native American community have been received as part of the AB 52 tribal consultation effort. The FTBMI and YSMN both requested preferred tribal mitigation measures be made part of the Project and be implemented during construction of the Project. These mitigation measures are discussed below and in Section 5: Cultural Resources.

Mitigation Measures

MM TCR-1 Tribal Monitor. Prior to the commencement of any ground disturbance activities, the Permittee shall retain a Tribal monitor(s) (Tribal Monitor) who is approved by the Fernandeno Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians) (the "Consulting Tribes") to provide tribal monitoring/consulting services alongside the Project Archaeologist in accordance with MM CUL-3. The Permittee shall submit a letter to the County of Los Angeles (County) to confirm the name and contact information of the Tribal Monitor(s) who is retained for the Project.

MM TCR-2 Tribal Cultural Resources Monitoring Plan. Prior to the commencement of any ground disturbance activities, the Project Archaeologist, in consultation with the Consulting Tribes shall prepare and submit a Tribal Cultural Resources Monitoring and Treatment Plan (Monitoring and Treatment Plan) to the County for review. The Monitoring and Treatment Plan shall be approved by the Consulting Tribes before those activities commence and the approved plan shall be submitted to the County. The Monitoring and Treatment Plan shall include methods for monitoring ground disturbance activities; procedures to follow when resources are discovered; protocol for identifying and evaluating tribal cultural resources; and shall incorporate measures to mitigate potential impacts to tribal cultural resources as provided in MM TCR-5, below.

MM TCR-3 Worker Environmental Awareness Program (WEAP) Training. Prior to the commencement of any ground disturbance activities, all project construction managers and workers shall attend a tribal cultural resources awareness training. The Project Archaeologist and the Tribal Monitor shall administer the training to inform construction managers and workers about the types of resources that could be encountered; the procedures to follow if tribal cultural resources are discovered; and the potential penalties for failing to adhere to applicable laws and regulations. The

procedures include work curtailment or redirection and immediate contact of the on-call archaeologist and, if appropriate, the FTBMI and SMBMI representative. Construction managers shall maintain a log to document all construction personnel who have completed the training. The log shall be provided to the County upon request within five business days. The training requirement should be stated on all construction plans. The Tribal representatives from the Consulting Tribes shall be allowed to attend and participate in the training. The WEAP required under this measure may be combined with the WEAP described in MM CUL-1.

MM TCR-4 Tribal Monitoring. Tribal monitor(s) shall be present onsite to monitor ground disturbing activities based on a schedule coordinated and agreed by the Consulting Tribes or established by the County. Tribal monitor(s) shall monitor ground disturbing activities when the Project Archaeologist is onsite in accordance with MM CUL-3.

If the Project's scheduled activities require the Tribal Monitor to leave the Project Site for a period of time and return, confirmation shall be submitted to the Tribes by the Permittee, in writing, upon completion of each set of scheduled activities and five (5) days' notice (if possible) shall be submitted to the Tribes by the Permittee, in writing, prior to the start of each set of scheduled activities. The Project Archaeologist and Tribal Monitor shall complete a log documenting all ground disturbance activities monitored, the locations where those activities occurred, the types of soils involved, and any tribal cultural resources encountered. Monitoring shall end when ground disturbance activities are completed, or earlier if a Tribal Monitor has determined that the site has a low potential for impacting tribal cultural resources. Within 30 days after monitoring has ended, the Project Archaeologist and Tribal Monitor shall submit the logs to the County and the Permittee shall submit in writing to the Consulting Tribes that all scheduled activities are complete

MM TCR-5 Discovery of Tribal Cultural Resources. If tribal cultural resources are encountered during construction, all ground disturbance activities within 100 feet of the find shall stop until the Tribal Monitor and the Project Archaeologist can evaluate the significance of the find and an area barrier shall be constructed. Construction activities may continue in other areas of the project site. The Project Archaeologist shall develop a research design including a plan to evaluate the resource for significance under CEQA criteria pursuant to Public Resources Code Section 21074. The archaeologist and the Consulting Tribes shall confer regarding the research design, evaluation efforts, and the resource's archaeological significance. If the discovery proves significant as determined by the Project Archaeologist and Consulting Tribes shall recommend appropriate measures subject to County's approval, to mitigate potential impacts to tribal cultural resources. Such measures may include but are not limited to resource avoidance, reburial, and preservation for educational purposes.

Should it occur that avoidance, preservation in place, or on-site reburial are not an option for treatment, the Consulting Tribes and Project Archaeologist shall develop a curation agreement to be approved by the County and agreed between landowner and

museum. The agreement may include legal and physical transfer of the collections and associated recordation, fees, and maintenance of the collection.

The Consulting Tribes shall coordinate with the Permittee to ensure that all measures approved by the County are implemented. Within 90 days after monitoring has ended, the Project Archaeologist shall prepare and submit a final monitoring report documenting all encountered tribal cultural resources, the significance of the resources, and the treatment of the resources to the tribes for review and comment. An approved final report shall be submitted to the California Native American Heritage Commission, local CHRIS Information Center, the County, and Consulting Tribes.

19. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Regarding stormwater, see Checklist Question 10.c.iii. Regarding electric power and natural gas, see Checklist Questions 6.a and 6.b.

Water

Water services on the Project Site are currently provided by one irrigation well and an irrigation pipeline system on the southeastern portion of the subject property. Water services to the Project Site are provided by the AVEKWA. According to the 2020 AVEKWA Urban Water Management Plan (UWMP), the region's water is provided from groundwater and imported water.[43] The Project would utilize water during construction for dust suppression and during operation for routine panel washing. Water would be trucked to the Project Site from an off-site source. Project construction and operation would not utilize new or expanded water facilities, and no construction or relocation of water facilities would cause a significant environmental effect. Impacts would be less than significant.

Wastewater

Temporary sanitary facilities would be placed on-site during construction. As the Project would be unmanned during operation, no wastewater facilities would be required. Therefore, the Project is not anticipated to generate additional wastewater. Project construction and operation would not utilize wastewater facilities, and no construction or relocation of wastewater facilities would cause a significant environmental effect. Impacts would be less than significant.

Telecommunications

Telecommunication equipment, including fiber optics, microwave, and meteorological data collection systems or supervisory control and data acquisition would be installed on the Project Site to connect the Project to remote monitoring locations and ultimately to the SCE substation. Project construction would be coordinated with any telecommunications service providers prior to installation. Therefore, installation of telecommunications infrastructure would not cause significant environmental effects. Impacts would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

As described in Checklist Question 10.b, the Project would obtain construction and operational water by purchasing it from a local purveyor. The Project Site is located within the Antelope Valley Groundwater Basin,

[43] Antelope Valley-East Kern Water Agency, 2020 Urban Water Management Plan.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

which is managed by the Antelope Valley Regional Water Management Group. The total storage capacity is estimated at 68 million to 70 million AF. Natural recharge is estimated at approximately 29,000 to 58,000 AF per year with an annual extraction of approximately 130,000 AF. The primary source of recharge to the groundwater basin is runoff from surrounding mountain ranges. Water demand during construction would be trucked in and is estimated at 13 AF. Water consumption for washing solar panels during Project operations and maintenance is anticipated to be approximately 0.2 AF of water per year. The water to be utilized during Project construction and O&M is minor compared to the water currently used on the Project Site for agricultural uses and would be sourced from the existing supplies of a local purveyor. Therefore, the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development, and impacts would be less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

As described in Checklist Question 19.a, the Project would not require wastewater facilities and would not generate additional wastewater. As such, the Project would not interfere with any wastewater treatment provider's service capacity. Impacts would be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

Project construction would result in the generation of various waste materials including soil, vegetation, and sanitation waste from portable toilets. Soil excavated for the Project Site would be balanced on-site. Sanitation waste (i.e., human-generated waste) would be disposed of according to sanitation waste management practices. The Project would be unmanned during Project operations, and minimal solid waste would be generated and sent to a publicly owned permitted landfill/disposal site. As the Project would generate minimal construction and operational waste, the Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

As previously mentioned in Checklist Question 19.d, Project construction would result in the generation of waste materials such as soil, vegetation, and sanitation waste. The Project would also be required to comply with AB 341 which requires a 75 percent diversion of construction materials. During operations, the Project would be unmanned and would generate minimal solid waste. Therefore, the Project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Impacts would be less than significant.

20. WILDFIRE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐
e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

As described in Checklist Question 9.g, the Project Site is located in an LRA and is not within a Very High FHSZ. Therefore, the Project Site is not located within an area prone to wildfire. Nevertheless, as described in Checklist Question 9.h, Project construction activities would be consistent with other such activities in the region and would not represent an increased fire risk. All construction vehicles and equipment would comply with applicable regulations to limit the potential for malfunction. Additionally, the proposed BESS would include redundant fire safety measures and would be designed and constructed according to applicable international, federal, State, and local standards. Furthermore, as described in Checklist Question 9.f, the Project would provide adequate emergency access during construction and operational activities and would not impede the use of the streets for emergencies or access for emergency response vehicles. Moreover, the Project Site is relatively flat with ruderal vegetation; therefore, the Project is not expected to expose people or structures to significant risks. As such, for the reasons substantiated above, impacts related to wildfires would be less than significant.

21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

As discussed throughout this Initial Study, the Project does not have the potential to degrade the environment's quality or result in significant environmental impacts that cannot be reduced to less than significant following compliance with the established regulatory framework (i.e., local, State, and federal regulations) and the recommended mitigation measures.

As concluded in Section 2: Air Quality, following compliance with **MM AQ-1**, which addresses a Valley Fever Management Plan, the Project would not expose sensitive receptors to substantial pollutant concentrations.

As concluded in Section 4: Biological Resources, following compliance with **MM BIO-1**, which addresses potential impacts to nesting birds; **MM BIO-2**, which addresses potential impacts to Swainson's Hawk; **MM BIO-3**, which addresses implementation of a WEAT; **MM BIO-4**, which requires proper containment of trash and waste items; **MM BIO-5**, which requires common and special-status wildlife awareness through visual checking and inspection; **MM BIO-6,** which addresses potential impacts to burrowing owls; **MM BIO-7**, which addresses potential impacts to desert kit fox; **MM BIO-8**, which addresses potential impacts to American badger; **MM BIO-9**, which addresses potential impacts to Crotch's bumble bee; **MM BIO-10**, which requires vegetation and revegetation measures; and **MM BIO-10**, which requires panel positioning to a close to vertical position, the Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

As concluded in Section 5: Cultural Resources, following compliance with **MM CUL-1, MM CUL-2** and **MM CUL-3**, which address potential impacts to archaeological resources, the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. Following compliance with **MM CUL-4**, which addresses potential impacts to paleontological resources, the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Following compliance with **MM CUL-5,** which addresses the inadvertent discovery of human remains, the Project would not directly or indirectly disturb any human remains.

As concluded in Section 18: Tribal Cultural Resources, following compliance with **MM TCR-1** through **MM TCR-5**, which address potential impacts to tribal cultural resources, the Project could not cause an adverse change in the significance of a tribal cultural resource.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)?	☐	☐	☒	☐

CEQA Guidelines Section 15065(a)(3) defines "cumulatively considerable as times when "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." The proposed Project would result in less than significant impacts with mitigation incorporated for the following environmental issues: air quality (Valley Fever only), biological resources, cultural resources, and tribal cultural resources. The impacts associated with these resource areas are localized and, as explained in detail above, project level impacts would be less than significant with mitigation incorporated. The Project site primarily is surrounded by fallow agricultural land, vacant land, and open space. Given the limited development in the area, there is no evidence of any cumulative impacts to these resource areas. Thus, cumulative impacts would be less than significant, and the Project's incremental contribution would not be cumulatively considerable.

All other Project impacts were determined either to have no impact or to be less than significant following compliance with the established regulatory framework, without the need for mitigation. Cumulatively, the proposed Project would not result in any significant impacts that would substantially combine with impacts of other current or probable future impacts. Therefore, the proposed Project would not result in any cumulatively considerable significant impacts.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

A significant impact may occur if the Project has the potential to result in significant environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly. All potential impacts of the Project have been identified in the respective sections of this Initial Study, and mitigation measures have been prescribed, where applicable, to reduce all potential impacts to less than significant levels. As such, upon implementation of mitigation measures identified and compliance with existing regulations, the Project would not have significant environmental effects, and the Project would not have substantial adverse effects on human beings, directly or indirectly. Therefore, impacts would be less than significant.

Initial Study – Mitigated Negative Declaration

230th Street Solar Project

Appendix A	Solar Glare and Glint Analysis Report
Appendix B	Air Quality Technical Memorandum
Appendix C-1	Biological Resources Assessment
Appendix C-2	Biological Resources Supplemental Memorandum
Appendix D	Cultural Resources Assessment
Appendix E	Energy Documentation
Appendix F	Geotechnical Engineering Investigation
Appendix G	GHG Emissions Tech Memorandum
Appendix H	Phase I Environmental Site Assessment
Appendix I	Drainage Report
Appendix J	Noise Technical Memo
Appendix K	Tribal Cultural Resources Documentation
Appendix L	Responses to Comments

Appendix A

Solar Glare and Glint Analysis Report

Kimley»Horn

Introduction

The RCPA 230th Street Project (Project) consists of approximately 31 acres in Los Angeles County, California. The site is situated between 230th Street West, and West Avenue D. The use of the data is up to the client, including the determination if any glare is allowed for this development and if further steps should mitigation be required for any glare identified. See Figure 1 for vicinity map with receptors and Project location.

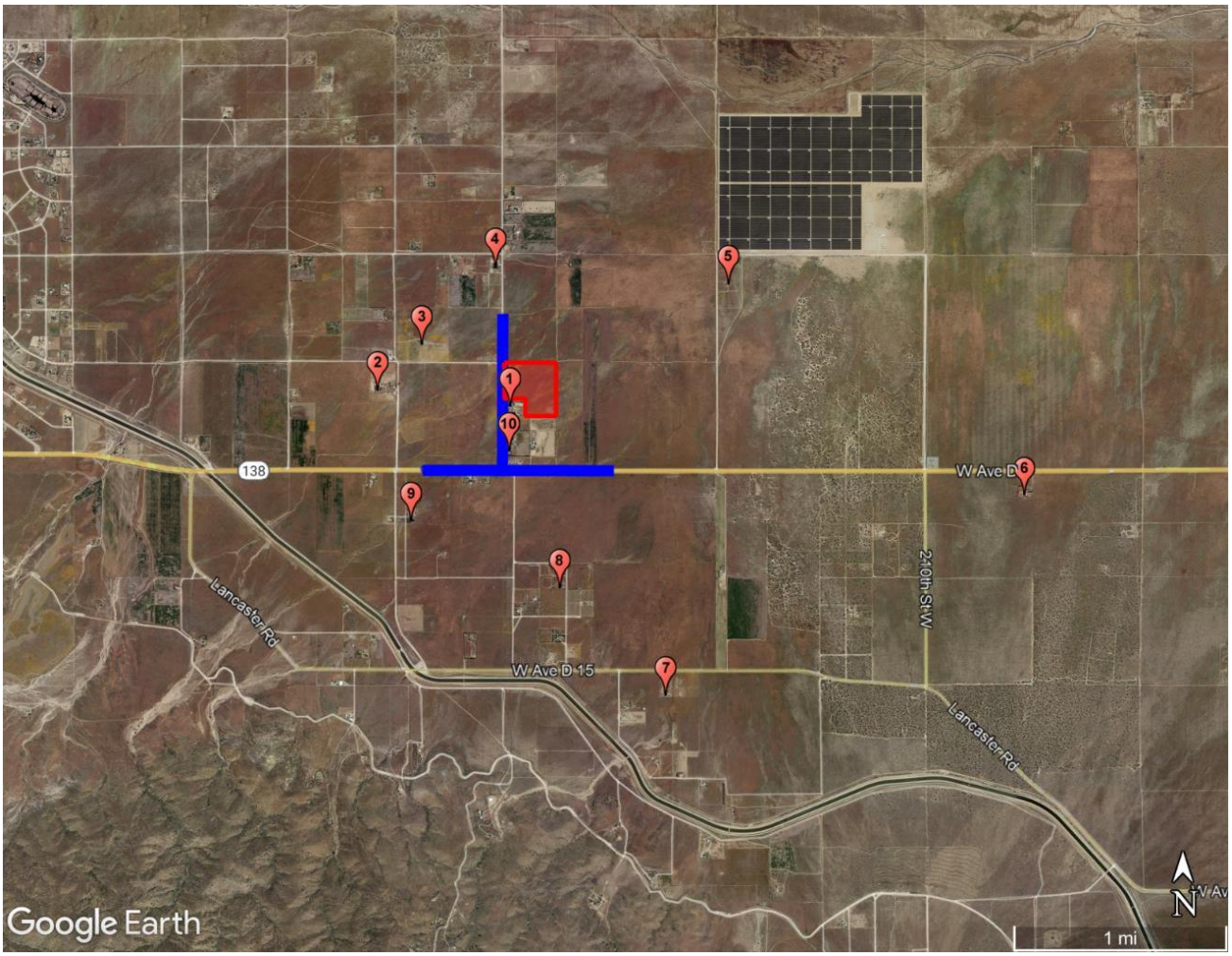


Figure 1: Project Location

Kimley Horn completed a glare analysis using the Solar Glare Hazard Analysis Tool (SGHAT) software, developed by Sandia Laboratories, now hosted by ForgeSolar. The SGHAT software is considered an industry-best practice and conservative model that effectively models the potential for glare at defined receptors from defined solar energy generating facilities.

Receptors & Methodology

Kimley Horn included as part of the analysis the 10 observation points near the Project, and 2 roadways along the project. The analysis is based on preliminary design geographic data from June 2023. The points used for observation points were modeled without restricting the field of view, to

ensure the results were conservative in nature. The receptors for roadways were limited to a 50 degree field of view to the left and right simulating the extent of periferal vision. The PV array was modeled with single axis tracking, anti reflective coating, and backtracking. The panel specifications, observation points, and roadway parameters can be found in Appendix A. All receptors analyzed are listed below including route receptors, and observation points, shown in Table 1.

Receptors	Location	Description
230th Street West	Roadway west of Project	Analyzed north to south along the Project
West Avenue D	Roadway south of Project	Analyzed west to east along the Project
10 Observation Points	Single family homes identified all around site	Analyzed near the Project

Table 1: Receptor Descriptions

Kimley Horn utilized the ForgeSolar Glare Gauge software tool to perform the glare analysis. If any receptor showed signs of glare, the tool calculated the retinal irradiance (brightness) and subtended angle (size divided by distance) of the glare source. By considering retinal irradiance and subtended angle, the analysis could predict ocular hazards ranging from low potential for temporary after-image to retinal burn. Based on the predicted retinal irradiance (intensity) and the subtended angle (size/distance) of the glare source to the receptor, the software categories glare into three levels shown by colors. The three glare levels are: "green" grade indicating a low potential for temporary after-image, "yellow" grade indicating the potential for temporary after-image, and "red" grade indicating the potential for retinal damage. For comparison, viewing the unfiltered sun is in the upper region of yellow glare near the red border, while solar panel glare tends to be on the border of green and yellow, approximately three orders of magnitude less than direct viewing of the sun. The three levels of glare were determined in (Ho, 2010). The different levels are displayed in Figure 2, with viewing unfiltered sun shown as a reference point.

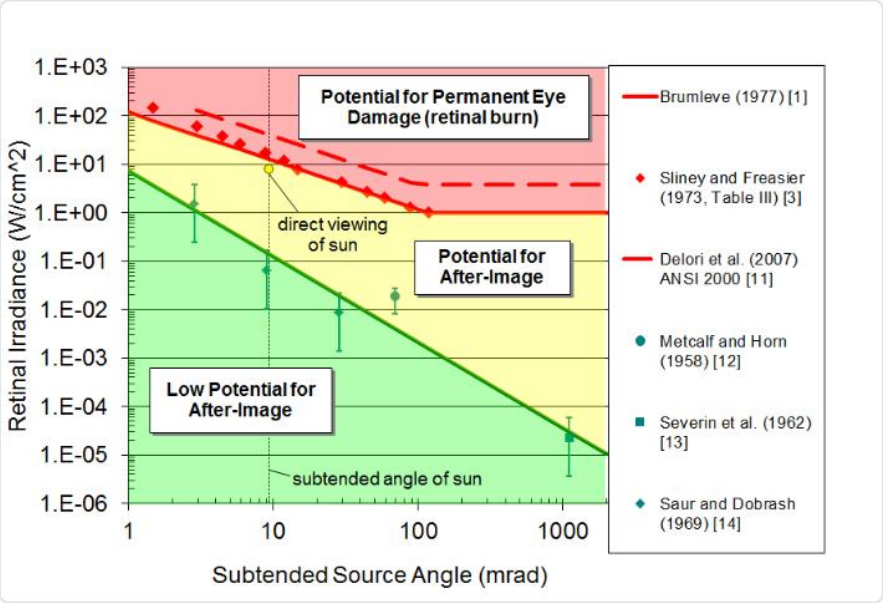


Figure 2: Glare Level Determined from "Ho, 2010"

Green and yellow glare is common from bodies of water, glass facades, and solar panel arrays. Red glare is extremely rare for PV arrays because solar panels do not concentrate glare. For scenarios involving mirrored collector systems which are common sources for red glare, different modeling and software is required. The difference between a curved surface that concentrates glare into a single point versus a flat collector (solar panel) is shown in Figure 3. The left image simulates light reflecting off a flat solar panel with no concentrating glare and the image on the right is of a curved mirrored panel reflecting towards a collector tower with all light concentrating together.

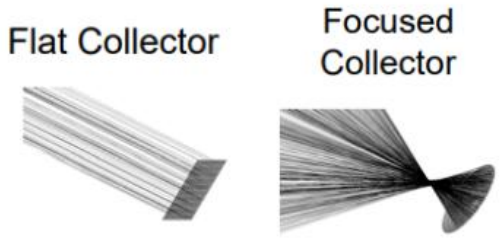


Figure 3: Flat Solar Panel and Curved Solar Panel reflection from "Ho, 2010"

It is worth noting that according to the Federal Aviation Administration's (FAA) 2021 Final Policy, in previous years, pilots have reported glare from bodies of water and glass façades, resembling the glare produced by solar panels. The software analyzes pilot's similarly to motorists; therefore, results are similar to those found when analyzing pilots near bodies of water or existing building facades. Mitigating glare remains the focus, but it is not as significant an issue as initially thought in 2013 when the initial policy was formulated (Federal Aviation Administration, 2021). The amount of light reflected by a surface or solar panel, increases as the sunlight's angle of incidence from the surface increases as illustrated in Figure 4. The red angle of incidence yields 50% light reflected while the blue angle of incidence yields only 2% of light reflected. Yellow glare is typically found shown by the red arrow with more reflection than the blue arrow, respresenting typical green glare.

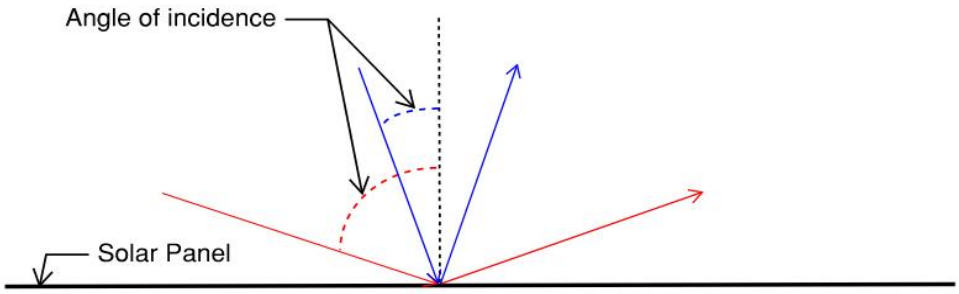


Figure 4: Reflected Light and Angle of Incidence (illustration only) on a panel

Modern solar PV modules reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles (Day & Mow, 2018). Additionally, glare from flat plate PV systems is comparable to that of smooth water and not expected to be hazardous (Riley & Olson, 2011).

Analysis Results

The model included the listed receptors in Table 1, and four existing tree lines identified near observation points around the site. The Project is anticipated to produce green glare for only four observation points (1, 2, 3, and 5). The tables below summarize the results for the observation points and roadways. Glare is reflected in hours per year with time of day in standard time assuming clear skies, no existing topography, or manmade objects to block line of sight. No proposed tree lines or manmade objects were modeled in to maintain a conservative model.

Observation Points

The observation points were modeled at a height of 6' to simulate an individual in a single-story building near the Project. The analysis looked at the glare impacts from the entire Project modeled as one array. The site has no proposed obstructions modeled adjacent to the Project. Four observation points identified any glare from the Project, see Table 2.

Observation Point 1 observed 2.5 hours of green glare from January to February and May to July and November to December for up to 3 minutes per day between 5-7:30AM from PV array 1.

Observation Point 2 observed 1.1 hours of green glare from March to April for up to 4 minutes per day between 5:15-6:15AM from PV array 1.

Observation Point 3 observed 2.7 hours of green glare from November to Janaury for up to 5 minutes per day between 6:30-7:30AM from PV array 1.

Observation Point 5 observed 0.5 hours of green glare from October to November for up to 4 minutes per day between 5-7:30AM from PV array 1.

Receptor	Hazard Level	Hours (per year)
OP 1	Green	2.5
	Yellow	0
	Red	0
OP 2	Green	2.2
	Yellow	0
	Red	0
OP 3	Green	2.7
	Yellow	0
	Red	0
OP 5	Green	0.5
	Yellow	0
	Red	0
OP 4, 6-10	Green	0
	Yellow	0
	Red	0

Table 2: Total Yearly Glare Hazard per Observation Point Receptors

Roadways

The roadways modeled had a driver height of 4', and a field of view of 50 degrees to the left and right. The analysis looked at the glare impacts from the entire Project which was modeled as one PV array. The results showed that no glare is expected to impact motorists throughout the entire year. No roadways identified any glare from the Project, see Table 3.

Receptor	Hazard Level	Hours (per year)
Roadway Receptors	Green	0
	Yellow	0
	Red	0

Table 3: Total Yearly Glare Hazard for Roadways

Conclusion

In Summary, there was green glare identified for four observation points the entire project site. The highest amount of glare during any singular occurrence is five minutes for observation point 3. This analysis does not consider buildings, or terrain between the observation points, roads, or the PV array. If there is not a direct line of site from the Project to the locations identified due to terrain or man-made objects, the glare might not actually impact motorists, or residences. The panel specifications should resemble those shown in Appendix A to aim for the same results shown in this report.

References

Day, M., & Mow, B. (2018). *Research and Analysis Demonstrate the Lack of Impacts of Glare from Photovoltaic Modules*. Nrel.gov. https://www.nrel.gov/state-local-tribal/blog/posts/research-and-analysis-demonstrate-the-lack-of-impacts-of-glare-from-photovoltaic-modules.html

Federal Aviation Administration. (2021, May 11). *Federal Register: Request Access*. Unblock.federalregister.gov. https://www.federalregister.gov/documents/2021/05/11/2021-09862/federal-aviation-administration-policy-review-of-solar-energy-system-projects-on-federally-obligated

Ho, C. K., Ghanbari, C. M., & Diver, R. B. (2010). Methodology to Assess Potential Glint and Glare Hazards From Concentrating Solar Power Plants: Analytical Models and Experimental Validation. *Journal of Solar Energy Engineering*. https://www.forgesolar.com/static/docs/ES2010-90053_glare_v2.pdf

Riley, E., & Olson, S. (2011). A Study of the Hazardous Glare Potential to Aviators from Utility-Scale Flat-Plate Photovoltaic Systems. *ISRN Renewable Energy*, *2011*, 1–6. https://www.hindawi.com/journals/isrn/2011/651857/

APPENDIX A

ForgeSolar Glare Analysis Report

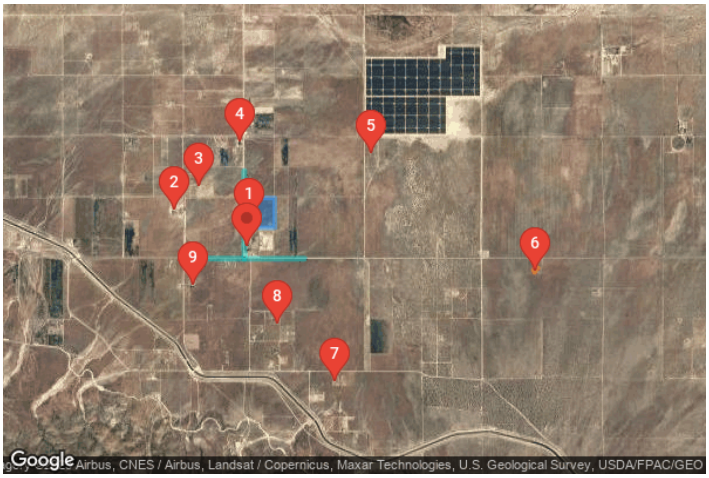
FORGESOLAR GLARE ANALYSIS

Project: **230th Street**
Proposed solar site located in rural Lancaster, California

Site configuration: **Existing Conditions**

Created 17 Oct, 2023
Updated 17 Oct, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 1 MW to 5 MW
Site ID 103250.17980

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2



Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	415	6.9	0	0.0	-

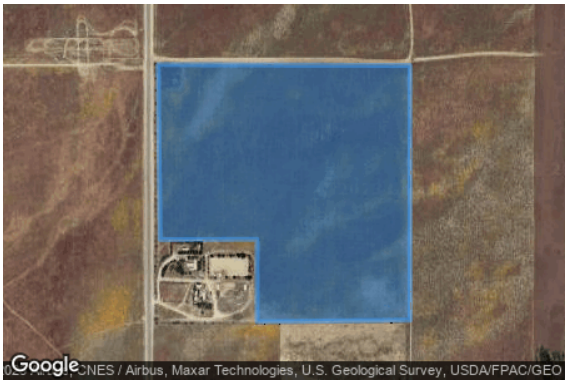
Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
230th St West	0	0.0	0	0.0
W Avenue D	0	0.0	0	0.0
OP 1	152	2.5	0	0.0
OP 2	67	1.1	0	0.0
OP 3	164	2.7	0	0.0
OP 4	0	0.0	0	0.0
OP 5	32	0.5	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.35
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.779418	-118.536723	2827.26	8.00	2835.26
2	34.781878	-118.536759	2820.66	8.00	2828.66
3	34.781865	-118.532430	2809.55	8.00	2817.55
4	34.778283	-118.532429	2820.89	8.00	2828.89
5	34.778261	-118.535057	2828.73	8.00	2836.73
6	34.779420	-118.535057	2822.46	8.00	2830.46

Route Receptors

Name: 230th St West
Path type: Two-way
Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.785093	-118.536897	2811.63	4.00	2815.63
2	34.774574	-118.536906	2848.13	4.00	2852.13

Name: W Avenue D
Path type: Two-way
Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.774599	-118.543241	2866.23	4.00	2870.23
2	34.774564	-118.534604	2841.56	4.00	2845.56
3	34.774577	-118.528108	2823.56	4.00	2827.56

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	34.779051	-118.536208	2829.69	6.00
OP 2	2	34.780442	-118.547050	2866.20	6.00
OP 3	3	34.783203	-118.543568	2839.30	6.00
OP 4	4	34.788586	-118.537477	2808.65	6.00
OP 5	5	34.787201	-118.518359	2770.29	6.00
OP 6	6	34.773066	-118.494190	2819.08	6.00
OP 7	7	34.759806	-118.523561	2895.23	6.00
OP 8	8	34.766711	-118.531927	2890.21	6.00
OP 9	9	34.771336	-118.544341	2896.08	6.00
OP 10	10	34.776060	-118.536404	2845.86	6.00

Obstruction Components

Name: OP 1 East Trees
Top height: 10.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.779108	-118.536038	2828.23
2	34.778998	-118.536036	2828.90

Name: OP 1 North Trees
Top height: 10.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.779220	-118.536379	2827.55
2	34.779216	-118.536007	2828.74

Name: OP 1 North Trees Closer
Top height: 10.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.779354	-118.536510	2827.92
2	34.779358	-118.535995	2828.38
3	34.779264	-118.535995	2828.92

Name: OP 6 Trees
Top height: 6.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	34.773005	-118.494366	2819.62
2	34.773133	-118.494371	2820.19
3	34.773201	-118.494457	2820.62
4	34.773276	-118.494457	2820.71
5	34.773437	-118.494331	2820.07
6	34.773426	-118.493985	2819.20

Glare Analysis Results

Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	415	6.9	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
230th St West	0	0.0	0	0.0
W Avenue D	0	0.0	0	0.0
OP 1	152	2.5	0	0.0
OP 2	67	1.1	0	0.0
OP 3	164	2.7	0	0.0
OP 4	0	0.0	0	0.0
OP 5	32	0.5	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0

PV: PV array 1 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
230th St West	0	0.0	0	0.0
W Avenue D	0	0.0	0	0.0
OP 1	152	2.5	0	0.0
OP 2	67	1.1	0	0.0
OP 3	164	2.7	0	0.0
OP 5	32	0.5	0	0.0
OP 4	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0

PV array 1 and Route: 230th St West

No glare found

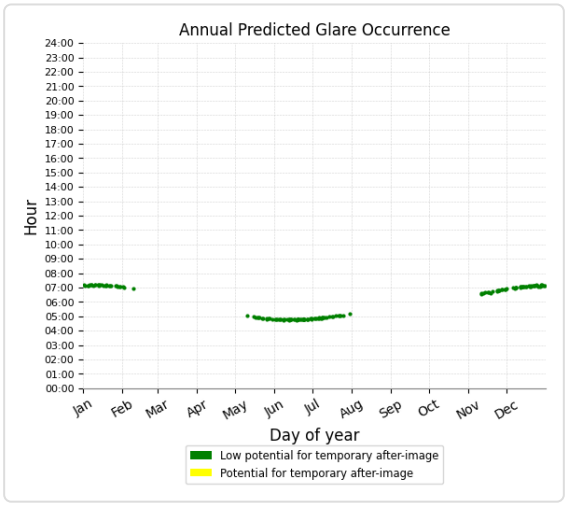
PV array 1 and Route: W Avenue D

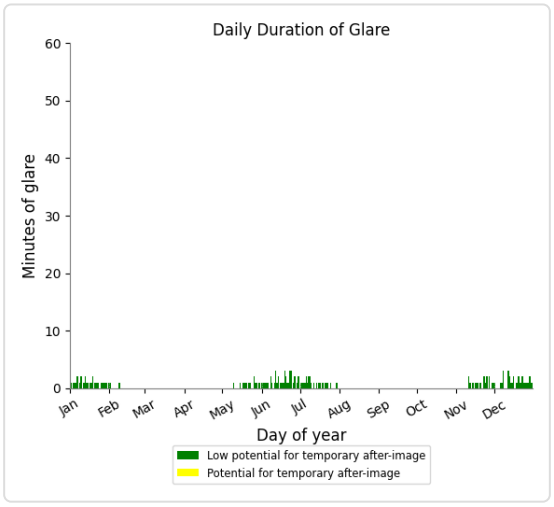
No glare found

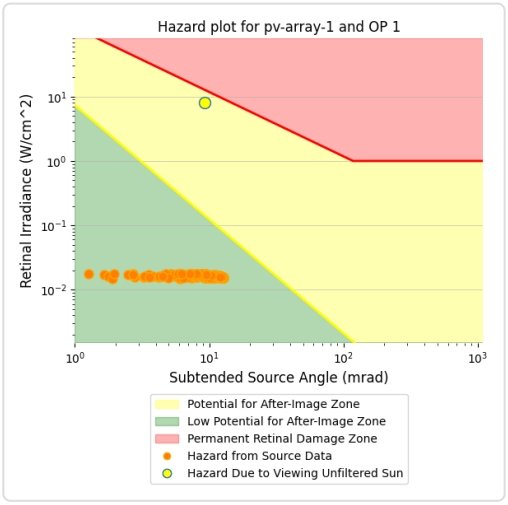
PV array 1 and OP 1

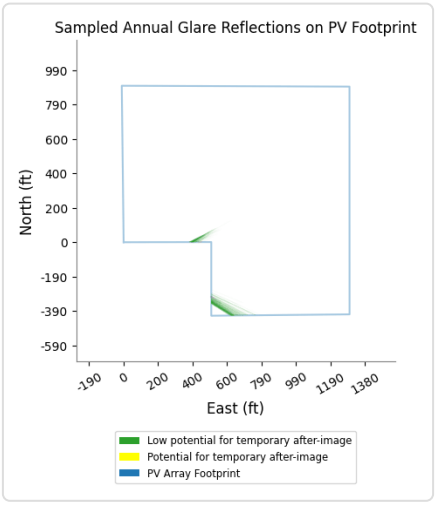
Yellow glare: none

Green glare: 152 min.





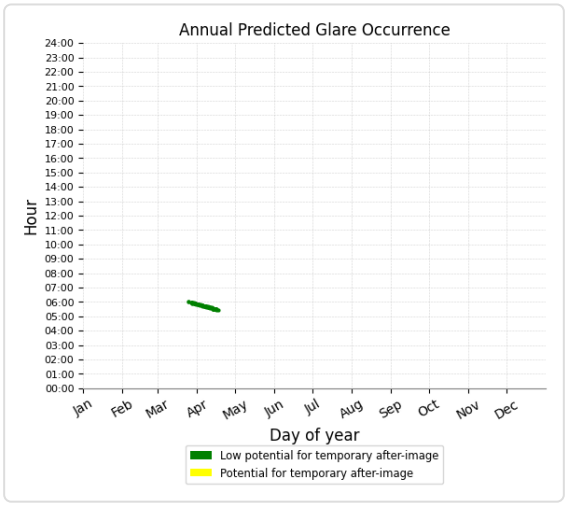


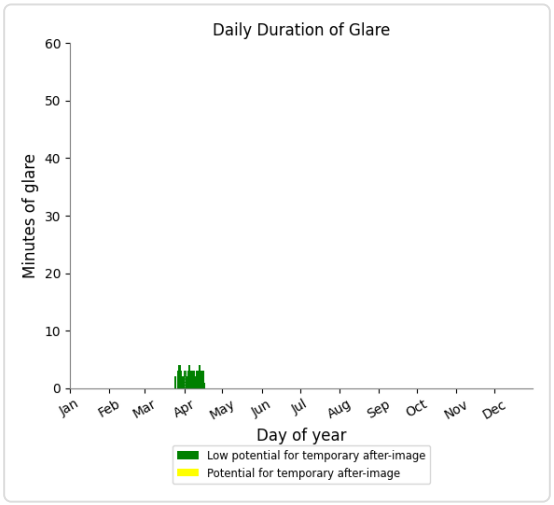


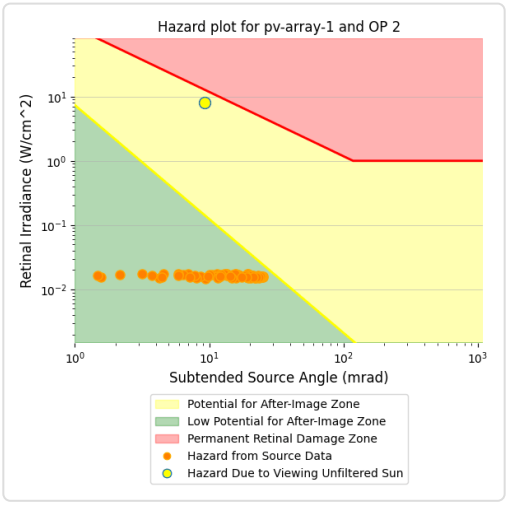
PV array 1 and OP 2

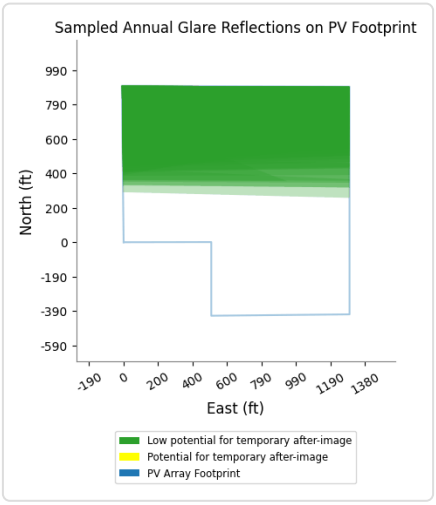
Yellow glare: none

Green glare: 67 min.





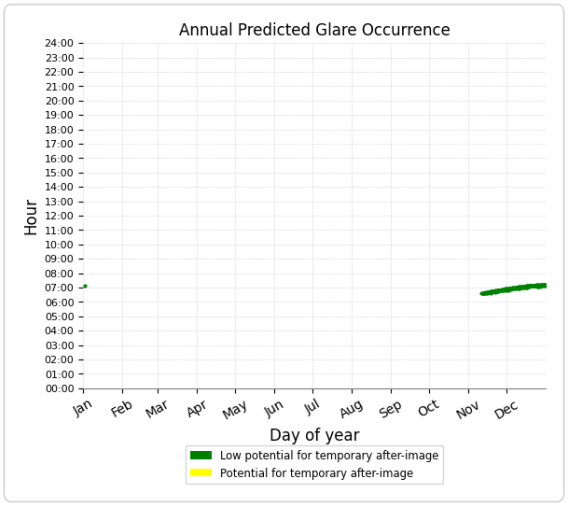


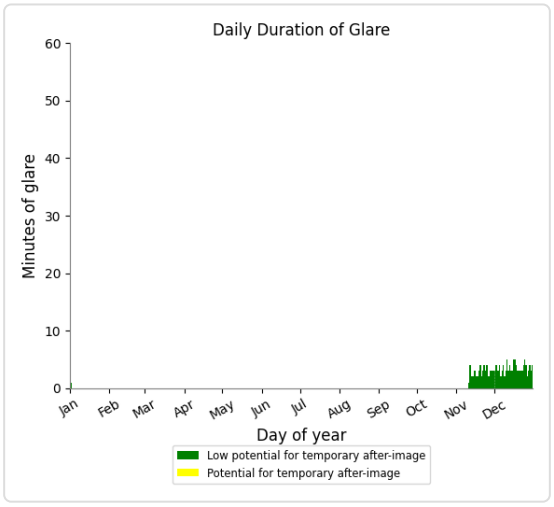


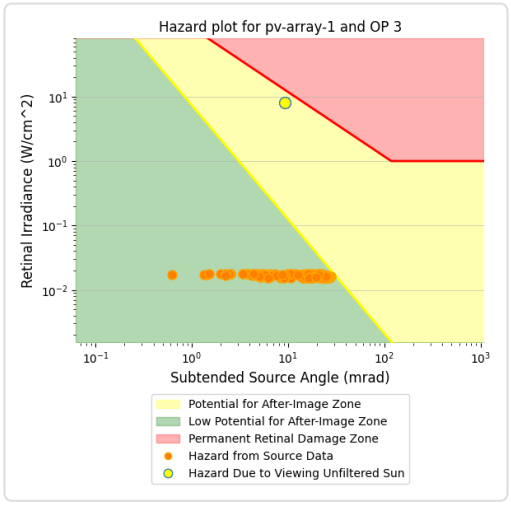
PV array 1 and OP 3

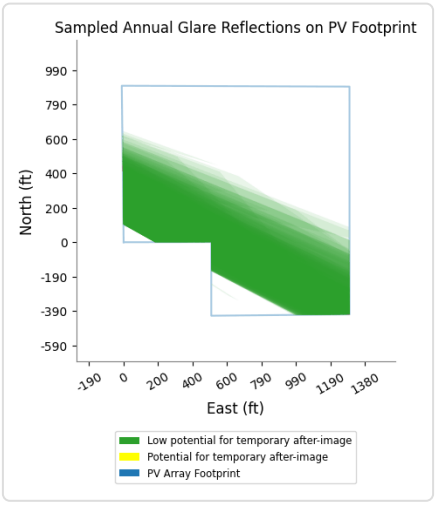
Yellow glare: none

Green glare: 164 min.



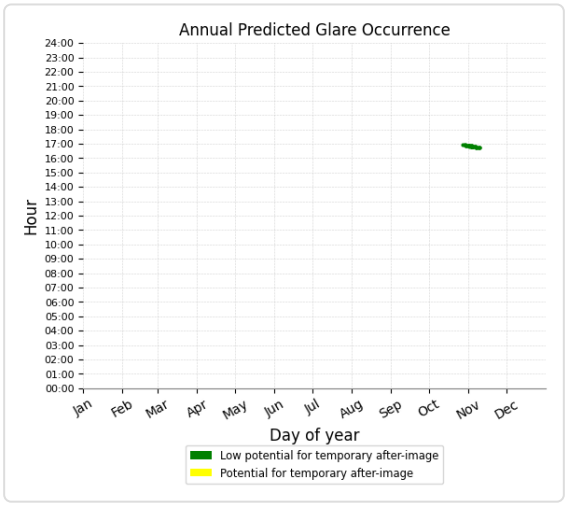


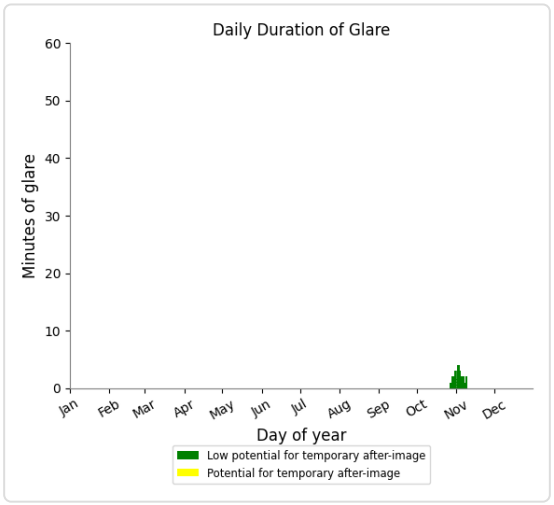


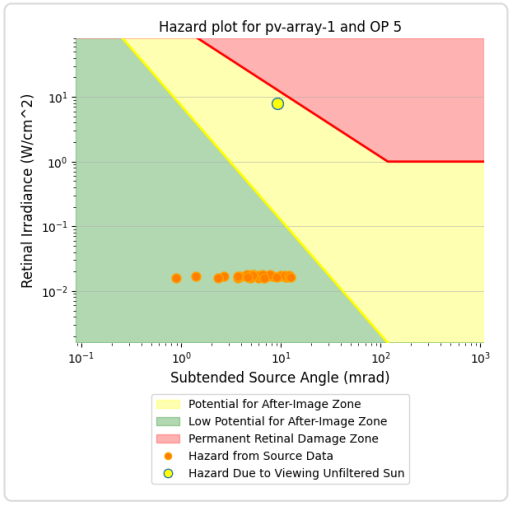


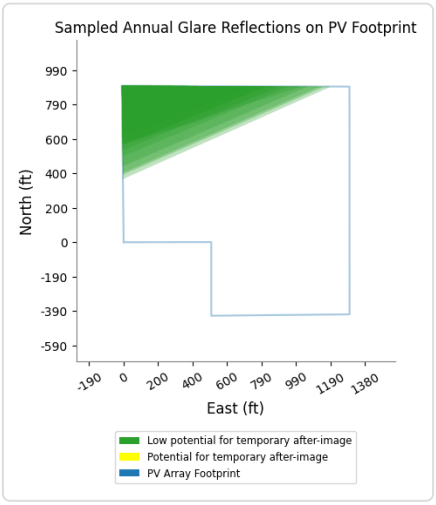
PV array 1 and OP 5

Yellow glare: none
Green glare: 32 min.









PV array 1 and OP 4

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

© Sims Industries d/b/a ForgeSolar, All Rights Reserved.

Appendix B

Air Quality Analysis Technical Memorandum

Kimley»Horn

TECHNICAL MEMORANDUM

To:	RPCA Solar 12, LLC
From:	Olivia Chan and Mayra Garcia, Kimley-Horn and Associates, Inc.
Date:	April 11, 2025
Subject:	230th Street Solar Project – Air Quality Analysis

PURPOSE

The purpose of this memorandum is to assess potential impacts due to air pollutant emissions associated with construction and operation of the 230th Street Solar Project (Project) proposed to be located in unincorporated Los Angeles County, California.

PROJECT LOCATION

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W in Lancaster (see **Figure 1: Regional Vicinity Map**). The Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west (see **Figure 2: Local Vicinity Map**). Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25 miles to the south. Local access to the Project Site would be accessed via West A C 8 and 230th Street W.

PROJECT DESCRIPTION

RPCA Solar 12, LLC (Applicant) proposes to construct and operate a single-axis tracker ground-mounted photovoltaic (PV) community solar and battery energy storage system (BESS) with up to approximately 4.99 megawatts of alternating current (MWac) in capacity. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance.

The BESS would store electrical energy produced by the Project during the day and flexibly dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of four battery banks with energy storage capacity located in the southwest corner of the PV array. Each battery bank would be approximately the size of a typical shipping container. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection, and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

Site access would be provided via a new driveway constructed from 230th Street W. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The access roads would encircle the whole array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site Boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. As little as 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.

The Project proposes a 10-foot landscape buffer between the fence and the access road on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8. The Project would be enclosed in a six foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24-hour access for emergency responders.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as January 2026.[1] Project construction activities generally fall into six main categories: (1) demolition; (2) site preparation (vegetation clearing); (3) grading; (4) paving; (5) system installation; and (6) testing, commissioning, and cleanup.[2] Construction personnel will be divided between civil and electrical services. During Project construction, non-potable water would be required for common construction-related purposes, including but not limited dust

[1] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.

[2] Note that the modeling does not account for testing, commissioning, and cleanup as heavy-duty construction equipment would not be utilized.

suppression, soil compaction, and grading. No new water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction.

Operations

The Project would operate year-round. The Project Site would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

During Project O&M, it is anticipated that minimal water would be required for solar panel washing. Water consumption for washing panels is expected to be approximately 0.2 acre-feet (AF) of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge (inundation of water), and no chemicals or other materials are used. It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department standards. The water tank shall have a Los Angeles County Fire Department supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning complies with all applicable local, State, and federal requirements and best management practices (BMPs). The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

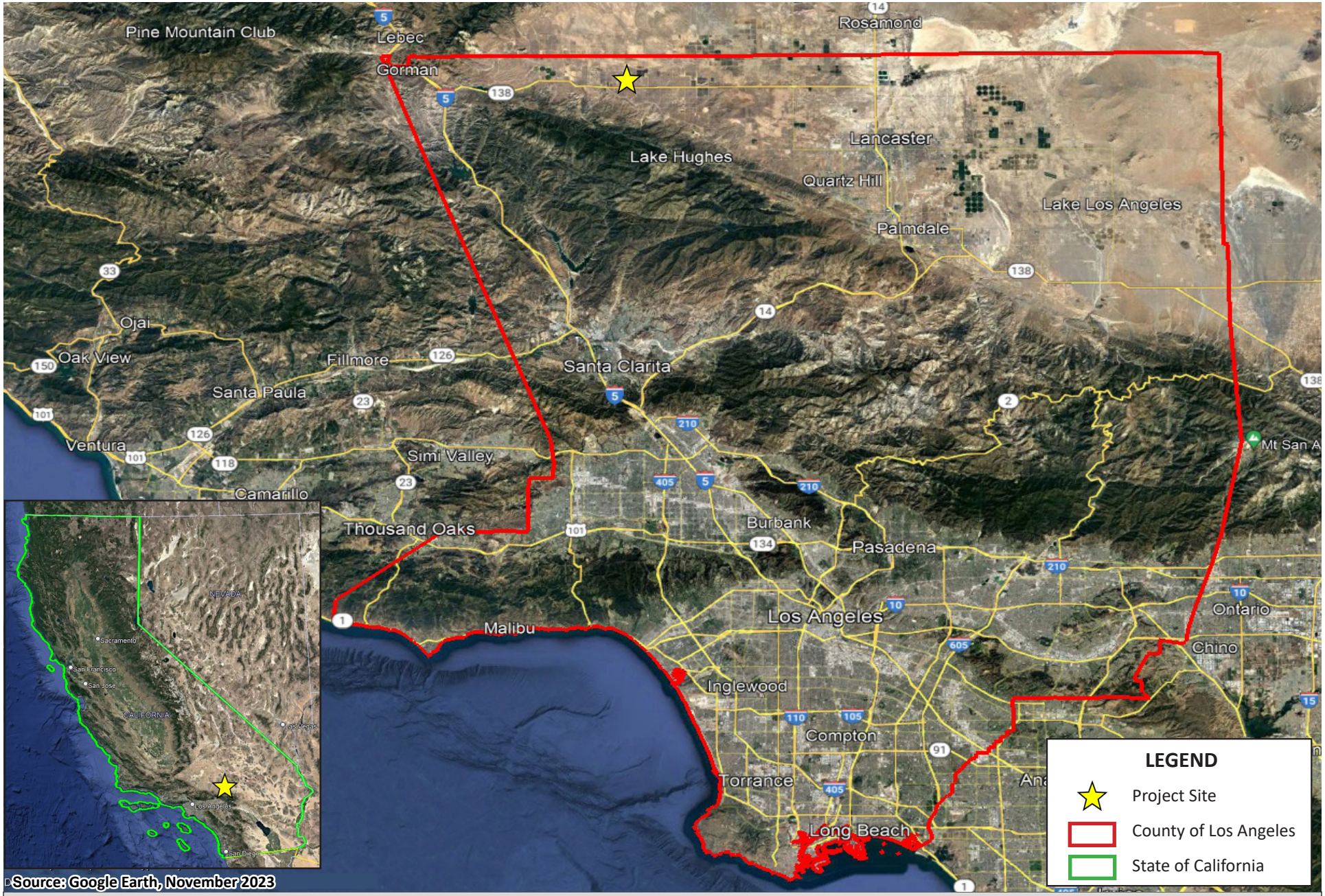


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

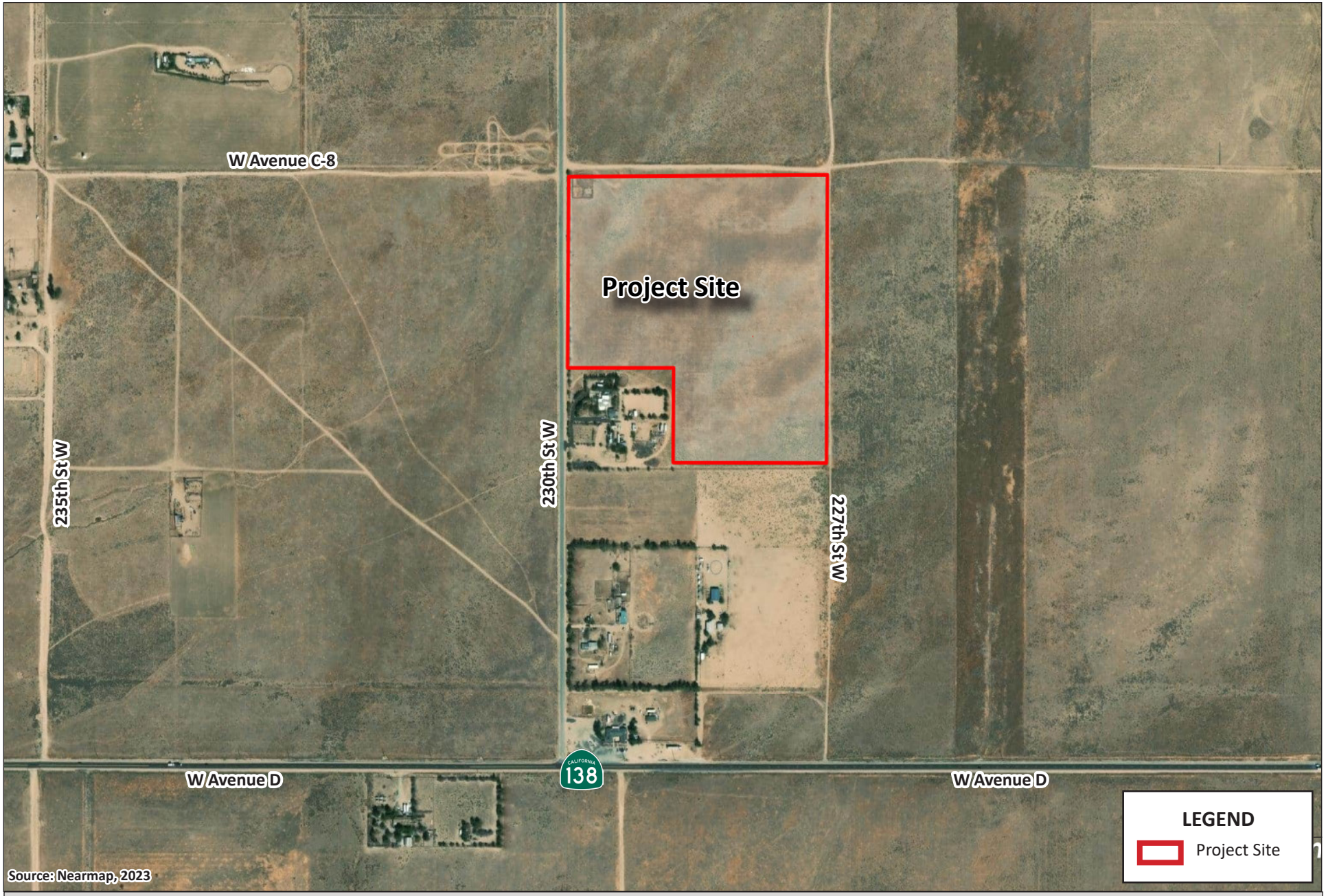


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

ENVIRONMENTAL SETTING

Regional Topography

The State of California is divided geographically into 15 air basins, generally along geographic or topographic boundaries. The Project Site is located in the Mojave Desert Air Basin (Basin). The Basin includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The Antelope Valley AQMD (AVAQMD) has jurisdiction over stationary sources of air pollution located within the northern desert portion of Los Angeles County, which includes the Project Site.

The Basin is bound in the northwest by the Tehachapi Mountains, in the southwest by the San Gabriel Mountains, and in the south by the San Bernardino Mountains. To the north, the Basin is defined by the San Bernardino-Inyo County boundary, to the northeast the California-Nevada state line, and to the east by the Colorado River. The San Gabriel and San Bernardino Mountains are high and rugged, with the highest peaks being 10,066 feet above sea level (Mt. San Antonio) and 11,503 feet (Mt. San Gorgonio), respectively. The Basin generally lies at 3,000 to 6,000 feet elevation.

The Antelope Valley is situated in a transitional zone between the Great Basin Desert to the north and the Sonoran Desert to the south (mainly between 34°N and 38°N latitudes). The area is primarily a rain-shadow desert, meaning it experiences little rainfall because it is sheltered from prevailing rain-bearing winds (i.e., off the Pacific Ocean) by a range of mountains.

Meteorology and Climate

Factors such as wind, sunlight, temperature, humidity, and rainfall, affect the accumulation and/or dispersion of air pollutants throughout the Basin. Local meteorological conditions are greatly affected by the topography of the region.

Prevailing winds in the Basin are out of the west and southwest. These prevailing winds are due to the proximity of the Basin to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north. Air masses pushed onshore in Southern California by differential heating are channeled through the mountain passes. Although a portion of the prevailing winds come from the Los Angeles Basin via the canyons, the vast majority of the winds are a result of the orographic effect and the desert heat low-pressure systems. The “orographic effect” is the phenomenon whereby the air is forced over the mountain range and loses moisture as it rises. When it descends, it also compresses and heats up. The speed of the wind is aided by the “desert heat low”, which routinely form over the eastern Mojave Desert area. During the summer a Pacific Subtropical High Cell, that sits off the coast generally influences the Basin, inhibiting cloud formation and encouraging daytime solar heating. The Basin is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The Basin averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation). The Basin is classified as a dry-hot desert

climate, with portions classified as dry-very hot desert, to indicate at least three months have maximum average temperature over 100.4° F.[3]

Criteria Air Pollutants

Carbon Monoxide (CO). Carbon monoxide is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhaust accounts for most CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. Concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions. The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Ozone (O_3). Ozone is a colorless gas that is formed in the atmosphere when volatile organic compounds (VOCs), sometimes referred to as reactive organic gases (ROGs), and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. Ozone is not a primary pollutant; it is a secondary pollutant formed by complex interactions of the two precursor pollutants directly emitted into the atmosphere. Automobile exhaust and industrial sources are the primary sources of VOCs and NO_X. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. Ozone can damage the tissues of the respiratory tract, causing inflammation and irritation, and result in symptoms such as coughing, chest tightness, and worsening of asthma symptoms.

Nitrogen Dioxide (NO_2). Most NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to ozone formation. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million (ppm) by volume.

Particulate Matter (PM2.5 and PM10). Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM2.5 and PM10 represent fractions of particulate matter. Fine particulate matter, or

[3] Mojave Desert Air Quality Management District, *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, February 2020.

PM2.5, is roughly 1/28 the diameter of a human hair. PM2.5 results from fuel combustion (e.g., motor vehicles, power generation, and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_X), NO_X, and VOC. Inhalable or coarse particulate matter, or PM10, is about 1/7 the thickness of a human hair. Major sources of PM10 include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

PM2.5 and PM10 pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM2.5 and PM10 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates, can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases, such as chlorides or ammonium, into the lungs, also causing injury. Whereas PM10 tends to collect in the upper portion of the respiratory system, PM2.5 is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Sulfur Dioxide (SO_2). Sulfur dioxide is a colorless, pungent gas formed primarily by the combustion of sulfur containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, sulfur dioxide concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and corrode iron and steel.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) are often used interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC are often used interchangeably.

Local Ambient Air Quality

Ambient air quality for the Project Site can be determined from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends in the region are documented by measurements made by the AVAQMD, the air pollution regulatory agency in the Basin that maintains air quality monitoring stations which process ambient air quality measurements. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentration. The U.S. Environmental Protection Agency (USEPA) requires monitoring sites be capable of informing air pollution control officers about peak air pollution levels, typical levels in populated areas, air pollution transported into and out of a city or region, and air pollution levels near specific sources. Monitors must be designated with an appropriate site type so that the data collected can be used to support a specific federal monitoring objective.[4]

Air Quality Impacts

Antelope Valley Air Quality Management District Thresholds

AVAQMD is the regulatory agency responsible for improving air quality for large areas for the northern desert portion of Los Angeles County. The Project Site is located within the Mojave Desert Air Basin, which is a distinct geographic subarea within the AVAQMD's jurisdiction.

The AVAQMD monitors air quality at one monitoring station throughout the Basin.[5] Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentration. The closest air monitoring station to the Project Site that monitors CO, NO_2, O_3, PM2.5, and PM10 is the Lancaster Monitoring Station, located approximately 32 miles northwest of the Project Site at 43301 Division Street.[6] This data is designated as representative at the neighborhood scale (0.5 to 4.0 kilometers). The unincorporated Los Angeles County land surrounding the Project Site is developed at a far lower intensity than land uses within Lancaster, meaning that the data from the Lancaster Monitoring Stations are likely substantially over predicting ambient levels at the Project Site. Nonetheless, it is the most applicable data available for all pollutants.

Local Air Quality

The air quality data from 2020 to 2022 monitored at the Lancaster 43301 Division Street. –Monitoring Stations is presented in **Table 1: Summary of Air Quality Data**. This table lists the monitored maximum concentrations and number of exceedances of State/Federal air quality standards for each year.

---

4 California Air Resources Board, *Annual Network Plan, Covering Monitoring Operations in 25 California Air Districts*, https://avaqmd.ca.gov/files/d71e27d0f/2021+Annual+Network+Plan.pdf, accessed December 19, 2023.

5 Antelope Valley Air Quality Management District (AVAQMD), Ambient Air Monitoring, https://avaqmd.ca.gov/ambient-air-monitoring, accessed December 19, 2023.

6 Antelope Valley Air Quality Desert (AVAQMD), Sites Operated by the Antelope Valley AQMD https://ww3.arb.ca.gov/qaweb/districtselect.php?a_airs_code=071, accessed December 19, 2023.

The attainment status for various pollutants in the Basin are listed in **Table 2: Federal and State Ambient Air Quality Attainment Status**. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Areas for which there is insufficient data available are designated unclassified. As shown in **Table 2**, the Project Site is a Federal nonattainment area for O_3 and a state nonattainment area for O_3 and PM10. The Project Site is classified as attainment or unclassified for lead, visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Table 1: Summary of Air Quality Data

Pollutant	California Standard	Federal Primary Standard	Year	Maximum Concentration[1]	Days (Samples) State/Federal Std. Exceeded
Ozone (O_3) (8-hour)[2]	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2020 2021 2022	0.083 ppm 0.079ppm 0.082ppm	8/8 3 / 4 36/ 33
Ozone (O_3) (1-hour)[2]	0.09 ppm for 1 hour	NA[6]	2020 2021 2022	0.099 ppm 0.086ppm 0.098ppm	4/0 0 / 0 3/ 0
Carbon Monoxide (CO) (1-hour)[2]	20 ppm for 1 hour	35 ppm for 1 hour	2020 2021 2022	1.617ppm 1.416 ppm 1.380 ppm	0 / 0 0 / 0 0 / 0
Nitrogen Dioxide (NO_2)[2]	0.180 ppm for 1 hour	0.100 ppm for 1 hour	2020 2021 2022	0.052 ppm 0.046ppm 0.044 ppm	0 / 0 0 / 0 0 / 0
Fine Particulate Matter (PM2.5)[2]	No Separate Standard	35 µg/m^3 for 24 hours	2020 2021 2022	74.7mg/m^3 35.7mg/m^3 15.1 mg/m^3	9/9 1/1 0/0
Particulate Matter (PM10)[2]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours[7]	2020 2021 2022	192.3 mg/m^3 411.3mg/m^3 76.3 mg/m^3	40/1 20/1 9/0

ppm = parts per million; PM10 = particulate matter 10 microns in diameter or less; mg/m^3 = micrograms per cubic meter; PM2.5 = particulate matter 2.5 microns in diameter or less

Notes:
1. Maximum concentration is measured over the same period as the California Standards.
2. Data collected from the Lancaster Monitoring Station located at 43301 Division Street.
3. The Federal standard for 1-hour ozone was revoked in June 2005.
4. The Federal standard for average PM10 was revoked in December 2006.

Sources:
For CO and NO_2 see California Air Resources Board, *AQMIS2: Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed December 19, 2023.
For all other pollutants, see California Air Resources Board, *ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed December 19, 2023.

Table 2: Federal and State Ambient Air Quality Attainment Status		
Pollutant	**Federal**	**State**
Ozone (O_3)	Non-attainment[1]	Non-attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment
Coarse Particulate Matter (PM10)	Unclassified/Attainment	Nonattainment
Fine Particulate Matter (PM2.5)	Unclassified/Attainment	Unclassified
Source: Antelope Valley Air Quality Management District, *Attainment Status,* https://avaqmd.ca.gov/files/e0986ab83/AVAQMD+2017+Attainment+Status+Table.pdf, accessed December 19, 2023.		

REGULATORY FRAMEWORK

Federal

Clean Air Act

The federal Clean Air Act (CAA), which was initially established by the U.S. Congress in 1970 and substantially revised in 1977 and 1990, can be found in Title 42, Chapter 85 of the United States Code. An important aspect of the CAA is its requirement for the USEPA to establish National Ambient Air Quality Standards (NAAQS). There are NAAQS in place for seven "criteria" pollutants: CO, lead, NO_2, O_3, particle matter (PM10 and PM2.5), and SO_2. Standards are classified as primary and secondary. Primary standards are designed to protect public health, including sensitive individuals, such as children and the elderly, whereas secondary standards are designed to protect public welfare, such as visibility and crop or material damage. The USEPA sets the NAAQS based on a process that involves science policy workshops, a risk/exposure assessment (REA) that draws on the information and conclusions of the science policy workshops to development quantitative characterizations of exposures and associated risks to human health or the environment, and a policy assessment by USEPA staff that bridges the gap between agency scientific assessments and the judgments required of the USEPA administrator, who then takes the proposed standards through the federal rulemaking process.[7] The NAAQS are set to be protective of human health.

The CAA requires the USEPA to routinely review and update the NAAQS in accordance with the latest available scientific evidence. For example, the USEPA revoked the annual PM10 standard in 2006 due to a lack of evidence linking health problems to long-term exposure to PM10 emissions. The 1-hour standard for O_3 was revoked in 2005 in favor of a new 8-hour standard that is intended to better protect public health.

[7] United States Environmental Protection Agency (EPA), *Process of Reviewing the National Ambient Air Quality Standards*, https://www.epa.gov/criteria-air-pollutants/process-reviewing-national-ambient-air-quality-standards, accessed December 19, 2023.

CAA Section 182(e)(5) allows the USEPA administrator to approve provisions of an attainment strategy in an extreme area that anticipates development of new control techniques or improvement of existing control technologies if the state has submitted enforceable commitments to develop and adopt contingency measures to be implemented if the anticipated technologies do not achieve planned reductions.

Nonattainment areas are required to develop their air quality management plans to include specific emission reduction strategies to meet interim milestones in implementing emission controls and improving air quality. The USEPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the act. If a state fails to correct these planning deficiencies within two years of federal notification, the USEPA is required to develop a Federal Implementation Plan for the identified nonattainment area or areas.

State

California Clean Air Act

The California Clean Air Act requires all air pollution control districts in the state to aim to achieve and maintain state ambient air quality standards for O_3, CO, and NO_2 by the earliest practical date and to develop plans and regulations specifying how the districts will meet this goal. There are no planning requirements for the state PM_{10} standard.

CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting state requirements of the CAA, administrating the California Clean Air Act, and establishing the California Ambient Air Quality Standards (CAAQS). The California Clean Air Act, amended in 1992, requires all air districts in the state to endeavor to achieve and maintain the CAAQS. California law does not require that CAAQS be met by specified dates as is the case with NAAQS. Rather, it requires incremental progress toward attainment.[8] California law continues to mandate CAAQS, although attainment of the NAAQS has precedence over attainment of the CAAQS due to federal penalties for failure to meet federal attainment deadlines.

The CAAQS are generally stricter than national standards for the same pollutants, but there is no penalty for nonattainment. Similar to the federal process, the standards for the CAAQS are adopted after review by CARB staff of the scientific literature produced by agencies such as the Office of Environmental Health Hazard Assessment (OEHHA), the Air Quality Advisory Committee, which is comprised of experts in health sciences, exposure assessment, monitoring methods, and atmospheric sciences appointed by the Office of the President of the University of California, and public review and comment. [9] The CAAQS are set at levels determined to be protective of human health.

---

8 California Air Resources Board, *California Ambient Air Quality Standards*, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards, accessed December 19, 2023.

9 California Air Resources Board, *California Ambient Air Quality Standards*, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards, accessed December 19, 2023.

State Implementation Plans

An important component of the AVAQMD's air quality planning strategy is contained in the State Implementation Plan (SIP) for the State of California. The CAA requires all states to submit a SIP to the USEPA. This statewide SIP is often referred to as an "infrastructure" SIP. Infrastructure SIPs are administrative in nature and describe the authorities, resources, and programs a state has in place to implement, maintain, and enforce the federal standards. It does not contain any proposals for emission control measures.

In addition to infrastructure SIPs, the Clean Air Act requires submissions of SIPs for areas that are out of compliance with the NAAQS. These area attainment SIPs are comprehensive plans that describe how an out-of-compliance area will attain and maintain the particular NAAQS standard(s) it does not conform to. Once an out-of-compliance area has attained the standard in question, a maintenance SIP is required for a period of time to ensure the area will continue to meet the standard.

SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, State regulations, and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to SIPs. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards those revisions to the USEPA for approval and publication in the Federal Register.

Local

Antelope Valley Air Quality Management District (AVAQMD)

AVAQMD Federal 8-hour Ozone Attainment Plan (Western Mojave Desert Non-Attainment Area)

On April 20, 2004, the USEPA designated the Southern Desert nonattainment area as nonattainment O_3 NAAQS pursuant to the provisions of the Federal CAA. The Southern Desert Ozone Nonattainment Area includes the Antelope Valley portion of Los Angeles County.

Final Mojave Desert Planning Area Federal Particulate Matter 10 (PM10) Attainment Plan

On January 20, 1994, the USEPA re-designated a significant portion of the Mojave Desert as a nonattainment area with respect to the PM10 NAAQS. This nonattainment area covers a vast geographical region, including the urban areas of Victor Valley and Barstow, the Morongo Basin, along with the rural desert environs reaching to the Nevada and Arizona state lines. The PM10 Attainment Plan was prepared in July 1995 to provide a complete description and submittal to USEPA of the PM10 attainment planning elements which the AVAQMD will implement to bring the nonattainment area into compliance with federal law. Most importantly, the PM10 Attainment Plan serves as a planning tool for reducing PM10 pollution. The PM10 Attainment Plan sets forth an air quality improvement program for the region which will be implemented by both the public and private sector of the community.

AVAQMD Rules

The AVAQMD has adopted rules to limit air emissions. Many of these rules were put in place as required by measures specified in various SIPs and air quality management plans. The AVAQMD rules that are applicable to the Project include, but are not limited to, those listed below:

- Rule 201 – Written Authorization. This rule prohibits the building, erection, installation, alteration, or replacement of any equipment that may affect the issuance of air contaminates without first obtaining written authorization for such construction from the Air Pollution Control Officer.
- Rule 203 – Permit to Operate. This rule prohibits the operation of equipment that may affect the issuance of air contaminates without first obtaining a written permit from the Air Pollution Control Officer.
- Rule 206 – Posting of Permit to Operate. Permits and written authorizations granted under Rule 201 and/or 203 must be posted to be completely visible on the equipment Rule 401 – Visible Emissions. This rule prohibits discharges of air contaminants or other material, which are as dark or darker in shade as that designated No. 1 on the Ringelmann Chart.
- Rule 402 – Nuisance. This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.
- Rule 403 – Fugitive Dust. The purpose of this rule is to control the amount of PM entrained in the atmosphere from manmade sources of fugitive dust. The rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area to be visible beyond the emission source's property line.
- Rule 404 – Particulate Matter Concentration. Prohibits discharge from any source of particulate matter in excess of the concentration at standard conditions, shown in Table 404(a) of Appendix B.
- Rule 409 – Combustion Contaminants. Prohibits the burning of fuel that results in the discharge of contaminants exceeding 0.23 grams per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO2) at standard conditions averaged over a minimum of 15 consecutive minutes.
- Rule 431 – Sulfur Content in Fuels. Limits the sulfur content in fuels during combustion in stationary equipment.
- Rule 474 – Fuel Burning Equipment. Limits the emissions of oxides of nitrogen (NOx) from non-Mobile, Fuel Burning Equipment.

<u>Antelope Valley Area Plan</u>

The Antelope Valley Area Plan (AVAP) was adopted on June 16, 2015. The Plan contains goals and policies that guide future development in the Antelope Valley. Goals and policies outlined in Conservation and Open Space Element describe how to improve air quality that are relevant to this Project.

Conservation and Open Space Element

Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.

> Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed.
>
> Policy COS 10.5: Encourage the development of emerging energy technologies, such as "solar roads."

Goal COS 12: Individual energy systems for onsite use that reduce consumption of non-renewable resources and dependence on utility-scale energy production facilities.

> Policy COS 12.1: Promote the use of individual renewable energy systems throughout the County to complement and reduce dependence upon utility-scale renewable energy facilities.
>
> Policy COS 12.2: Require appropriate development standards for individual renewable energy systems to minimize potential impacts to surrounding properties. Simplify the permitting process for individual renewable energy systems that meet these development standards.

Goal COS 13: Utility-scale energy production facilities for offsite use that reduce consumption of nonrenewable resources while minimizing potential impacts on natural resources and existing communities.

> Policy COS 13.1: Direct utility-scale renewable energy production facilities, such as solar facilities, to locations where environmental, noise, and visual impacts will be minimized.
>
> Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.

<u>Los Angeles County General Plan 2035</u>

The Los Angeles County General Plan 2035 establishes the long-range vision, goals, policies, and programs for the unincorporated areas of Los Angeles County. The goals and policies outlined in the Air Quality Element are relevant to the proposed Project:

Air Quality Element

Goal AQ 1: Protection from exposure to harmful air pollutants

> Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.

Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.

Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.

Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use transportation and air quality planning.

Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses.

Goal AQ 3: Implementation of plans and programs to address the impacts of climate change.

Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.

Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015. Policy AQ 3.5: Encourage energy conservation in new development and municipal operations.

Policy AQ 3.6: Support rooftop solar facilities on new and existing buildings.

Los Angeles County Code of Ordinances

The Los Angeles County Code of Ordinances Chapter 12.32 *Control of Hazardous Dust Conditions* indicates that it is unlawful to disturb the surface or subsurface of land consisting 2.5 acres or more, excluding approved construction activities by excavating, smooth tillage, removing natural vegetation, or any other action which raises substantial dust into the atmosphere or which would create, contribute to, or aggravate conditions conducive to the raising of substantial dust into the atmosphere, without first having obtained a permit issued by the agriculture commissioner of the County of Los Angeles and having complied with the terms and conditions of the permit.

Los Angeles County Code of Ordinances Section 22.140.510 *Renewable Energy* establishes standards, conditions, and procedures that support and facilitate the development of small-scale solar energy systems, utility-scale solar energy facilities, temporary meteorological towers, and small-scale wind energy systems in a manner that protects public health, safety, and welfare and minimizes significant impacts to the environment. Section 22.140.510 requires that all utility-scale solar energy facilities include a conceptual dust control plan that must be reviewed and approved by applicable agencies prior to any earthwork practices. Fugitive dust control measures must be implemented during construction, including site watering, using clean gravel not to exceed a depth of six inches where appliable, application of non-toxic soil stabilizers, limiting public access on unpaved areas, posting private roadways with reduced speeds, and/or re-vegetation.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Project would have a significant impact in regard to air quality if one or more of the following would occur:

Threshold a): Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact AQ-1);

Threshold b): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard (refer to Impact AQ-2);

Threshold c): Expose sensitive receptors to substantial pollutant concentrations (refer to Impact AQ-3); or

Threshold d): Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact AQ-4).

AVAQMD Air Quality Thresholds

Under CEQA, the AVAQMD is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction. Under the CAA, the AVAQMD has adopted federal attainment plans for O_3 and PM10. The AVAQMD has dedicated assets to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

According to the AVAQMD's *CEQA and Federal Conformity Guideline*, a project is significant if it triggers or exceeds the most appropriate evaluation criteria:

1. Generates total emissions (direct and indirect) in the excess of the thresholds given in **Table 3; AVAQMD Significant Emissions Thresholds**.

2. Generates a violation of any ambient air quality standard when added to the local background;

3. Does not conform with the applicable attainment or maintenance plan(s)[10];

[10] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

4. Exposes sensitive receptors to substantial pollution concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/ or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

Table 3: AVAQMD Significant Emissions Thresholds		
Criteria Pollutant	**Annual Threshold (tons)**	**Daily Threshold (pounds)**
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_X)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM10)	15	82
Fine Particulate Matter (PM2.5)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3
Source: Antelope Valley Air Quality Management District, *CEQA and Federal Conformity Guidelines*, page 7, August 2016.		

IMPACT ANALYSIS

Impact AQ-1: Would the Project conflict with or obstruct implementation of the appliable air quality plan?

The Project Site is located within the Mojave Desert Air Basin and is regulated by the AVAQMD. The AVAQMD PM10 Attainment Plan and Ozone Attainment Plan established under the Western Mojave Desert Air Quality Management Plans (AQMPs) set forth a comprehensive set of programs that will lead the Basin into compliance with Federal and State air quality standards. The control measures and related emission reduction estimates within the AVAQMD PM10 Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans is determined by:

- Demonstrating Project consistency with local land use plans and/or population projections (**Criterion 1**);
- Demonstrating Project compliance with applicable AVAQMD Rules and Regulations (**Criterion 2**); and
- Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards (**Criterion 3**).

Criterion 1: Consistency with local land use plans and/or population projections.

Growth projections included in the AQMPs form the basis for the projections of air pollutant emissions and are based on general plan land use designations and the Southern California Association of Governments (SCAG) *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016-

2040 RTP/SCS) demographics forecasts. While SCAG has recently adopted the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS), the AVAQMD has not released an updated AQMP that utilizes information from the 2020-2045 RTP/SCS. As such, this consistency analysis is based off the 2016-2040 RTP/SCS. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the County. The AVAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the AQMPs.

The AVAP is the local land use plan, which is a component of the County General Plan, that guides future development through various goals and policies.[11] The Project Site has a Land Use designation of Rural Land 10 (RL10) and is zoned A-2-2 (Heavy Agricultural Zone). Pursuant to the Los Angeles County Code of Ordinances Table 22.16.030, the use of utility-scale solar energy facilities is a permitted use with an approved CUP.

SCAG growth forecasts in the 2016-2040 RTP/SCS estimate unincorporated Los Angeles County's population to reach 1,273,700 persons by 2040, representing a total increase of 233,000 persons between 2012 and 2040.[12] Additionally, SCAG growth forecasts in the 2016-2040 RTP/SCS estimate the County's employment to reach 288,400 jobs by 2040, representing a total increase of 65,500 jobs between 2012 and 2040.[13]

The Project does not include a residential component and would not increase local population growth. The Project does not include a commercial component and would not substantially increase employment. Construction of the Project would not result in residential, commercial, or growth-inducing development that would result in a substantial increase in growth-related emissions. In addition, because of the presence of locally available construction workers, and because of the relatively short duration of construction (approximately seven months), workers are not expected to relocate to the area with their families.

The Project would operate year-round. Typical O&M activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. Therefore, limited operational staff would be required. As such, there would be no employee or population growth as a result of the Project, and the Project would not cause the SCAG growth forecast to be exceeded. As the AVAQMD has incorporated these forecasts on population, housing, and employment into the AQMPs, the Project would be consistent with the AQMPs. Impacts would be less than significant.

Criterion 2: Compliance with applicable AVAQMD Rules and Regulations.

---

11 Antelope Valley Area Plan, https://planning.lacounty.gov/wp-content/uploads/2022/10/Antelope-Valley-Area-Plan.pdf, accessed on December 19, 2023.

12 Southern California Association of Governments, *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy Demographics & Growth Forecast Appendix*, April 2016, accessed on December 19, 2023.

13 Ibid.

The Project would be required to comply with all applicable AVAQMD Rules and Regulations. This would include AVAQMD Rules 401, 402, and 403. AVAQMD Rule 403 requires periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust (PM10) emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions. The Project would comply with applicable AVAQMD rules, enforced through Project Conditions of Approval, and not conflict with applicable AVAQMD Rules and Regulations. Therefore, impacts would be less than significant.

Criterion 3: Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards.

Analysis of the Project's potential to result in more frequent or severe violations of the CAAQS and NAAQS can be satisfied by comparing Project emissions to AVAQMD thresholds. As discussed under Impact AQ-2 below, unmitigated short-term construction emissions would not exceed AVAQMD significance thresholds. Additionally, unmitigated long-term operational emissions of all criteria pollutants studied (NO_X, ROG, CO, NO_X, PM10, and PM2.5) would be less than the applicable AVAQMD significance thresholds. Therefore, the Project would not delay the Basin's attainment goals for O_3[14], PM10, and PM2.5, and would not result in an increase in the frequency or severity of existing air quality violations. As such, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, impacts would be less than significant.

Conclusion

As discussed above, the Project would comply with AVAQMD Rules and Regulations and would not induce population growth. Further, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Thus, the Project would not result in or cause NAAQS or CAAQS violations. As such, the Project would be consistent with the AVAQMD AQMP and impacts would be less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

Impact AQ-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard?

Construction

Project construction involving the use of heavy-duty construction equipment is anticipated to be completed over a period of approximately seven months. The Project involves construction activities

[14] Ground level O_3 is created during a photochemical reaction from NO_X and ROG emissions.

associated with demolition, site preparation, grading, paving, construction/installation, and PV vendor trips.

Exhaust Emissions

Exhaust emissions (e.g., ROG, NO_x, and CO) from Project construction activities would include emissions associated with the transport of machinery and supplies/materials to and from the Project Site, emissions produced on-site as the equipment is used, and emissions from construction workers' personal vehicles traveling to/from the site. Mobile source criteria pollutant emissions are based on the actual number of worker trips and delivery truck trips associated with construction of the proposed Project.

Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2022.1.1.21 (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site.

The analysis includes emissions from delivering the construction materials and PV modules (panels) from the nearest port (a roundtrip distance of approximately 106 miles). Additionally, construction worker trip emissions are based on the maximum construction workforce (70 individuals) and the distance to the nearest populated areas (Lancaster and Palmdale; an average roundtrip distance of 47 miles). Further, as water is anticipated to be supplied by from an off-site source, a construction water truck trip length of 47 miles was accounted for in CalEEMod.

Fugitive Dust Emissions

Fugitive dust from site preparation and facilities construction activities is expected to be short-term and would cease upon completion of Project construction. The Project would implement all applicable AVAQMD dust control techniques, limitations on construction hours, and adhere to AVAQMD Rule 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM10 and PM2.5 concentrations. Additionally, the Project would comply with the Los Angeles County Code of Ordinances Chapter 12.32 *Control of Hazardous Dust Conditions* and Section 22.140.510 *Renewable Energy* regarding air pollution impacts in the form of fugitive dust.

Total Construction Emissions

The analysis of daily construction emissions has been prepared using CalEEMod. Refer to **Appendix A: Air Quality Emissions Data**, for the CalEEMod outputs and results. **Table 4: Construction-Related Emissions (Pounds per Day)** and **Table 5: Construction-Related Emissions (Tons per Year)** present the anticipated short-term construction emissions. As indicated in **Table 4** and **Table 5**, criteria pollutant emissions during Project construction would not exceed the AVAQMD significance thresholds. Therefore, total Project construction-related air emissions would be less than significant.

Table 4: Construction-Related Emissions (Pounds per Day)						
Construction Year	**Maximum Pounds Per Day[1]**					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025) [2]	2.79	25.3	30.7	0.06	5.01	2.26
AVAQMD Thresholds	***137***	***137***	***548***	***137***	***82***	***65***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Notes: 1. The highest values between summer and winter results were used as a worst-case scenario. 2. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.						
Source: CalEEMod version 2022.1.1.21 Refer to **Appendix A** for model outputs.						

Table 5: Construction-Related Emissions (Tons per Year)						
Construction Year	**Maximum Tons per Year[1]**					
	ROG	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Year (2025)	0.12	0.98	1.26	<0.005	0.19	0.09
AVQMD Thresholds	***25***	***25***	***100***	***25***	***15***	***12***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Notes: 1. The reductions/credits for construction emissions are based on adjustments to CalEEMod and are required by the AVAQMD Rules. The adjustments applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour.						
Source: CalEEMod version 2022.1.1.21 Refer to **Appendix A** for model outputs.						

Operations

Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. **Table 6: Operational Emissions (Pounds per Day)** and **Table 7: Operational Emissions (Tons per Year)**, present the Project's anticipated mobile source (i.e., motor vehicle use), energy source, and area source emissions. Each of these sources are described below.

Table 6: Operational Emissions (Pounds per Day)						
	Maximum Pounds Per Day[1]					
Source	**ROG**	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	40.7	0.49	58.7	<0.005	0.10	0.08
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.01	0.40	0.06	<0.005	0.13	0.04
Total Emissions	*40.7*	*0.90*	*58.8*	*0.01*	*0.24*	0.12
AVAQMD Thresholds	***137***	***137***	***548***	***137***	***82***	***65***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding. 1. The highest values between summer and winter results were used as a worst-case scenario.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix A** for model outputs.						

Table 7: Operational Emissions (Tons per Year)						
	Maximum Tons per Year					
Source	**ROG**	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area	6.53	0.04	5.28	< 0.005	0.01	0.01
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	<0.005	0.06	0.02	<0.005	0.02	0.01
Total Emissions	*6.53*	*0.010*	*5.29*	*<0.005*	*0.03*	0.01
AVAQMD Thresholds	***25***	***25***	***100***	***25***	***15***	***12***
Exceed AVAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
ROG = Reactive Organic Gases; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_2 = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less						
Note: Total values are from CalEEMod and may not add up 100 percent due to rounding.						
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix A** for model outputs.						

Area Source Emissions. Area source emissions would be generated due to potential BESS architectural coatings. Other typical area sources (e.g., consumer products, landscaping equipment, etc.) would not be utilized by the Project.

Energy Source Emissions. Energy source emissions would be generated due to electricity usage associated with the Project. The Project's operational activities would not consume natural gas. The Project would consume negligible amounts of electricity for auxiliary equipment, such as BESS HVAC units, communications equipment, and lighting.

Mobile Source Emissions. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM10, and PM2.5 are all

pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM10, and PM2.5); however, CO tends to be a localized pollutant, dispersing rapidly at the source. During operations, it is estimated that the Project would require 6 maintenance-related round trips and up to 4 solar panel and inverter washing roundtrips per year, resulting in approximately 10 total roundtrips per year (20 one-way trips); refer to **Appendix A** for assumptions and calculations.

Total Operational Emissions

As shown in **Table 6** and **Table 7**, estimated total Project operational emissions would not exceed established AVAQMD thresholds. Therefore, impacts associated with Project operational emissions would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors VOCs and NO_x affect air quality on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating criteria pollutants generated by an individual project to specific health effects or additional days of nonattainment would produce meaningless results. The NAAQS and CAAQS are set to be protective of human health, however, which means that the Project's less than significant increases in regional air pollution from criteria air pollutants would have less than significant impacts on human health.

The AVAQMD does not have clear thresholds or methodology to quantify health impacts of criteria pollutants from individual projects. Other air districts, including the South Coast Air Quality Management District (SCAQMD), have stated that it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants from individual projects for various reasons including modeling limitations as well as the fact that certain emissions are the result of chemical interactions and it is impossible to determine exactly where in the atmosphere precursor air pollutants will interact.[15]

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD has written that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at the site with the highest ozone levels by only nine parts per billion. As such, the SCAQMD concludes that it is not

[15] South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with less than a regional scope) due to photochemistry and regional model limitations.

Because the Project would not exceed AVAQMD's thresholds for construction and operational air emissions, the Project would have a less than significant impact for air quality health impacts as well and no modeling of health impacts was performed.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills. As shown in **Table 4** and **Table 5**, emissions would not exceed AVAQMD thresholds and impacts would be less than significant.

Cumulative Impacts

Cumulative Short-Term Construction Impacts

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the AVAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMPs pursuant to CAA mandates. As such, the Project would comply with AVDAQMD Rule 403 greatest requirements and implement all applicable AVAQMD rules to reduce construction air emissions to the extent feasible. AVAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track out onto public roads, and the minimization of non-essential grading during high wind conditions. In addition, the Project would comply with adopted AQMPs emissions control measures. Implementation of AVAQMD Rule 403 and the AQMPs emissions control measures would help the Project further reduce emissions from construction activities. Pursuant to AVAQMD rules and mandates, these same requirements (i.e., Rule 403 compliance and compliance

with adopted AQMPs emissions control measures) would also be imposed on construction projects throughout the Basin, which would include cumulative projects.

As discussed in **Table 4** and **Table 5** above, the Project's estimated short-term construction emissions would be below the AVAQMD thresholds and would result in less than significant air quality impacts. Thus, the Project's construction emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the Basin. A less than significant impact would occur in this regard.

Cumulative Long-Term Operational Impacts

As discussed in **Table 6** and **Table 7**, the Project would not result in long-term operational air quality impacts. Additionally, adherence to AVAQMD rules and regulations alleviate cumulatively considerable contributions to potential significant impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed to address existing significant cumulative impacts. As a result, the Project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, no cumulative operational impacts associated with implementation of the Project would result.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

Impact AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, parks, daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a residential use located approximately 110 feet south. No schools, hospitals, or parks are located within two miles of the Project Site.

Construction

Project construction is anticipated to be completed over a period of approximately seven months. Project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit Diesel Particulate Matter (DPM). In 1998, the CARB identified diesel exhaust as a Toxic Air Contaminant (TAC). Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. Project construction would comply with the California Code of Regulations (CCR), Title 13, Section 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to nor more than five minutes. Implementation of these regulations would reduce the amount of DPM emissions from Project construction. The closest sensitive receptor is

located 110 feet (measured from the Project property line to the property line of the nearest sensitive receptor) south of the Project. Due to the distance between the Project Site and the closest sensitive receptors, potential health impacts on sensitive receptors associated with exposure to DPM from Project construction would be less than significant.

Furthermore, construction activities are expected to occur well below the 30-year exposure period used in health risk assessments. Emissions would be short-term and intermittent in nature, and therefore would not generate TAC emissions at high enough exposure concentrations to represent a health hazard. Therefore, construction of the Project would not result in a significant increase in elevated cancer risk to nearby sensitive receptors and impacts would be less than significant.

Operations

As stated in the Project Description, typical O&M activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. None of these activities would result in the generation of excessive TAC emissions, or associated health risks. Therefore, operation of the Project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors and potential impacts would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.). CO is primarily a product of incomplete combustion of gaseous or liquid fuels, meaning tailpipe emissions are worse in stop-and-go congested traffic as compared to free flowing conditions. The Project does not include any stationary sources of combustion, and results in a net increase of approximately 10 maintenance and solar panel washing roundtrips per year (20 one-way trips). The Project is not located near existing CO hotspots and the trips associated with the Project are insufficient to create a CO hotspot.

With such low existing ambient levels of CO, low levels of CO emissions from the Project, and lack of congested roadways around the Project, the Project would not cause CO hotspots in excess of applicable NAAQS or CAAQS standards at any intersections within the County. Impacts would be less than significant in this regard.

Naturally Occurring Asbestos.

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities.

According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks do not occur within the vicinity of the Project Site. Thus, there would be no impact in this regard.

Valley Fever

Coccidioidomycosis (CM), often referred to as San Joaquin Valley Fever or Valley Fever, commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top 2-12 inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust are also more likely to contract Valley Fever.

The fugus is known to live in the soil in the southwestern United States and parts of Mexico and Central and South America. People and animals can get sick when they breathe in dust that contains the Valley fever fungus. This fungus infects the lungs and can cause respiratory symptoms including cough, fever, chest pain, and tiredness. In California, the number of reported Valley fever cases has greatly increased in recent years. The number of Valley Fever cases in the United States has been steadily increasing over the past few years. There were over 20,000 reported cases in 2019, and the CDC estimates that an additional 150,000 cases go undiagnosed each year. About 32 percent of all cases occur in California.[16]

When a susceptible human who is not immune inhales these airborne spores, they enter the lungs and may cause respiratory infections, such as pneumonia. Roughly 60 percent of individuals infected with CI have no symptoms. For the remaining 40 percent, a wide spectrum of clinical symptoms can occur. The most common presentation of CM is a mild, influenza-like illness while the more severe includes pneumonia-like symptoms requiring rest and medication (fungus-killing medicines). The symptoms of the disease typically begin about two weeks after inhaling the spores. These symptoms typically include flu-like symptoms such as fever, aching, chills, sweats, fatigue, cough, and headache. In uncomplicated CM, symptoms usually subside in a few weeks or months.

[16] Center for Disease Control and Prevention, *Valley Fever (Coccidioidomycosis)* Statistics, https://www.cdc.gov/fungal/diseases/coccidioidomycosis/statistics.html, accessed December 19, 2023.

In approximately one percent of infected persons, disseminated disease develops, in which CM is spread from the lungs to other areas of the body such as the skin, bones, brain, or other organs. This spreading of CM infection beyond the lungs can be fatal. Meningitis, the most lethal complication of disseminated CM, may cause a stiff neck, severe and persistent headache, nausea, vomiting, and various other central nervous system symptoms such as disorientation, loss of balance or equilibrium, inability to think clearly and loss of consciousness. People with diabetes and women who contract CM while they are pregnant are particularly prone to dissemination of the disease.

Currently, no vaccine is available to prevent this infection. Further, there is no effective way to detect and monitor CI growth patterns in the soil. Thus, controlling the growth of the fungus in the environment to reduce the risk to individuals is currently not a viable option. A skin test can be conducted to identify individuals who have been infected in the past and would have developed immunity to the fungus, although recurrence as a result of immuno-suppression is possible. Even if the fungus is present in soil, earthmoving activities may not result in increased incidence of valley fever. Propagation of Coccidioides is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells.

To reduce exposure to CI, development projects implement measures to prevent wind dispersion of arthrospores, such as applying dust control palliatives, water, or vegetation to fungus-bearing soils. To facilitate early identification of infection and subsequent treatment. The Los Angeles County Code of Ordinances Section 22.140.510 requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403 and AVAQMD CEQA Guideline Fugitive Dust Control Measures. The California Department of Public Health recommends stopping outside activity during conditions where the dust cannot be controlled well. Appropriate use of respiratory protect may be also needed in some circumstances.

During ground disturbing activities associated Project construction, the potential exists that such activities could disturb dust particles and, if present, CI spores, which could then be released into the air and potentially be inhaled by on-site workers and nearby sensitive receptors; exposure to these spores can cause Valley Fever. Impacts during Project construction related to CI spores would be potentially significant.

AVAQMD Rule 403 requires that fugitive dust be controlled with the best available control measure in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of the best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track onto public roads and the minimization of non-essential grading during high wind conditions. Due to the distance of the nearest sensitive receptor, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. Although CEQA does not require the analysis of a Project's impacts on its construction workers, such analysis is included for informational purposes. The best approaches to reducing construction workers' risk of contracting Valley Fever are awareness and dust reduction because dust can be an indicator that increased efforts are needed to control other airborne particulates (including CI spores, if any). Compliance with AVAQMD rules reduce dust. For example, Rule 401 prohibits a person from discharging

into the atmosphere any air emission contaminant for a period or periods aggregating more than three minutes in any single hour emissions that is: (a) as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines; or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than 20 percent opacity. Rule 402 prohibits the discharge of air contaminants in quantities that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public. Additionally, the Project would be required to provide training and awareness of Valley Fever via **Mitigation Measure MM AQ-1**. **Mitigation Measure MM AQ-1** would further ensure worker safety through education and ensuring implementation of required California Division of Occupational Safety and Health (Cal/OSHA) safety measures.

With the implementation of **Mitigation Measure MM AQ-1**, the potential for the release of CI spores, if present, and the associated potential for workers or nearby residents to contract Valley Fever from Project construction activities would be minimized. Accordingly, the Project would not add significantly to the existing exposure level of construction workers or nearby residents to the CI fugus. Therefore, potential impacts would be less than significant with mitigation incorporated.

Impact Determination: Potentially Significant Impact.

Mitigation Measure:

MM AQ-1: Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction:

- An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever.
- Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction.
- Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.

- Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators.
- Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.

With implementation of **Mitigation Measure MM AQ-1**, potentially significant impacts related to sensitive receptor pollutant exposure related to Valley Fever would be reduced to less than significant levels.

Impact AQ-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

According to the CARB's *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project includes construction of a solar PV and energy storage facility and does not include any uses identified by the CARB as being associated with odors.

Project construction activities may generate detectable odors from heavy-duty equipment exhaust. However, construction-related odors would be short-term in nature and cease upon completion of Project construction. Further, the nearest potential residence is too far from the Project Site to detect construction odors. In addition, the Project would be required to comply with the CCR, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors, if any, from heavy-duty equipment exhaust. Therefore, potential impacts would be short-term and are considered less than significant.

As previously noted, land uses associated with odor complaints do not typically include PV electricity generation and energy storage facilities. During operations, the Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities.

It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in 10 total annual roundtrips (20 one-way trips). Project operational vehicle trips would be minimal and not of sufficient number to create concentrations of odorous fumes to form and cause a nuisance. As such, potential impacts would be easily dispersed in the atmosphere and are less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures*:* No mitigation is required.

REFERENCES

Antelope Valley Air Quality Management District (AVAQMD), https://avaqmd.ca.gov/ambient-air-monitoring, accessed December 19, 2023.

Antelope Valley Air Quality Management District, CEQA and Federal Conformity Guidelines, page 7, August 2016.

Antelope Valley Air Quality Management District, *Attainment Status,* https://avaqmd.ca.gov/files/e0986ab83/AVAQMD+2017+Attainment+Status+Table.pdf, accessed December 19, 2023

Antelope Valley Area Plan, https://planning.lacounty.gov/wp-content/uploads/2022/10/Antelope-Valley-Area-Plan.pdf, accessed on December 19, 2023.

California Air Resources Board, *ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed December 19, 2023.

California Air Resources Board, *AQMIS2: Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed December 19, 2023

California Air Resources Board, Quality Assurance Air Monitoring Site Information, *Site Information for Lancaster 4331 Division Street* , Quality Assurance Air Monitoring Site Information (ca.gov), accessed December 19, 2023.

California Air Resources Board, Annual Network Plan, Covering Monitoring Operations in 25 California Air Districts, https://avaqmd.ca.gov/files/d71e27d0f/2021+Annual+Network+Plan.pdf, accessed December 19, 2023.

Center for Disease Control and Prevention, *Valley Fever (Coccidioidomycosis)* Statistics, https://www.cdc.gov/fungal/diseases/coccidioidomycosis/statistics.html, accessed December 19, 2023.

Los Angeles County Department of Regional Planning. June 2015. Antelope Valley Area Plan. https://planning.lacounty.gov/wp-content/uploads/2022/10/Antelope-Valley-Area-Plan.pdf, accessed December 19, 2023.

Los Angeles County Department of Regional Planning, 2022, Los Angeles County Final General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 19, 2023.

Los Angeles County Code of Ordinances, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO, accessed December 19, 2023.

Mojave Desert Air Quality Management District, *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, February 2020.

San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno, 2014.*

South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

Southern California Association of Governments, *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy Demographics & Growth Forecast,* April 2016.

State of California Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2020-2023 with 2023 Benchmark*, May 2023. https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/, accessed December 19, 2023.

United States Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed December 19, 2023.

United States Environmental Protection Agency (EPA), *Process of Reviewing the National Ambient Air Quality Standards*, https://www.epa.gov/criteria-air-pollutants/process-reviewing-national-ambient-air-quality-standards, accessed December 19, 2023.

Appendix A

Air Quality Emissions Data

230th Street Solar Project Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

3.3. Site Preparation (2025) - Unmitigated

3.5. Grading (2025) - Unmitigated

3.7. Construction/Installation (2025) - Unmitigated

3.9. PV Vendor Trip (2025) - Unmitigated

3.11. Paving (2025) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	230th Street Solar Project
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	6.30
Precipitation (days)	22.6
Location	230th St W & W Avenue C 8, California 93536, USA
County	Los Angeles-Mojave Desert
City	Unincorporated
Air District	Antelope Valley AQMD
Air Basin	Mojave Desert
TAZ	6809
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

User Defined Industrial	31.0	User Defined Unit	31.0	1,350,360	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	40.7	0.90	58.8	0.01	0.11	0.13	0.24	0.09	0.03	0.12	0.00	700	700	0.01	0.07	1.04	723
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	31.0	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	0.00	458	458	< 0.005	0.07	0.03	480
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.15	35.8	0.55	29.0	< 0.005	0.06	0.09	0.15	0.04	0.02	0.07	0.00	446	446	0.01	0.05	0.32	463
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	6.53	0.10	5.29	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	0.00	73.9	73.9	< 0.005	0.01	0.05	76.6

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.40	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	1.04	481
Area	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	10.4	40.7	0.90	58.8	0.01	0.11	0.13	0.24	0.09	0.03	0.12	0.00	700	700	0.01	0.07	1.04	723
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	0.03	480
Area	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	31.0	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	0.00	458	458	< 0.005	0.07	0.03	480
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	< 0.005	0.30	0.04	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	327	327	< 0.005	0.05	0.32	343
Area	5.15	35.8	0.24	29.0	< 0.005	0.05	—	0.05	0.04	—	0.04	—	119	119	< 0.005	< 0.005	—	120
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	5.15	35.8	0.55	29.0	< 0.005	0.06	0.09	0.15	0.04	0.02	0.07	0.00	446	446	0.01	0.05	0.32	463

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.2	54.2	< 0.005	0.01	0.05	56.8
Area	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.94	6.53	0.10	5.29	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	0.00	73.9	73.9	< 0.005	0.01	0.05	76.6

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.25	0.25	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.97	0.87	< 0.005	0.04	—	0.04	0.04	—	0.04	—	150	150	0.01	< 0.005	—	151

Demolitio	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.9	24.9	< 0.005	< 0.005	—	24.9
Demolitio n	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.04	2.52	0.43	0.02	0.04	0.74	0.77	0.04	0.21	0.24	—	2,656	2,656	< 0.005	0.42	0.15	2,781
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.9	59.9	< 0.005	< 0.005	0.12	60.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.11	122
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.02	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.3	19.3	< 0.005	< 0.005	0.02	20.2

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27	1.07	10.2	9.42	0.02	0.44	—	0.44	0.41	—	0.41	—	1,668	1,668	0.07	0.01	—	1,674
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.59	0.54	< 0.005	0.03	—	0.03	0.02	—	0.02	—	96.0	96.0	< 0.005	< 0.005	—	96.3
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.9	15.9	< 0.005	< 0.005	—	15.9

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72	1.44	14.8	13.9	0.04	0.63	—	0.63	0.58	—	0.58	—	4,262	4,262	0.17	0.03	—	4,276
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.85	0.80	< 0.005	0.04	—	0.04	0.03	—	0.03	—	245	245	0.01	< 0.005	—	246
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.6	40.6	< 0.005	< 0.005	—	40.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Construction/Installation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.91	2.44	20.2	20.7	0.05	0.84	—	0.84	0.77	—	0.77	—	4,845	4,845	0.20	0.04	—	4,862
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.27	2.27	2.32	0.01	0.09	—	0.09	0.09	—	0.09	—	544	544	0.02	< 0.005	—	546
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	90.1	90.1	< 0.005	< 0.005	—	90.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.03	0.03	1.14	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,473	1,473	< 0.005	0.21	4.42	1,539
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.07	0.80	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	153	153	0.01	0.01	0.29	155
Vendor	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	166	166	< 0.005	0.02	0.21	173
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.4	25.4	< 0.005	< 0.005	0.05	25.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.4	27.4	< 0.005	< 0.005	0.04	28.6

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. PV Vendor Trip (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	0.87	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	137
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.97	8.97	< 0.005	< 0.005	—	9.00
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.48	1.48	< 0.005	< 0.005	—	1.49

Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.01	0.44	0.10	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	601	601	< 0.005	0.08	1.81	628
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.5	39.5	< 0.005	0.01	0.05	41.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.54	6.54	< 0.005	< 0.005	0.01	6.83
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.63	7.63	< 0.005	< 0.005	—	7.66
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.26	1.26	< 0.005	< 0.005	—	1.27
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.2	41.2	< 0.005	< 0.005	0.08	41.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.81	6.81	< 0.005	< 0.005	0.01	6.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	0.01	0.01	0.40	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	1.04	481
Total	0.01	0.01	0.40	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	1.04	481
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.01	0.01	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	0.03	480
Total	0.01	0.01	0.42	0.06	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	—	458	458	< 0.005	0.07	0.03	480
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.2	54.2	< 0.005	0.01	0.05	56.8
Total	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.2	54.2	< 0.005	0.01	0.05	56.8

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	10.4	9.64	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Total	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.94	0.87	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Total	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2025	1/22/2025	5.00	16.0	—
Site Preparation	Site Preparation	1/23/2025	2/20/2025	5.00	21.0	—
Grading	Grading	2/21/2025	3/23/2025	5.00	21.0	—
Construction/Installation	Building Construction	4/8/2025	6/3/2025	5.00	41.0	—
PV Vendor Trip	Building Construction	6/4/2025	7/7/2025	5.00	24.0	—
Paving	Paving	3/24/2025	4/7/2025	5.00	11.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Off-Highway Trucks	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Skid Steer Loaders	Diesel	Average	1.00	8.00	423	0.48
Grading	Rollers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Cranes	Diesel	Average	1.00	8.00	82.0	0.20
Construction/Installation	Other Construction Equipment	Diesel	Average	1.00	8.00	14.0	0.74
Construction/Installation	Bore/Drill Rigs	Diesel	Average	1.00	7.00	367	0.29
Construction/Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	46.0	0.45
Construction/Installation	Excavators	Diesel	Average	1.00	7.00	84.0	0.37
Construction/Installation	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Construction/Installation	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Construction/Installation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Construction/Installation	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
PV Vendor Trip	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	37.0	0.48
Paving	Rollers	Diesel	Average	1.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	41.0	47.0	LDA,LDT1,LDT2
Demolition	Vendor	—	0.00	HHDT,MHDT
Demolition	Hauling	22.0	37.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	41.0	47.0	LDA,LDT1,LDT2
Site Preparation	Vendor	11.0	47.0	HHDT,MHDT
Site Preparation	Hauling	0.00	0.00	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	41.0	47.0	LDA,LDT1,LDT2
Grading	Vendor	11.0	47.0	HHDT,MHDT
Grading	Hauling	0.00	0.00	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	41.0	47.0	LDA,LDT1,LDT2
Paving	Vendor	0.00	0.00	HHDT,MHDT
Paving	Hauling	0.00	0.00	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Construction/Installation	—	—	—	—
Construction/Installation	Worker	41.0	47.0	LDA,LDT1,LDT2
Construction/Installation	Vendor	11.0	47.0	HHDT,MHDT

Construction/Installation	Hauling	0.00	0.00	HHDT
Construction/Installation	Onsite truck	0.00	0.00	HHDT
PV Vendor Trip	—	—	—	—
PV Vendor Trip	Worker	0.00	0.00	LDA,LDT1,LDT2
PV Vendor Trip	Vendor	2.00	106	HHDT,MHDT
PV Vendor Trip	Hauling	0.00	0.00	HHDT
PV Vendor Trip	Onsite truck	0.00	0.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
PV Vendor Trip	0.00	0.00	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,613	—
Site Preparation	—	—	10.5	0.00	—

Grading	—	—	10.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	3.00	0.00	0.00	782	141	0.00	0.00	36,761

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	2,025,540	675,180	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Industrial	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.9	annual days of extreme heat
Extreme Precipitation	3.50	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	11.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	75.4
AQ-PM	2.66
AQ-DPM	5.23
Drinking Water	79.0
Lead Risk Housing	26.3
Pesticides	46.2
Toxic Releases	38.6
Traffic	27.1
Effect Indicators	—
CleanUp Sites	58.2

Groundwater	35.0
Haz Waste Facilities/Generators	74.7
Impaired Water Bodies	33.2
Solid Waste	76.4
Sensitive Population	—
Asthma	50.3
Cardio-vascular	48.9
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.5
Housing	37.5
Linguistic	7.38
Poverty	61.8
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	54.70293853
Employed	9.136404466
Median HI	39.4199923
Education	—
Bachelor's or higher	33.8380598
High school enrollment	100
Preschool enrollment	1.873476197
Transportation	—

Auto Access	98.98626973
Active commuting	19.70999615
Social	—
2-parent households	49.7754395
Voting	0.769921725
Neighborhood	—
Alcohol availability	91.7875016
Park access	21.18567946
Retail density	2.771718209
Supermarket access	5.479276274
Tree canopy	58.5268831
Housing	—
Homeownership	81.40639035
Housing habitability	70.38367766
Low-inc homeowner severe housing cost burden	21.59630438
Low-inc renter severe housing cost burden	89.60605672
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	46.81124086
Arthritis	0.0
Asthma ER Admissions	66.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	3.0
Cognitively Disabled	48.3
Physically Disabled	7.0
Heart Attack ER Admissions	51.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	98.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	26.5
SLR Inundation Area	0.0
Children	98.6
Elderly	16.2
English Speaking	73.9
Foreign-born	8.5
Outdoor Workers	11.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	99.8
Traffic Density	33.4
Traffic Access	23.0
Other Indices	—

Hardship	36.8
Other Decision Support	—
2016 Voting	71.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	38.0
Healthy Places Index Score for Project Location (b)	26.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on Project description
Construction: Construction Phases	Changes according to client construction schedule revised December 5, 2023.
Construction: Off-Road Equipment	changes according to client construction schedule
Construction: Trips and VMT	According to Project assumptions

Construction: Architectural Coatings	No architectural coating
Operations: Vehicle Data	Adjusted based on Project Assumptions Non Res W-O 47 miles 66.67 % Non Res O-O 47 miles 33.33%
Operations: Fleet Mix	Fleet Mix according to Project Description and Project Assumptions

Version 2, December 5, 2023

230th Street

Phase	Start Date	End Date	Work Days
Demolition	1/1/2025	1/22/2025	15
Site Preparation	1/23/2025	2/20/2025	20
Grading	2/21/2025	3/23/2025	22
Paving	3/24/2025	4/7/2025	10
Construction/Installation	4/8/2025	6/3/2025	40
PV Panel vendor Trips	6/4/2025	7/7/2025	23

Equipment List

Demolition	
Dozer	2
Excavator	3
Concrete/industrial straws	1
Site Preparation	
Tractor/loader/backhoe	1
Dozers	1
Grading	
Excavators	1
Rubber Tired Dozers	1
Off-Highway Trucks	1
Skid Steer Loaders	1
Rollers	1
Construction/Installation	
Cranes	1
Pile driver rig	1
Drill rig	1
Tractors/Loaders/Backhoes	1
Excavators	1
Off-Highway Trucks	1
concrete truck	1
Rubber Tired Dozers	1
Trenchers	1
Skid steer	1
PV Vendor Trips	
Tractor/Loader/Backhoe	1
Paving	
Rollers	1

Worker Trips

	Distance from Project Site	Population[1]	%	Peak Workers
Lancaster	28	173,376	104%	36
Palmdale	37	165,917	49%	34
Totals	*65*	*339,293*		*70*
		Trip Length (miles):	**47**	
		Estimated Worker Trips[2]:	**41**	

Notes:
1. California Department of Finance Demographic Research Unit, Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2021-2023, 1/1/2023
2. Based on the Los Angeles County Average Vehicle Occupancy rate for home-work trips within the *Year 2000 Post-Census Regional Travel Survey* , Table 12, prepared by Southern California Association of Governments, dated 2003.

PV Panel Vendor Trips

	Distance from Project Site	Trips/Day[1]	System Installation (# Days)	Total Trips
Port of Long Beach	106	2	47	95

Notes:
1. A similar project in Los Angeles County assumed 5 trips per day (113 days) from the Port of Long Beach for system installation (130 MW). Since the project is 7.5 MW, scaled down the trips/day to 5% of the other project.

Notes:
CalEEMod Worker Trips: Roundtrip
CalEEMod Vendor Trips: Roundtrip

Water Truck Trips (Off-Site Wells)

	Distance Traveled	Trips/Day[1]	System Installation (# Days)	Total Trips[2]
Site Prep	47	11	22	242
Grading	47	11	44	484
Construction/Installation	47	11	41	451
			Total	1,177

Notes:

1. For another solar project, during a 6-month construction, the project will use 13 acre-feet or 4,236,000 gallons
2.Using similar methodology, each water truck would hold an average of 4,697 gallons (4,236,000 gallons/4,697 gallons per truck = 902 trucks total. 902 total trucks / 87 total days site prep grading and construction = 11 trucks per day). Water trucks hold anywhere from 2,000 to as much as 20,000 gallons.
3.Trips assumed as Vendor trips. Distance is 47 miles based on off-site well extraction.

THAT DISTANCE IS HAULING	**37 miles to the Antelope Valley**
DISTANCE FOR	**Landfill**
DEMOLITION	

Operational Trips: The Project is exepcted to generate a total of approximatley 20 operational trips per year.

AQ Trip Rate: 0.0967742

GHG Trip Rate: 0.0015

*2 panel washing, 1 water truck

	Non Res W-O (panel washing)	Non Res O-O (water truck)
Length (miles)	47	47
Purpose and Percentages	66.67	33.33
Fleet Mix	HHD%	100

Appendix C-1

Biological Resources Assessment

Kimley»Horn

230TH STREET SOLAR PROJECT, BIOLOGICAL RESOURCES ASSESSMENT

LOS ANGELES COUNTY, CALIFORNIA

FEBRUARY 2023, UPDATED OCTOBER 2024

ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THIS DOCUMENT AND ONLY FOR THE SPECIFIC PROJECT FOR WHICH THIS REPORT WAS PREPARED.

Prepared for:

Stephanie Loucas
Chief Development Officer
RPCA Solar 12, LLC
Renewable Properties, LLC
44 Montgomery Street, Suite 3150San Francisco, CA 94104

230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

Prepared by:

Lisa Achter
Senior Wildlife Biologist

Reviewed by:

Susan Dewar
Senior Ecologist, Project Manager

KLEINFELDER
2882 Prospect Park Drive, Suite 200
Rancho Cordova, CA 95670

February 2023, Updated October 2024
Kleinfelder Project No. 20234230.001A

TABLE OF CONTENTS

Section **Page**

SUMMARY **1**

1 INTRODUCTION **2**
1.1 Background and Project Description 2
1.2 Objectives 2
1.3 Project Location 2

2 REGULATORY SETTING **3**
2.1 Federal 3
2.2 State 4
2.3 Local 6

3 METHODS **7**
3.1 Desktop Review 7
3.2 Definition of Special-Status Species 8
3.2.1 Special-Status Wildlife Species 8
3.2.2 Special-Status Plant Species 8
3.3 Field Survey 9

4 RESULTS **9**
4.1 Biological Setting 9
4.2 Existing Habitats 9
4.2.1 Soils 9
4.2.2 Vegetation Communities 10
4.3 Special-Status Wildlife Species with Potential To Occur in the Project Area 11
4.3.1 Special-Status Wildlife Species 12
4.3.2 Special-Status Plant Species 13
4.4 Critical Habitat 13
4.5 Potentially Jurisdictional Aquatic Resources 13
4.6 Wildlife Corridors and Habitat Linkages 14
4.7 Common Wildlife Species 14

5 RECOMMENDATIONS **14**

6 REFERENCES CITED **17**

FIGURES
1 Regional/Vicinity
2 Project Area
3 Vegetation Communities
4 Photographs

APPENDICES
A Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California
B Special-Status Plant Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

230TH STREET SOLAR PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

SUMMARY

The proposed 230th Street Solar Project (Project) is located in a generally undeveloped area of Los Angeles County, approximately two miles east of the agricultural settlement of Neenach, California (Figure 1). In January of 2023, Kleinfelder biologist Bryan Nelson performed a desktop review of the Project vicinity and Kleinfelder biologist Ryan Hilgris conducted a field verification survey of the Project Area (Figure 2). The intent of the field verification survey was to identify and characterize existing on-site biological resources, to the extent possible, and determine the potential for special-status species and/or sensitive habitats (as defined by state and federal resource agencies) to occur on the site.

The field survey focused on the approximately 31-acre Project Area and a 50-foot buffer. Based on the results of the desktop review and field verification survey, four special-status wildlife species have a moderate potential to occur in the Project Area; however, no special-status plant species are expected to occur. No potentially jurisdictional waters of the U.S. or state were observed within or adjacent to the Project Area during the field survey.

This report serves to document the methods and results of the January 2023 biological field survey, provides updates and clarification based on LA County comments on the report, describes potential biological resource constraints associated with construction of a solar facility at the site, and provides recommendations to address these constraints.

1 INTRODUCTION

1.1 BACKGROUND AND PROJECT DESCRIPTION

The 230th Street Solar Project is a small-scale, ground-mounted utility-scale solar energy plus battery energy storage facility located on approximately 31 acres of an approximately 39-acre parcel (APN 3278-025-001). The parcel is located east of the community of Neenach in unincorporated Los Angeles County and is primarily undeveloped open space, apart from a residence in the southwestern corner of the parcel. RPCA Solar 12, LLC has entered into a long-term lease agreement with the property owners, Amilcar Ruben Badano and Debbie Badano, to facilitate the development and long-term operation of the Project.

The Project will generate a total of up to 4.99 megawatts (MW) alternating current (AC) (7.5 MW direct current [DC]) of clean, reliable solar energy when complete. The Project will interconnect to Southern California Edison's (SCE) pre-existing electrical distribution system located adjacent to the site. The power generated from this facility will be sold to SCE through a long-term Power Purchase Agreement (PPA). Additionally, the Project will be equipped with energy storage technology that will allow onsite renewable energy generation to be stored and dispatched onto the grid when needed.

The Project will utilize approximately 13,851 solar modules and 40 string inverters to convert the sun's energy into usable, AC power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers 8-12 feet below the ground surface. The overall height of the array will be no more than 15-feet tall. The Project is designed to comply with the development standards of the Los Angeles County Renewable Energy Ordinance, discussed in Section 2.3 below.

1.2 OBJECTIVES

The purpose of this analysis is to evaluate the Project Area to assess the potential for special-status plant and wildlife species and sensitive natural communities to occur, and the potential effects to these biological resources due to construction and operation of the Project. This assessment provides the methods and results of the field survey, including vegetation communities and land cover types present within the Project Area, special-status plant and wildlife species detected or with potential to occur within the Project Area, the presence of wildlife movement corridors or federally designated Critical Habitat within or adjacent to the Project Area, and any additional focused surveys necessary to further evaluate potential effects to biological resources that could occur within the Project Area. Recommendations to avoid and minimize impacts to these resources are provided in Section 5 of this document.

1.3 PROJECT LOCATION

The approximately 31-acre Project Area is located 0.25 mile north of California State Route 138, and on the east side of 230th Street West (Figure 2). The Project Area is situated at an elevation of approximately 2,820 feet above mean sea level and adjacent land uses in the vicinity of the Project Area are primarily undeveloped, although some rural residences occur sporadically in the Project vicinity, and there are several small to large-scale solar installations north and east of the Project Area.

The Project Area is situated within Township 20 North, Range 16 West, Section 13 of the Neenach School 7.5-minute U.S. Geological Survey (USGS) quadrangles. The corresponding latitude and longitude at the approximate center of the site is 34°46'48.87" north latitude and 118°32'04.69" west longitude.

2 REGULATORY SETTING

2.1 FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) prohibits the taking, possession, sale, or transport of endangered species. Pursuant to the requirements of FESA, a federal agency reviewing a proposed action within its jurisdiction must determine whether any federally listed threatened or endangered species could be present and determine the extent of effects to such species due to the proposed action. In addition, federal agencies are required to determine whether a proposed action is likely to jeopardize the continued existence of any species listed or proposed to be listed under FESA, or result in the destruction or adverse modification of critical habitat designated for such species (16 U.S. Code [USC] 1536[3], [4]). Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain authorization from the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

Federal Clean Water Act

Section 404

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (ACOE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The ACOE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

Section 401

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the authority to either grant certification or waive the

requirement for permits is delegated by the SWRCB to the nine regional boards. The Regional Water Quality Control Board (RWQCB) has authority for Section 401 compliance in the Project Area. A request for certification is submitted to the regional board at the same time that an application is filed with the ACOE.

2.2 STATE

California Endangered Species Act (CESA)

Under the CESA, the California Fish and Wildlife Commission (CFWC) has the responsibility of maintaining a list of threatened species and endangered species. The California Department of Fish and Wildlife (CDFW) also maintains lists of species of special concern. A Species of Special Concern (SSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally listed, but not State-listed, as threatened or endangered;
- meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

CESA prohibits the take of state-listed animals and plants in most cases, but CDFW may issue incidental take permits under special conditions. Pursuant to the requirements of CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present on the property and determine whether the project would have a potentially significant impact on such species.

California Fish and Game Code Sections 3503, 3511, 3513, 4150

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3511 states fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act. All nongame mammals, including bats, are protected by California Fish and Game Code 4150.

California Fish and Game Code Sections 1600-1616

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "… bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit ..." (Section 1601). In practice, the CDFW usually

marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

CDFW Wetlands Protection Regulations

CDFW derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the California Fish and Game Code (CFGC; lake and streambed alteration agreements), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on ACOE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and each RWQCB as the principal state agencies responsible for the protection of water quality in California. As noted above, the RWQCB has regulatory authority over the Project Area. The Porter-Cologne Water Quality Control Act provides that, "All discharges of waste into the waters of the State are privileges, not rights." Waters of the State are defined in Section 13050(e) of the Porter-Cologne Water Quality Control Act as "…any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. As noted above, the RWQCB is the appointed authority for Section 401 compliance in the Project Area.

California Environmental Quality Act

Although threatened and endangered species are protected by specific federal and state statutes, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals and allows a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species." Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

2.3 LOCAL

Los Angeles County General Plan

Chapter 9 of the Los Angeles County General Plan (Plan) discusses the Conservation and Natural Resource Element of the Plan with the goal of guiding the long-term conservation of natural resources and preservation of available open space areas. Section 3 discusses Biological Resources, which include regional habitat linkages, forests, coastal zones, riparian habitats, streambeds and wetlands, woodlands, chaparral, desert shrubland, alpine habitats, Significant Ecological Areas (SEAs), and Coastal Resource Areas (CRAs). The General Plan works to protect and enhance these resources and ensure that the legacy of the unique biotic diversity is passed on to future generations (LACGP 2022).

Los Angeles County Code Title 22 Planning and Zoning – Renewable Energy Ordinance

Section 22.140.510 of the Los Angeles County Code establishes standards, conditions, and procedures that facilitate renewable energy systems, including utility-scale solar energy facilities such as the Project, in a manner that is intended to protect public health, safety, and welfare, and minimizes significant impacts to the environment. Subsection Section 22.140.510(E)(3) establishes development standards for utility-scale solar energy facilities, including requirements for fencing, height, setbacks, standards for facilities on significant ridgelines, and landscaped buffers. To approve a Conditional Use Permit for a ground-mounted utility-scale solar energy facility, the County must make findings relating to biological resources (in addition to other specified findings), including:

- The project is sited and designed and will be constructed in such a way to minimize significant impacts to the environment, including impacts to birds and bats, through appropriate measures including minimizing proximity to perch sites such as transmission lines and towers;
- The project is sited in such a way to minimize site disturbance, such as grading, brush clearance, and other forms of earthwork;
- The proposed vegetation sufficiently provides ground cover to the satisfaction of a County biologist; and
- The proposed vegetation sufficiently provides such buffer and ground cover in a timely manner to the satisfaction of a County biologist.

(Section 20.140.510(E)(5)). The ordinance also requires compliance with specific conditions of approval that are relevant to protection of biological resources, including measures that address landscaping, soil erosion, hydrology, grading, vegetation removal, and water quality protection. (Section 20.140.510(E)(6)).

Antelope Valley Area Plan

The Antelope Valley Area Plan (Area Plan) is a component of the Los Angeles County General Plan. The purpose of the Area Plan is to achieve the community's shared vision of the future through the development of

specific goals, policies, land use and zoning maps, and other planning instruments. As a component of the Los Angeles County General Plan, the Antelope Valley Area Plan refines the countywide goals and policies in the General Plan by addressing specific issues relevant to the Antelope Valley, such as community maintenance and appearance, and provides more specific guidance on elements already found in the General Plan. The General Plan provides guidance on all issues not covered in the Area Plan. Through the planning and visioning process, the County identified issues of Valley wide significance that, it determined, were best addressed in a comprehensive and coordinated manner. In anticipation of future growth, the planning effort focused on ways to manage this growth and addressed the need for balance on the following issues:

1. Preservation and enhancement of each unique town's rural character, allowing for continued growth and development without compromising the rural lifestyle;

2. Preservation of open space around existing towns, in order to preserve hillside areas and significant ridgelines, conserve biological resources, provide opportunities for recreation, and make more efficient use of existing infrastructure in the core areas;

3. Planning for integrated circulation systems, including bikeways, walkways, and multi-purpose trails;

4. Conservation of significant resources, including agricultural lands, mineral resources, water supply, and scenic areas;

5. Preservation of public health, safety, and welfare, through identification of natural and environmental hazards, including noise, seismic, fire, and airborne emissions, and designation of land uses in an appropriate manner to mitigate these impacts; and

6. Coordination on enhancing public and community services such as law enforcement, fire protection, and parks

The Conservation and Open Space Element provides Goals and Policies to protect the Antelope Valley's environmentally significant undisturbed natural spaces, make use of natural resources, and provide open space areas for recreation and enjoyment. This Element identifies the resources and open spaces which may be developed, and gives guidance as to how sustainable development can be conducted in the future. In addition, this Element identifies areas which ought to be preserved from development, or are unsuitable for development due to hazards.

3 METHODS

3.1 DESKTOP REVIEW

Special-status plant and wildlife species present or potentially present within or adjacent to the Project Area were initially identified through a desktop literature review using the following sources: USFWS Information for Planning and Consultation (IPaC) Trust Resource Report (USFWS 2024a); CDFW California Natural Diversity Database (CNDDB) (CDFW 2024a); the Los Angeles County Sensitive Bird Species List (Part I; Los Angeles Audubon 2009) and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants (CNPS 2024). Additionally, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil

Survey (WSS) was queried to determine soil types that exist within the boundary of the Project Area (USDA 2023), along with the California Essential Habitat Connectivity Project (CDFW 2023b), and the USFWS National Wetland Inventory (USFWS 2023b) Wetland Mapper tool. The CNDDB and CNPS database searches included the 7.5-minute USGS Neenach School quadrangle and eight surrounding quadrangles. The IPaC search included the Project Area and a two-mile buffer surrounding the Project Area. Following a review of these resources, Kleinfelder also reviewed relevant life history information on those species documented as occurring in the region, including habitat type, soils, and elevation preferences.

The Los Angeles County Sensitive Bird Species List (SBSL) has not been updated since 2009; therefore, the current status and distribution of these species is unknown. However, species listed in Part I of the SBSL that may occur in the habitats present in the Project Area were evaluated and included in the analysis by request of the LA County Planning Department. These species are not listed under the federal or state Endangered Species Acts nor are they listed as California species of special concern or fully protected species, rather they are considered species that are locally important in LA County and are protected under the federal MBTA and Section 3503.5 of the CFGC.

3.2 DEFINITION OF SPECIAL-STATUS SPECIES

Special-status plant and wildlife species with state and/or federal protections as described under FESA or CESA in Section 2 above are specifically defined below.

3.2.1 SPECIAL-STATUS WILDLIFE SPECIES

Special-status wildlife species include taxa designated as follows:

- Threatened, endangered, or candidate for listing under the FESA;
- Threatened, endangered, or rare under the CESA;
- CDFW species of special concern or fully protected species;
- Additionally, desert kit fox (*Vulpes macrotis arsipus*) may not be taken at any time under Title 14, Section 460 of the California Code of Regulations.

3.2.2 SPECIAL-STATUS PLANT SPECIES

Special-status plant species include taxa designated as follows:

- Threatened, endangered, or candidate for listing under the FESA;
- Threatened, endangered, or rare under the CESA;
- Species with California Rare Plant Ranks (CRPRs) as described below (CNPS 2024):
  - 1A – Plants presumed extinct in California
  - 1B – Plants considered rare, threatened, or endangered in California and elsewhere
  - 2 – Plants considered rare, threatened, or endangered in California, but more common elsewhere
  - 4 – Plants of limited distribution, a watch list

3.3 FIELD SURVEY

A general biological field survey was performed by Kleinfelder biologist Ryan Hilgris on January 17, 2023, to evaluate botanical and wildlife resources within the Project and buffer area, including habitat suitability for special-status species.

The survey consisted of walking throughout the Project Area to map and characterize vegetation communities and land cover types, collect data on the relative quality of, and potential for existing habitats to support the special-status species identified during the preliminary database and resources review discussed previously, and to identify any other sensitive biological resources present or potentially present within the site. An aerial photograph (Google Earth 2023) and georeferenced mobile map with an overlay of the survey area boundary was utilized to map vegetation communities and record any special-status or sensitive biological resources while in the field. Protocol-level surveys for special-status plant and wildlife species were not conducted during this time. However, any incidental observations of such species were documented during the field survey. The buffer area was scanned with and without binoculars to distinguish any obvious differences between the Project Area and adjacent habitat.

Kleinfelder conducted a constraints-level analysis for potentially jurisdictional wetlands and waters based on current and historic aerial photography signatures and field observations. The analysis was based on criteria provided by the following agencies:

- Waters of the U.S., including wetlands, under the jurisdiction of the ACOE, pursuant to Section 404 of the CWA.
- Wetlands and Waters of the State under the jurisdiction of the Regional Water Quality Control Board, pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act).
- Rivers, streams, or lakes under the jurisdiction of CDFW, pursuant to Section 1602 of the CFGC.

4 RESULTS

4.1 BIOLOGICAL SETTING

The biological setting surrounding the Project Area is primarily undeveloped desert habitat in relatively close proximity to some rural residences and solar development in the vicinity of the Project Area. Results of the field survey are described in detail below.

4.2 EXISTING HABITATS

4.2.1 SOILS

According to the NRCS (USDA 2023), one soil type, Greenfield sandy loam, 2 to 9 percent slopes, has been mapped within the Project Area. Greenfield sandy loam is a well-drained soil found on alluvial fans and terraces, derived from granite.

4.2.2 VEGETATION COMMUNITIES

Using the classifications described in *A Manual of California Vegetation* (MCV; Sawyer Keeler-Wolf 2009), two vegetation communities, rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) and inactive agriculture/ruderal, were mapped during the field survey (Figure 3).

***Ericameria nauseosa* Shrubland Alliance (rubber rabbitbrush scrub) (15.71 acres).** In intact natural stands of this vegetation type, rubber rabbitbrush is dominant or co-dominant in this vegetation community and may coexist with big sagebrush (*Artemisia tridentata*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), *Ephedra* spp., California buckwheat (*Eriogonum fasciculatum*), California broomsage (*Lepidospartum squamatum*) and bitterbrush (*Purshia tridentata*). In the Project Area, rubber rabbitbrush was the dominant shrub and appeared dense in most of the community as a whole, while patchy on the margins where it seemed to have recently recolonized portions of the site after agricultural use was discontinued. Other characteristic native shrub species were lacking in this area (Figure 3).

Inactive Agriculture/Ruderal (no MCV classification) (15.29 acres). The Project Area was in active agriculture until approximately 2011 or 2012 and appears to have remained fallow since then. As such, weedy species like *Erodium* sp., *Plantago* sp. and mustard (*Brassica* sp.) have colonized the site (Figure 3, Figure 4). Some annual grasses were also observed during the field survey, although they were not identifiable due to the time of year the survey was performed. Several small mammal burrows were scattered throughout this vegetation community; however, most were 2-3 inches in diameter and therefore suggest use by rodents such as pocket gophers (*Thomomys* sp.). Only a handful of burrows were suitably sized to be associated with California ground squirrels, although no ground squirrels were observed during the field survey (*Otospermophilus beecheyi*).

A row of juniper trees was planted along the western boundary of the site sometime between the mid-1980's and mid-1990's (Google Earth 2023). Chapter 9 of the LA County General Plan describes juniper woodland as an important habitat feature that supports multiple wildlife species in a concentrated area (LACGP 2022). However, this row of trees does not fall into the category of juniper woodland as described in the Plan, as it is not a natural aggregation of trees and does not therefore provide the benefits that a true woodland would. This is due to the linear configuration of the trees directly adjacent to a road and the fact that approximately half of the trees were dead at the time the field survey was performed. This row of trees was likely planted to serve as a wind screen for agricultural uses on the subject parcel, and at present provides little habitat value to wildlife. In addition, the Project will be constructed east of the row of junipers, and likely only one to three of the planted trees would need to be removed to support construction of the access road into the Project Area.

Plant species identified during the field survey are included in Table 1 below.

Table 1. Plant Species Observed During the Field Survey

Scientific Name	Common Name
Brassica tournefortii	Sahara mustard
Ericameria nauseosa	rubber rabbitbrush
Erodium sp.	stork's bill
Juniperus sp.	juniper
Plantago sp.	plantain
Pinus halepensis	Aleppo pine

4.3 SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Special-status plant and wildlife species are discussed below in terms of CEQA thresholds of significance. A threshold of significance for a given environmental impact defines the level of effect above which the Lead Agency will normally consider impacts to be significant, and below which it will normally consider impacts to be less than significant. Lead Agencies are responsible for establishing the thresholds of significance for all documents they prepare. They can rely on several sources, including: Appendix G of the State CEQA Guidelines; CEQA's mandatory findings of significance (State CEQA Guidelines § 15065); thresholds established by regulatory agencies; thresholds provided in General Plans or other local planning documents; or thresholds established by other agencies (CEQA 2020).

A list of special-status wildlife species with potential to occur in the vicinity of the Project Area is included in Appendix A, and a list of special-status plant species with potential to occur in the vicinity of the Project Area is included in Appendix B. Together, Appendix A and Appendix B, and specifically the column evaluating the "Potential to Occur within the Project Area" can be used by the Lead Agency to assess whether the construction and operation of the proposed project may have a potentially significant impact on biological resources. Definitions regarding potential for species occurrence for this assessment are as follows:

- Not expected to occur – Habitat within and adjacent to the Project Area is lacking for the species' life history requirements (foraging, breeding, cover, range, elevation, hydrology, vegetation community, site history, and/or disturbance regime). There are no documented occurrences of the species in the larger vicinity of the Project Area.
- Low – Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of poor quality. Because of this, the species is highly unlikely to be found within the Project Area. Any documented occurrences of the species are likely further than possible for the species to disperse to the site, the date of the occurrence is several decades old, or the vicinity of the Project Area has been developed in a manner that likely precludes the species from presently occurring.
- Moderate – Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. There are recently documented occurrences in the near vicinity of the Project Area; therefore, the species has a moderate probability of utilizing the site.
- High – All of the habitat components meeting the species requirements are present, and/or most of the habitat on or adjacent to the Project Area is highly suitable. There are documented occurrences of the species on or immediately adjacent to the Project Area; therefore, the species has a high probability of utilizing the Project Area.
- Present – Species was observed within the Project Area during field surveys or has been recorded (i.e., CNDDB, or other source) within the Project Area recently.

Based on these definitions, there would be no impact or less than significant impacts to species that are not expected to occur or that have a low potential to occur in the Project Area. As such, these species are removed from further consideration and recommendations to avoid impacts to these species are not included in Section 5 of this document. Species with a moderate or greater potential to occur are discussed in Sections 4.3.1 and 4.3.2 below, and recommendations to avoid and minimize impacts to these species are provided in Section 5 of this document.

4.3.1 SPECIAL-STATUS WILDLIFE SPECIES

Results of the CNDDB and IPaC searches returned 25 special-status wildlife species known to occur within the two-mile/nine quad search radius of the Project area (CDFW 2024a; USFWS 2024a). Of these, four have a moderate potential to occur. The remaining 21 special-status wildlife species are not expected to occur or have a low potential to occur within the Project area due to a lack of suitable habitat, or the site is outside of the species' known range. As such, these 21 species were removed from further consideration. The four species with a moderate potential to occur are described in more detail below.

Burrowing owl utilizes abandoned ground squirrel and sometimes mesocarnivore burrows in open habitats, grasslands, and disturbed areas with short, sparse vegetation, typically on levees, mounds, or areas where there are unobstructed views of possible predators such as raptors or foxes. Prey items include insects, small mammals, reptiles and amphibians. There is suitable habitat for this species within the inactive/ruderal portions of the Project Area, as the lower density of vegetation allows for unobstructed views of possible predators, and the few ground squirrel burrows observed on the site may support burrowing owl; however, this species is not likely to occur in the dense rabbitbrush scrub on the site as these areas would obstruct views of possible predators. There is a cluster of three occurrences of burrowing owl approximately 1.5 miles northeast of the Project Area from 2010; however, no burrowing owls or sign of burrowing owl (e.g., whitewash, feathers, pellets) were observed on the site during the field survey. Protocol surveys were not completed during the general biological field survey.

Loggerhead shrike is a year-round resident in most areas of California that contain grasslands, open areas, orchards, and areas with scattered trees. It feeds on small vertebrates and invertebrates and impales prey on thorns or barbed wire. There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site. LA County noted an anecdotal observation of this species during a site visit in July 2024.

Mountain plover occurs in flat open plains, not mountains. Of all the shorebirds, mountain plover is the most disconnected from the shore, generally living miles from water in areas of very short grass, including semi-arid plains, grasslands, and plateaus. In some areas, it nests mainly on bare ground found in large prairie-dog towns. Winter habitats include desert flats and plowed fields. There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site.

Swainson's hawk spends the breeding season in the Central Valley of California and is commonly found in agricultural areas or open grasslands containing solitary trees for nesting. Its diet consists of insects, small mammals and reptiles. There is suitable foraging habitat for this species within and adjacent to the Project Area; however, suitable nest trees for this species are sparse in the vicinity of the Project area. There is one recently documented (2020) occurrence of this species approximately two miles northeast of the site; however, the majority of documented occurrences of this species are clustered around the valley surrounding Lancaster and Palmdale 20 miles east of the Project Area. There are no documented occurrences of this species within 20 miles north, south, or west of the Project Area.

LA County Special Bird Species List

An additional seven bird species listed on Part I of the LA County SBSL have a moderate potential to occur, including ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides)*, prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), turkey vulture (*Cathartes aura*), and

western meadowlark (*Sturnella neglecta*). These species are not listed under the federal or state Endangered Species Acts nor are they listed as California species of special concern or fully protected species, rather they are protected under the federal MBTA and Section 3503.5 of the CFGC.

Species With a Low Potential to Occur

There are two species with a low potential to occur on the site that the County specifically asked to be addressed in this assessment. There is low-quality habitat for American badger (*Taxidea taxus*), a California species of special concern, and desert kit fox in the Project Area. No burrows of suitable size to support these species were observed during the field survey. There are only two documented occurrences of American badger within eight miles of the Project Area; one has no date or owner information, and the other is from 1906. Occurrence records for desert kit fox are not kept by the CNDDB or IPaC, as this species is not listed under FESA or CESA; however, desert kit fox is protected by Title 14, Section 460 of the California Code of Regulations (furbearing mammals); therefore, preconstruction surveys are included in the recommendations section of this document to ensure compliance with the Code.

A list of special-status wildlife species with potential to occur in the vicinity of the Project Area is included in Appendix A.

4.3.2 Special-Status Plant Species

Results of the IPaC, CNDDB, and CNPS searches identified 44 special-status plant species known to occur within the two-mile/nine quad search radius of the Project area (CNPS 2023). None of these 44 species are expected to occur within the Project Area due to a lack of suitable habitat, history of agricultural site disturbance, or the site is outside of the species' known range. As such, these 44 species were removed from further consideration and are not discussed further in this document.

A list of plant species with potential to occur in the vicinity of the Project Area is included in Appendix B.

4.4 Critical Habitat

Critical habitat is a term defined and used in the federal Endangered Species Act to specify geographic areas that contain features essential to the conservation of an endangered or threatened species, and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery.

The Project Area is not within critical habitat limits for any federally listed wildlife or plant species; however, critical habitat for California condor (*Gymnogyps californianus*) has been mapped approximately eleven miles north of the Project Area.

4.5 Potentially Jurisdictional Aquatic Resources

The NWI depicts an intermittent riverine feature that is mapped outside of the northwest corner of the Project Area; however, no wetland indicators (e.g., visible OHWM, bed and bank, soil surface cracks, hydrology, or hydrophytic vegetation) were observed in the vicinity of this feature or in any other part of the Project Area during the field survey,

which was performed during the wet season. This feature is likely no longer present due to modification of the landscape during the last several decades of agricultural practices.

4.6 WILDLIFE CORRIDORS AND HABITAT LINKAGES

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping-stones for wildlife dispersal.

The Project Area is not recognized as an important wildlife corridor by any regional or state agency or jurisdiction and is not considered critical to the ecological functioning of adjoining open space areas (CDFW 2023b). It likely supports local movement patterns and provides food and cover resources for common wildlife species. Temporary effects due to noise and increased human activity during project activities would not interfere with these local movement patterns over time or affect the ability of these species to forage or reproduce.

The eight-foot perimeter fence would be installed at the onset of construction to establish the outer boundaries of the Project Site. Site preparation would consist of clearing the existing vegetation in those areas on the Project Site where construction would be undertaken, grading, and establishing temporary staging area (including stockpile and laydown areas) as necessary. Selected vegetation would be removed to accommodate the construction of the array and its appurtenances, as well as to prevent shading on the array during operation. Any vegetation taller than two feet (e.g., the height of the solar modules above grade) or expected to exceed two feet in height would be removed. Grass and groundcover may remain between rows and under the solar modules. All cleared vegetation would be chipped or spread on-site or disposed of responsibly.

4.7 COMMON WILDLIFE SPECIES

Several common wildlife species or their sign were observed during the field survey, including white-crowned sparrow (*Zonotrichia leucophrys*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mountain bluebird (*Sialia currucoides*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*). Small mammal burrows were present throughout the site. Common wildlife species adapted to life in proximity to human activity like coyotes (*Canis latrans*) are likely to move through the Project Area on a regular basis to find food and cover. Several common native and non-native bird species are likely to use the Project Area and adjacent habitat for nesting and/or foraging (Figure 4).

5 RECOMMENDATIONS

This section addresses potential constraints to approval of the proposed Project due to the presence of sensitive biological resources and potential impacts to those resources that could result from Project activities. Recommendations to address potential biological resource constraints are described below.

BIO-1: Preconstruction Nesting Bird Survey. All native birds in California are protected by the federal MBTA, and Section 3503.5 of the CFGC specifically protects raptors. Ground disturbance**,** noise, or removal of vegetation that would result in destruction of active bird nests or disruption of breeding/nesting activity could be a violation of the MBTA and the CFGC as well as a significant impact under CEQA.

Kleinfelder recommends a nesting bird survey be performed by a qualified biologist approved by LA County no earlier than two weeks prior to any construction during the nesting season (February 1 – August 31) to determine if any native birds are nesting on or near the site (including a 250-foot buffer for raptors and a 0.25-mile buffer for SWHA, where accessible). If any active nests are observed during surveys, a suitable avoidance buffer from the nests should be determined by the qualified biologist based on species, location, and extent and type of planned construction activity. These nests would be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. Kleinfelder also recommends removing any suitable nesting habitat (i.e., trees and vegetation) outside of the bird breeding season to avoid impacts to nesting birds. A memo will be prepared at the conclusion of surveys to be submitted to LA County. The memo will include graphics and figures as necessary to support the results of the survey.

BIO-2: Trash Receptacles. Impacts to special-status species due to increased presence of predators associated with construction activities could be considered a significant impact in the context of CEQA. All trash and waste items generated by construction or crew activities should be properly contained in a covered and locked trash receptacle and/or removed from the Project site daily. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species

BIO-3: Common and Special-Status Wildlife Awareness. All Project personnel will visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during construction, all excavated holes, ditches, or trenches greater than six (6) inches deep will be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps will be placed in excavations. After opening and before filling, such holes, ditches, and trenches will be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) will not contain monofilament netting.

All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire will be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.

BIO-4: Worker Environmental Awareness Training. A qualified biologist will conduct an environmental education program, approved by LA County, for all persons working on the Project prior to the onset of construction. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered will be included in the training. Special-status species, including legal protection, penalties for violations, and Project-specific protective measures will also be discussed. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training will be maintained at the worksite with the Project supervisor, and a handout containing this information will be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective measures.

BIO-5: Desert Kit Fox and American Badger. During protocol-level burrowing owl surveys and within 72 hours prior to the onset of construction, a survey will be performed by a qualified biologist to determine the presence of potential desert kit fox and American badger burrows. If any suitable burrows are detected, remote camera stations will be set up for a period of three nights to determine occupancy. If the burrows are occupied by American badger or desert kit fox, avoidance buffers of 50 feet would be implemented until the burrows are no longer occupied, as determined by the qualified biologist. If no suitable burrows are detected, or no American badgers or desert kit foxes are detected during remote camera monitoring, no further mitigation would be required.

BIO 6: Burrowing Owl Avoidance. A qualified biologist should conduct surveys following the California Burrowing Owl Consortium's (CBOC) *Burrowing Owl Survey Protocol and Mitigation Guidelines* (CBOC 1993) and the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) during the survey season immediately prior to construction to assess the presence of burrowing owl on or adjacent to the site. Should an active burrowing owl nest be detected, no-disturbance buffers should be implemented prior to and during any ground-disturbing activities, as outlined in the *"Staff Report on Burrowing Owl Mitigation"* (CDFG 2012). Impacts to occupied nest burrows should be avoided in accordance with the following table unless a qualified biologist verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. In that case, construction activities would be allowed to continue upon verification that owls are not utilizing the burrow at the time of ground disturbance.

Location	Time of Year	Level of Disturbance		
		Low	Medium	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

6 REFERENCES CITED

16 U.S.C. 703–712. Migratory Bird Treaty Act, as amended.

California Department of Fish and Wildlife (CDFW). 2024a. California Natural Diversity Database (CNDDB). Rarefind, Version 5 (Commercial Subscription). 2023. Accessed August 2024. Sacramento, California. https://map.dfg.ca.gov/rarefind/Login.aspx?ReturnUrl=%2frarefind%2fview%2fRareFind.aspx.

California Department of Fish and Wildlife (CDFW). 2023b. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. California Department of Fish and Wildlife Biogeographic Information and Observation System (BIOS 5) Data Viewer User Guide, Version 5 (Commercial Subscription). Accessed January 2023. Sacramento, California. Website https:// https://apps.wildlife.ca.gov/bios/?bookmark=648

California Native Plant Society (CNPS), Rare Plant Program. 2024. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [Accessed August 2024].

Google Earth V 7.3.6.9345 (64-bit). 2023. Grass Valley, California. 34°46'48.87" N and 118°32'04.69" W. Eye alt 5,200 feet. Accessed January 2023. Digital Globe 2023. http://www.earth.google.com.

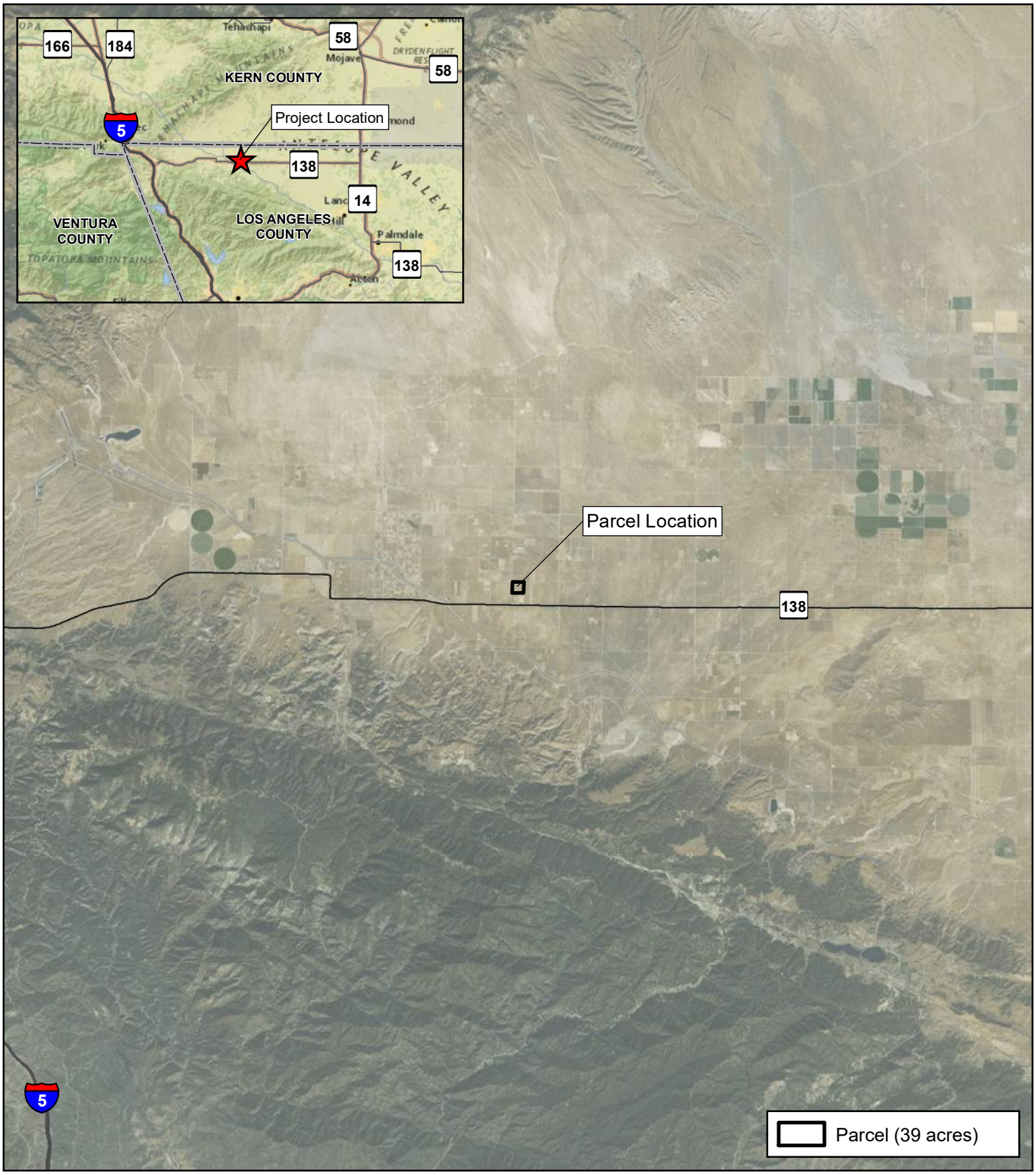
Los Angeles County General Plan (LACGP). 2022 (2035 update). Los Angeles County Planning Department. Updated July 14, 2022.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*, Second Edition. California Native Plant Society, Sacramento. 1300 pp.

U.S. Department of Agriculture (USDA). 2023. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed January 2023. http://websoilsurvey.sc.egov.usda.gov/ App/HomePage.htm.

U.S. Fish and Wildlife Service (USFWS). 2023a. Information for Planning and Consultation (IPaC). Accessed August 2024. https://ecos.fws.gov/ipac/.

U.S. Fish and Wildlife Service (USFWS). 2023b. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Accessed January 2023.





0 1.5 3 Miles

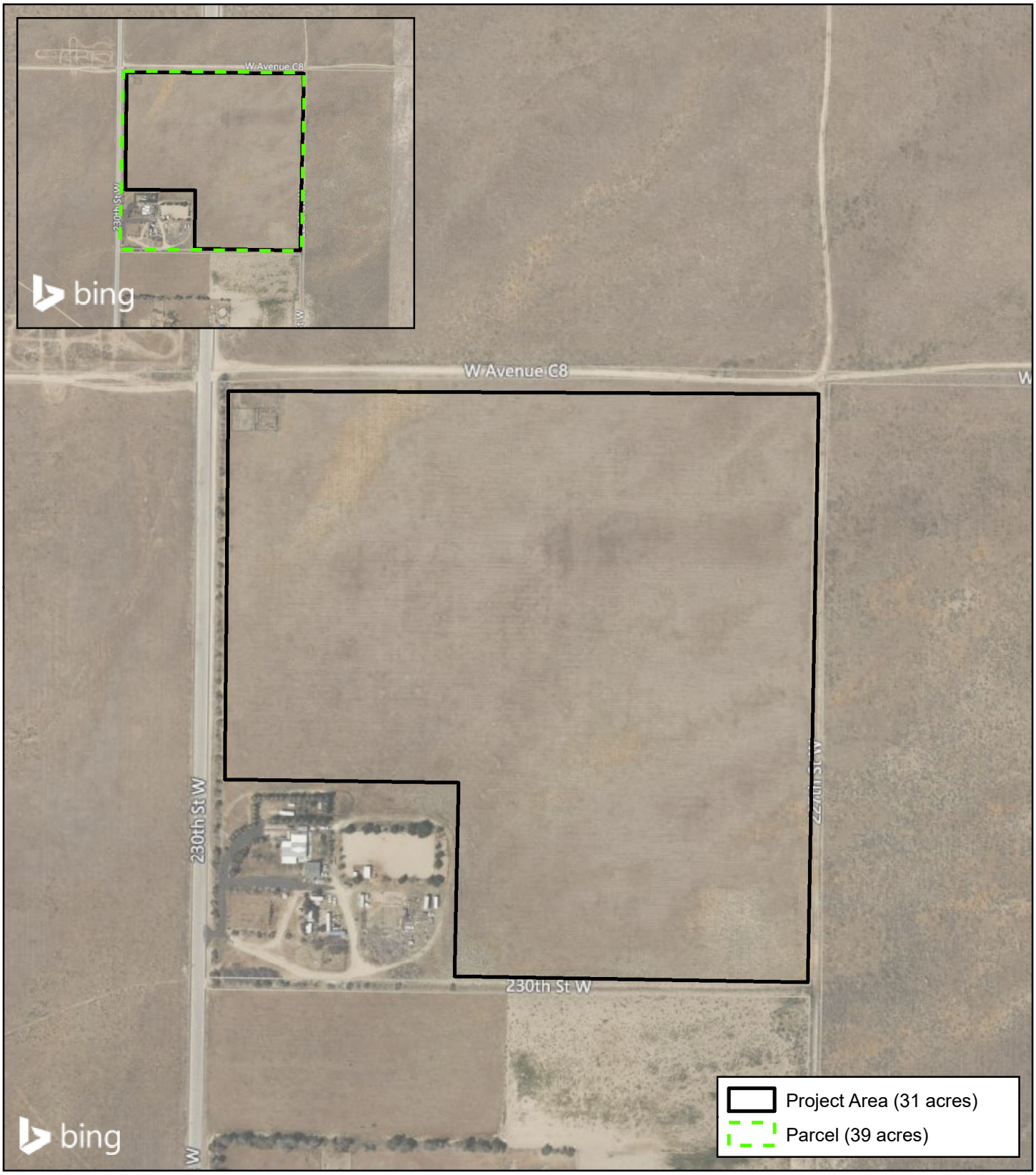
0 2.5 5 Kilometers

N

Scale 1:190,080
1 in = 3 miles

Figure 1. Regional Vicinity
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.





Source: Bing Maps

0 150 300 Feet

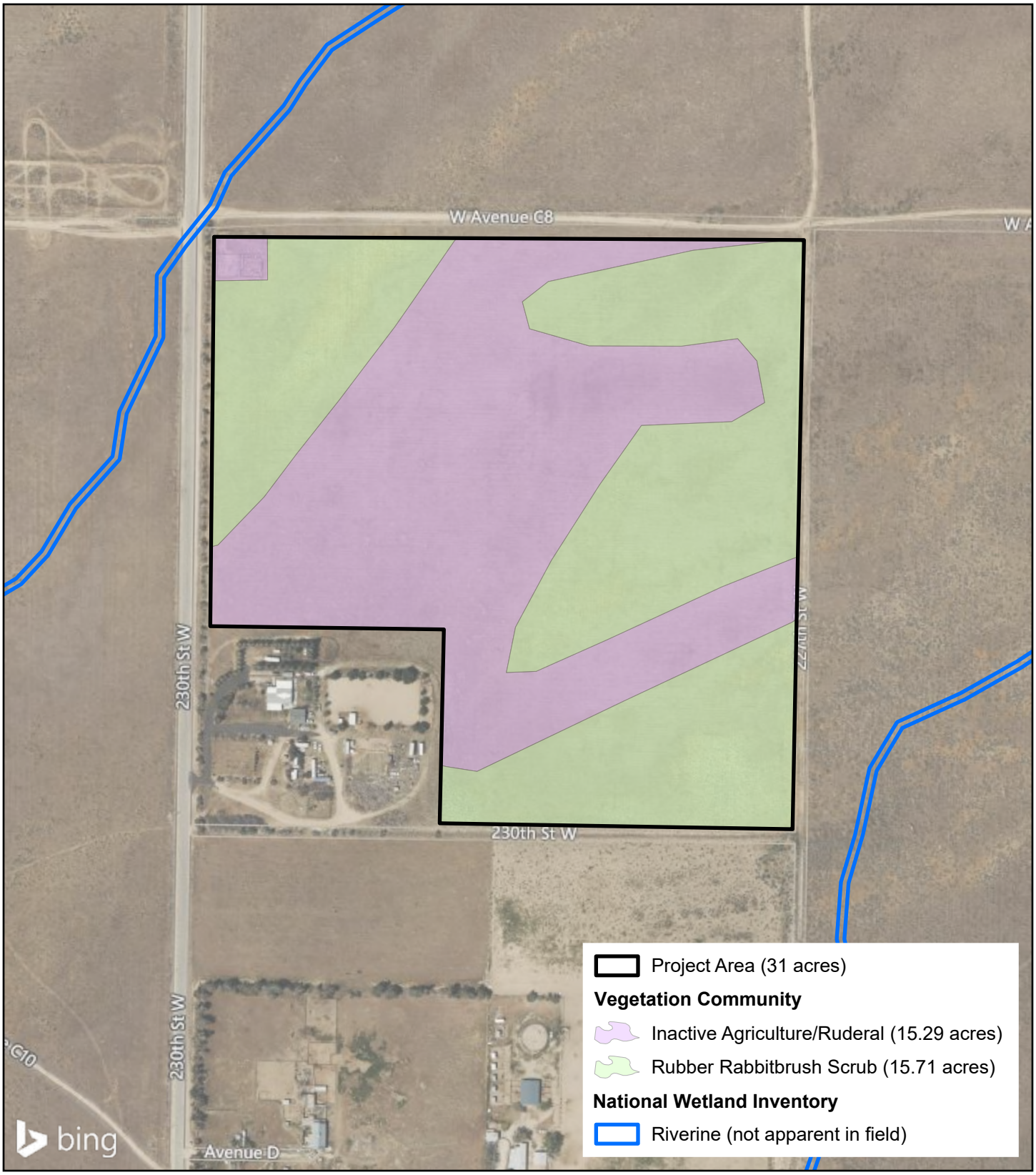
0 45 90 Meters

N

Scale 1:3,600
1 in = 300 feet

Figure 2. Project Area
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.





Source: Bing Maps

0 150 300 Feet

0 45 90 Meters

N

Scale 1:3,600
1 in = 300 feet

Figure 3. Vegetation Communities and NWI Mapped Features
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.



Photo 1: Example of California ground squirrel burrows in the project area.



Photo 2: Looking north across the project area from the residence in the southwest corner of the parcel.



Photo 3: Looking northwest through the project area from the southeast corner.



Figure 4. Photos Page 1 of 3
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

Created By: jkiatt Document Path: G:\Renewable_Properties\2023\4230_RCPA_230th_street\Figure4_1_230thStreet_Photos.mxd



Photo 4: Looking south along the western boundary of the project area from the northwestern corner.



Photo 5: Looking south through the center of the site from the northern boundary.



Photo 6: Looking southeast at the project area from 230th Street.



Figure 4. Photos Page 2 of 3
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

Created By: jkiatt Document Path: G:\Renewable_Properties\2023\4230_RCPA_230th_street\Figure4_2_230thStreet_Photos.mxd



Photo 7: Looking southwest through the project area from the northeast corner.



Photo 8: Looking west through the center of the site from the eastern boundary.

Created By: JHiatt Document Path: C:\Renewable_Properties\2023\4230_RCPA_230th_street\Figure4_3_230thStreet_Photos.mxd



Figure 4. Photos Page 3 of 3
RPCA 230th Street Solar Project
Biological Resources Assessment
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
Invertebrates				
monarch – California overwintering population	*Danaus plexippus* (pop. 1)	Candidate Threatened/None	Monarch adults make massive, multi-generation migrations from August-October, flying south thousands of miles to hibernate along the California coast and in central Mexico. Monarchs stop to feed on flower nectar and to roost together at night. During warm winter days, the butterflies may take moisture and flower nectar. Most mating happens before they journey north in the spring, when females lay single eggs along the way under host plant leaves (*Asclepias* sp.); caterpillars eat flowers and leaves. Overwintering sites along the California coast are important for conservation of this species.	**Low potential to occur.** Suitable host plants for this species were not observed within or adjacent to the Project Area, and there are no known winter roosts in the vicinity of the Project Area.
crotch bumblebee	*Bombus crotchii*	None/Candidate Endangered	Crotch bumble bee was historically common throughout much of the southern two-thirds of California, but now appears to be absent from most of the state. Most bumble bees are primitively eusocial insects that live in colonies composed of a queen, workers, and, near the end of the season, reproductive members of the colony (new queens, or gynes, and males). Habitat requirements include availability of suitable colony nesting sites, floral resources to obtain nectar and pollen throughout the duration of the colony period (spring, summer and fall), and suitable overwintering sites for queens.	**Low potential to occur.** Low quality habitat for this species is present within and adjacent to the Project Area.
Amphibians and Reptiles				
California legless lizard	*Anniella pulchra*	None/SSC	The California legless lizard is common in the Coast Ranges from Contra Costa County south to the Mexican border, but only occurs sporadically throughout the rest of its range, which includes the San Joaquin Valley to the west slope of the southern Sierra, the Tehachapi Mountains west of the desert and in the mountains of southern California. California legless lizard is a burrowing species associated with sandy or loose loamy soils and it lives mostly underground. The California legless lizard also needs moisture to survive, so it favors moist, warm, loose soil with some plant cover.	**Low potential to occur.** Although there is some low-quality habitat for this species within and adjacent to the Project Area, the nearest documented occurrence is over 12 miles east of the site.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
coast horned lizard	*Phrynosoma blainvillii*	None/SSC	Coast horned lizard inhabits open areas with sandy soils and low vegetation in valleys, foothills and semiarid mountains. It is found in grasslands, coniferous forests, woodlands, and chaparral with open areas and patches of loose soil, often in lowlands along sandy washes with scattered shrubs and along dirt roads. Commonly observed near ant hills feeding on ants.	**Low potential to occur.** Although there is some low-quality habitat for this species within and adjacent to the Project Area, the nearest current documented occurrence is over 10 miles southeast of the site.
coastal whiptail	*Aspidoscelis tigris stejnegeri*	None/SSC	This subspecies is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. Coastal whiptail occurs in a variety of ecosystems, primarily in hot and dry open areas with sparse foliage, including chaparral, woodland, and riparian areas.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
desert tortoise	*Gopherus agassizii*	Threatened/ Threatened	Desert tortoise occurs in arid and semi-arid habitats in the Mojave and Sonoran Deserts, including sandy or gravelly locations along riverbanks, washes, sandy dunes, canyon bottoms, desert oases, rocky hillsides, creosote flats and hillsides. It spends most of its life in underground burrows dug to escape the desert heat.	**Low potential to occur.** Although some low-quality habitat for this species is present within and adjacent to the Project Area, the nearest documented occurrence of this species is approximately 50 miles northeast of the site, where USFWS critical habitat has been mapped.
foothill yellow-legged frog – south coast DPS	*Rana boylii* pop.6	None/SSC	Foothill yellow-legged frog frequently inhabits streams and rivers with rocky substrate and open, sunny banks, in forest, chaparral, and woodland habitat. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
southern rubber boa	*Charina umbratica*	None/Threatened	Southern rubber boa inhabits oak-conifer and mixed-conifer forests at elevations between roughly 5,000 to 8,200 feet where rocks and logs or other debris provide shelter. Often found under logs, boards, and other debris, and sometimes on roads at dusk.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Tehachapi slender salamander	*Batrachoseps stebbinsi*	None/Threatened	The Tehachapi slender salamander inhabits north-facing moist canyons and ravines in oak and mixed woodlands in arid to semi-arid locations. Found under rocks, logs, bark, and other debris in moist areas, especially in areas with a lot of leaf-litter, often near talus slopes.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
two-striped gartersnake	*Thamnophis hammondii*	None/SSC	The two-striped gartersnake is among the most aquatic of the gartersnakes. It is generally found near water sources, including pools, creeks, cattle tanks, and other aquatic features, often in rocky areas. This species is commonly associated with oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
western pond turtle	*Emys marmorata*	None/SSC	Western pond turtles use both aquatic and terrestrial habitats. They are found in permanent or nearly permanent rivers, lakes, streams, ponds, wetlands, creeks, reservoirs, agricultural ditches, estuaries, and brackish waters. Western pond turtles prefer areas that provide cover from predators, such as vegetation and algae, as well as basking sites for thermoregulation. Adults tend to favor deeper, slow-moving water, whereas hatchlings search for slow and shallow water that is slightly warmer. Terrestrial habitats are used for wintering and egg-laying and usually consist of burrows in leaves and soil. Western pond turtles are known to nest up to 325 feet from suitable aquatic habitat. They are rarely found at elevations above 4,950 feet.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Birds				
bald eagle	*Haliaeetus leucocephalus*	Delisted, BGEPA/ Endangered, FP	Bald eagles live near large bodies of open water such as lakes, marshes, estuaries, seacoasts and rivers where fish are abundant. They usually nest within one mile of water in tall trees with open branchwork bordering lakes or large rivers.	**Not expected to occur.** No suitable nesting or foraging habitat is present for this species within several miles of the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
burrowing owl	*Athene cunicularia*	None/SSC	Burrowing owl utilizes abandoned ground squirrel burrows in open habitats, grasslands, and disturbed areas, typically on levees, mounds or areas where there are unobstructed views of possible predators such as raptors or foxes. Prey items include insects, small mammals, reptiles and amphibians.	**Moderate potential to occur.** There is suitable habitat for this species within the inactive/ruderal portions of the Project Area, and the few ground squirrel burrows observed on the site may support burrowing owl; however, this species is not likely to occur in the dense rabbitbrush scrub on the site as these areas would obstruct views of possible predators. There is a cluster of three occurrences of burrowing owl approximately 1.5 miles northeast of the Project Area from 2010; however, no burrowing owls or sign of burrowing owl (e.g., whitewash, feathers, pellets) were observed on the site during the field survey.
California condor	*Gymnogyps californianus*	Endangered/ Endangered, FP	California condor nests in rock formations, deep caves, and occasionally in cavities in giant sequoia trees (*Sequoiadendron giganteus*). It forages in relatively open habitats where large animal carcasses can be detected.	**Low potential to occur.** Although this species could potentially forage in the Project Area, the nearest suitable nesting habitat is approximately five miles north and south of the site.
ferruginous hawk	*Buteo regalis*	None/None, LA County Sensitive Bird Species List	Common in the winter in California, ferruginous hawk inhabits plains and prairies. Found during all seasons in very open and dry country, it can be found in dry grassland, sagebrush plains, saltbush and greasewood flats, rangeland, desert. In winter, it can also be found in in agricultural country, including over plowed fields.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.
golden eagle	*Aquila chrysaetos*	BGEPA/FP	Golden eagle is found in open country, including mountains, foothills, and plains. In the west, they are found over prairie, rangeland, or desert. They are very wide-ranging in winter, and more restricted to areas with good nest sites in summer, which consist of cliff ledges or large trees.	**Low potential to occur.** Although this species could potentially forage in the Project Area, the nearest suitable nesting habitat is approximately five miles north and south of the site, and the nearest documented nesting occurrence is approximately 15 miles west of the site.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
greater roadrunner	*Geococcyx californianus*	None/None, LA County Sensitive Bird Species List	Greater roadrunner inhabits deserts and open country with scattered brush. It is most common in the Sonoran Desert and in areas with a mix of open ground and dense low cover. At the limits of its range, it is found in dry grassland, forest edges, and limestone hills with scattered juniper. This species walks and runs on the ground, flying only when necessary.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.
Le Conte's thrasher	*Toxostoma lecontei*	None/SSC	Le Conte's thrasher inhabits low, sandy, open deserts that are home to few other bird species. Over most of their range, saltbush, shadscale, cholla cactus, creosote, yucca, mesquite, and ocotillo are commonly found, but they are usually sparsely distributed in these mostly flat or rolling landscapes. Le Conte's thrashers generally do not inhabit steep-sided canyons, preferring small arroyos, open flats, or dunes. Rainfall and flowing streams are rare in these deserts, and air temperatures are among the highest recorded on earth.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
loggerhead shrike	*Lanius ludovicianus*	None/SSC	Loggerhead shrike is a year-round resident in most areas of California that contain grasslands, open areas, orchards, and areas with scattered trees. It feeds on small vertebrates and invertebrates and impales prey on thorns or barbed wire.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site. LA County noted an anecdotal observation of this species during a site visit in July 2024.
long-eared owl (wintering)	*Asio otus*	None/SSC, LA County Sensitive Bird Species List	Long-eared owl resides in woodlands and conifer groves that contain dense trees for nesting and roosting, and open country for hunting. It generally avoids unbroken forest. It does not build nests, instead it uses abandoned nests built by other birds, such as crows, ravens, magpies, and various hawk species. It forages over fields or in open woods.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
mountain bluebird	*Sialia currucoides*	None/None, LA County Sensitive Bird Species List	Mountain bluebird is found in open country with some trees; in winter, it is also found in treeless terrain. Breeding habitat is not always restricted to mountains; it is also found in lowland prairies and sagebrush flats, as well as alpine zones above the treeline. In winter, it is most common in pinyon-juniper woods, but also in open grassland, desert, farmland, and barren plowed fields.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
mountain plover	*Charadrius montanus*	None/SSC	Mountain plover occurs in flat open plains, not mountains. Of all of the shorebirds, mountain plover is the most disconnected from the shore, generally living miles from water in areas of very short grass, including semi-arid plains, grasslands, and plateaus. In some areas, it nests mainly on bare ground found in large prairie-dog towns. Winter habitats include desert flats and plowed fields.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area, and there are several documented occurrences of this species within six miles of the site.
prairie falcon (breeding)	*Falco mexicanus*	None/None, LA County Sensitive Bird Species List	Prairie falcon inhabits open hills, plains, prairies, and deserts. It is typically found in fairly dry, open country, including grassland and desert. It can also be found in open country above the treeline in the high mountains. In winter, it is often found in farmland and around lakes and reservoirs, and may regularly winter in some western cities. It avoids forested country.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.
purple martin	*Progne subis*	None/SSC	Purple martin occurs in towns, farms, and semi-open country near water. In the west it also inhabits mountain forests and saguaro desert. It nests in cavities of trees, usually in colonies, and forages for flying insects.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
short-eared owl	*Asio flammeus*	None/None, LA County Sensitive Bird Species List	The short-eared owl lives in open terrain, such as prairies and marshes. It is often active during daylight, especially in the evening. It nests in tundra, inland and coastal prairies, extensive marshes, and farmland. In the winter, it is also found in stubble fields, small meadows, coastal dunes, and shrubby areas.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
Swainson's hawk	*Buteo swainsoni*	None/Threatened	Swainson's hawk spends the breeding season in the Central Valley of California and is commonly found in agricultural areas or open grasslands containing solitary trees for nesting. Its diet consists of insects, small mammals and reptiles.	**Moderate potential to occur.** There is suitable foraging habitat for this species within and adjacent to the Project Area; however, suitable nest trees for this species are sparse in the vicinity of the Project area. There is one recently documented (2020) occurrence of this species approximately two miles northeast of the site; however, the majority of documented occurrences of this species are clustered around the valley surrounding Lancaster and Palmdale 20 miles east of the Project Area. There are no documented occurrences of this species within 20 miles north, south, or west of the Project Area.
tricolored blackbird	*Agelaius tricolor*	None/Threatened, SSC	Tricolored blackbird is a colonial species found almost exclusively in California. It utilizes wetlands, marshes and agricultural grain fields for foraging and nesting. The tricolored blackbird population has declined significantly in recent years due to habitat loss and harvest of grain fields before young have fledged.	**Not expected to occur.** Although there are historical documented occurrences less than 3 miles from the Project Area at Holiday Lake, there have not been any documented occurrences at the lake since 2016, and suitable habitat for this species is not present within or adjacent to the Project Area.
turkey vulture (breeding)	*Cathartes aura*	None/None, LA County Sensitive Bird Species List	Turkey vultures are widespread and common in California over open country, woods, deserts, and foothills. They are most common over open or semi-open country, especially within a few miles of rocky or wooded areas providing secure nesting sites and carrion for foraging. It generally avoids densely forested regions.	**Moderate potential to occur.** There is suitable foraging habitat for this species within and adjacent to the Project Area.
western meadowlark	*Sturnella neglecta*	None/None, LA County Sensitive Bird Species List	Western meadowlark is a common species in California that inhabits grasslands, cultivated fields and pastures, meadows, and prairies. It mostly breeds in natural grasslands, abandoned weedy fields, rangelands, and sometimes on cultivated land. In winter, it is often found in stubble fields and other farmland.	**Moderate potential to occur.** There is suitable habitat for this species within and adjacent to the Project Area.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Common Name	Scientific Name	Federal/State Status[1]	Habitat Associations	Potential to Occur in the Project Area[2]
			Mammals	
American badger	*Taxidea taxus*	None/SSC	American badger is most abundant in drier open stages of most shrub, forest, and grassland habitats with friable soils. It digs burrows for cover and will reuse burrows occasionally, but may also dig new burrows each night in the summer. The diet consists of rodents, small mammals, reptiles, insects, birds and carrion.	**Low potential to occur.** Although low-quality habitat for this species may be present within or adjacent to the Project Area, there are only two documented occurrences of this species within 8 miles of the Project Area; one has no date or owner information and the other is from 1906.
Tehachapi pocket mouse	*Perognathus alticola inexpectatus*	None/SSC	The Tehachapi pocket mouse has been found in small numbers in annual grasslands, pinyon-juniper woodland, Joshua tree woodland, Jeffrey pine forest, and sagebrush and rabbitbrush scrub at elevations between 3,500 – 6,000 ft.	**Low potential to occur.** Although there is some low-quality habitat for this species within the Project Area, there are no recently documented occurrences of this species within 10 miles of the site.
Townsend's big-eared bat	*Corynorhinus townsendii*	None/SSC	Townsend's big-eared bat is found throughout most of western North America where it hibernates and roosts in caves and mines near entrances, or cave like structures such as buildings or under decks. It forages in forested habitats, along open edges.	**Not expected to occur.** Suitable roosting and foraging habitat for this species is not present in the vicinity of the Project Area.
desert kit fox	*Vulpes macrotis arsipus*	None/None; CDFG Code, Title 14, Section 460	The desert kit fox is an inhabitant of the Mojave and Colorado deserts in California. It primarily inhabits sparsely vegetated scrub habitats and native or annual grasslands with abundant rodent populations, such as alkali sink scrub, saltbush scrub, and chenopod scrub, although oak woodlands, vernal pools, alkali meadows and playas also provide habitat. Kit foxes are almost entirely nocturnal, and daytime activity is confined to the vicinity of the den.	**Low potential to occur.** Although low-quality habitat may be present in the Project Area, no appropriately sized burrows were observed during the field survey and the Project Area is in the extreme western edge of the species' known range.

[1]Status Legend:

SSC: Species of Special Concern (CDFW)
FP: Fully Protected (CDFW)

2 Definitions Regarding Potential for Occurrence

- Not expected to occur – Habitat within and adjacent to the Project Area is lacking for the species' life history requirements (foraging, breeding, cover, range, elevation, hydrology, vegetation community, site history, and/or disturbance regime). There are no documented occurrences of the species in the larger vicinity of the Project Area.
- Low – Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of poor quality. Because of this, the species is highly unlikely to be found within the Project Area. Any documented occurrences of the species are likely further than possible for the species to occur on the site, the date of the occurrence is several decades old, or the vicinity of the Project Area has been developed in a manner that likely precludes the species from presently occurring.

- Moderate – Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. There are recently documented occurrences in the near vicinity of the Project Area; therefore, the species has a moderate probability of utilizing the site.
- High – All of the habitat components meeting the species requirements are present, and/or most of the habitat on or adjacent to the Project Area is highly suitable. There are documented occurrences of the species on or immediately adjacent to the Project Area; therefore, the species has a high probability of utilizing the Project Area.
- Present – Species was observed within the Project Area during field surveys or has been recorded (i.e., CNDDB, or other source) within the Project Area recently.

APPENDIX A
Special-Status Wildlife Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Sources:

California Department of Fish and Wildlife (CDFW). 2024. California Natural Diversity Database (CNDDB). Rarefind, Version 5 (Commercial Subscription). Accessed August 2024. Sacramento, California. Website https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx#.

United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation (IPaC). The Environmental Conservation Online System. Accessed August 2024. Sacramento, California. Website https://ecos.fws.gov/ipac/.

APPENDIX B
Special-Status Plant Species with Known or Potential Occurrence in the Vicinity of the RPCA 230th Street Solar Project in Los Angeles County, California

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Allium howellii var. *clokeyi*	Mt. Pinos onion	None/None, CRPR 1B.3	Perennial bulbiferous herb found in Great Basin scrub, pinyon and juniper woodland, and meadows and seeps (edges). Elevation 4,265-6,070 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Androsace elongata ssp. *acuta*	California androsace	None/None, CRPR 4.2	Annual herb found in chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland. Elevation 490-4,280 feet. Blooms Mar-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Calochortus clavatus var. gracilis	slender mariposa-lily	None/None, CRPR 1B.2	Perennial bulbiferous herb found in chaparral, coastal scrub, and valley and foothill grassland (shaded foothill canyons; often on grassy slopes within other habitats). Elevation 1,045-3,280 feet. Blooms Mar-Jun (Nov).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	None/None, CRPR 1B.1	Perennial bulbiferous herb found in meadows and seeps, chaparral, and lower montane coniferous forest. Occurs in vernally moist places in yellow-pine forest and chaparral. Elevation 2,325-7,840 feet. Blooms Apr-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Calystegia peirsonii	Peirson's morning-glory	None/None, CRPR 4.2	Perennial rhizomatous herb found in chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevation 100-4,920 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Castilleja gleasoni	Mt. Gleason paintbrush	None/Rare, CRPR 1B.2	Perennial herb (hemiparasitic) found in lower montane coniferous forest, chaparral, and pinyon and juniper woodland (open flats or slopes in granitic soil). Restricted to the San Gabriel Mountains. Elevation 3,805-7,120 feet. Blooms May-Jun (Sep).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	None/None, CRPR 1B.1	Annual herb found in coastal scrub and valley and foothill grassland (sandy soils). Elevation 490-4,005 feet. Blooms Apr-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Chorizanthe spinosa	Mojave spineflower	None/None, CRPR 4.2	Annual herb found in chenopod scrub, Joshua tree "woodland", Mojavean desert scrub (playas, sometimes alkaline). Elevation 20-4,265 feet. Blooms Mar-Jul.	**Low potential to occur.** Although suitable habitat for this species may be present within or adjacent to the Project Area, there are no CNDDB documented occurrences of this species in LA County. All previous occurrences noted in Calflora are in the eastern portion of LA County.
Clinopodium mimuloides	monkey-flower savory	None/None, CRPR 4.2	Perennial herb found in chaparral, North Coast coniferous forest (mesic, streambanks). Elevation 1,000-5,905 feet. Blooms Jun-Oct.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Cryptantha clokeyi	Clokey's cryptantha	None/None, CRPR 1B.2	Annual herb found in Mojavean desert scrub. Elevation 2,380-4,480 feet. Blooms in Apr.	**Low potential to occur.** Marginally suitable habitat for this species is present within the Project Area though occurrence is unlikely due to the history of agricultural disturbance.
Delphinium parryi ssp. *purpureum*	Mt. Pinos larkspur	None/None, CRPR 4.3	Perennial herb found in chaparral, Mojavean desert scrub, pinyon and juniper woodland. Elevation 3,280-8,530 feet. Blooms May-Jun.	**Low potential to occur.** Marginally suitable habitat for this species is present within the Project Area though occurrence is unlikely due to the history of agricultural disturbance. Outside of known elevation range.
Diplacus pictus	calico monkeyflower	None/Endangered, CRPR 1B.2	Annual herb found in broadleaved upland forest and cismontane woodland within granitic, disturbed areas. Elevation 325-4,690 feet. Blooms Mar-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Dudleya abramsii ssp. *calcicola*	limestone dudleya	None/None, CRPR 4.3	Perennial herb found in chaparral, pinyon and juniper woodland (carbonate). Elevation 1,640-8,530 feet. Blooms Apr-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Eriastrum hooveri	Hoover's eriastrum	None/None, CRPR 4.2	Annual herb found in chenopod scrub, pinyon and juniper woodland, valley and foothill grassland (sometimes gravelly). Elevation 165-3,000 feet. Blooms Mar-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Eriogonum callistum	Tehachapi buckwheat	None/None, CRPR 1B.1	Perennial herb found in chaparral (openings, rocky, limestone). Elevation 4,590-5,675 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Eriophyllum lanatum var. *hallii*	Fort Tejon woolly sunflower	None/None, CRPR 1B.1	Perennial herb found in chaparral and cismontane woodland, often on slopes in loamy soils. Elevation 3,490-4,920 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Eschscholzia lemmonii ssp. *kernensis*	Tejon poppy	None/None, CRPR 1B.1	Annual herb found in chenopod scrub and valley and foothill grassland. Elevation 520-3,280 feet. Blooms (Feb)Mar-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Species not known to occur in Los Angeles County.
Frasera neglecta	pine green-gentian	None/None, CRPR 4.3	Perennial herb found in lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Elevation 4,595-8,205 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Fritillaria pinetorum	pine fritillary	None/None, CRPR 4.3	Perennial bulbiferous herb found in chaparral, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest (sometimes granitic, metamorphic). Elevation 5,695-10,825 feet. Blooms May-Jul (Sep).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Gilia interior	inland gilia	None/None, CRPR 4.3	Annual herb found in cismontane woodland, Joshua tree "woodland", lower montane coniferous forest (rocky). Elevation 2,295-5,580 feet. Blooms Mar-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Gilia latiflora ssp. *cuyamensis*	Cuyama gilia	None/None, CRPR 4.3	Annual herb found in pinyon and juniper woodland (sandy). Elevation 1,950-6,560 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Githopsis tenella	delicate bluecup	None/None, CRPR 1B.3	Annual herb found in chaparral and cismontane woodland (mesic sites, sometimes serpentinite). Elevation 1,065-6,235 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Goodmania luteola	golden goodmania	None/None, CRPR 4.2	Annual herb found in Mojavean desert scrub, meadows and seeps, playas, valley and foothill grassland (usually wetlands, sometimes clay, alkaline). Elevation 65-7,220 feet. Blooms Apr-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. There are no CNDDB documented occurrences of this species in LA County.
Leptosiphon serrulatus	Madera leptosiphon	Endangered/None, CRPR 1B.2	Annual herb found in cismontane woodland and lower montane coniferous forest (dry slopes, often on decomposed granite in woodland). Elevation 980-4,265 feet. Blooms Apr-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lessingia tenuis	spring lessingia	None/None, CRPR 4.3	Annual herb found in chaparral, cismontane woodland, lower montane coniferous forest (openings). Elevation 985-7,055 feet. Blooms May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	None/None, CRPR 4.2	Perennial bulbiferous herb found in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland (openings). Elevation 100-5,905 feet. Blooms Mar-Jul (Aug).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lupinus elatus	silky lupine	None/None, CRPR 4.3	Perennial herb found in lower montane coniferous forest, upper montane coniferous forest. Elevation 920-9,845 feet. Blooms Jun-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Lupinus peirsonii	Peirson's lupine	None/None, CRPR 1B.3	Perennial herb found in Joshua tree woodland, pinyon and juniper woodland, lower montane coniferous forest, and upper montane coniferous forest (decomposed granite slide and talus, on slopes and ridges). Elevation 3,280-8,200 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Microseris sylvatica	sylvan microseris	None/None, CRPR 4.2	Perennial herb found in chaparral, cismontane woodland, Great Basin scrub, pinyon and juniper woodland, valley and foothill grassland (rarely serpentine). Elevation 150-4,920 feet. Blooms Mar-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Monardella linoides ssp. *anemonoides*	southern Sierra monardella	None/None, CRPR 1B.3	Perennial herb found in chaparral, cismontane woodland, and lower montane coniferous forest. Elevation 2,200-8,040 feet. Blooms Jun-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Monardella linoides ssp. *oblonga*	Tehachapi monardella	None/None, CRPR 1B.3	Perennial rhizomatous herb found in lower montane coniferous forest, upper montane coniferous forest, and pinyon and juniper woodland. On dry slopes of yellow pine forest, occurs in decomposed granitic soils; also in roadside disturbed areas. Elevation 2,950-8,105 feet. Blooms (may)Jun-Aug.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Occurrence unlikely due to history of agricultural disturbance.
Muhlenbergia utilis	aparejo grass	None/None, CRPR 2B.2	Perennial rhizomatous herb found in chaparral, and cismontane woodland (coastal, sometimes alkaline, sometimes serpentine soils). Elevation 80-7,630 feet. Blooms Mar-Oct.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Navarretia fossalis	spreading navarretia	Threatened/None, CRPR 1B.1	Annual herb found in chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, and vernal pools. Elevation 95-2,150 feet. Blooms Apr-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Nemophila parviflora var. *quercifolia*	oak-leaved nemophila	None/None, CRPR 4.3	Annual herb found in cismontane woodland, lower montane coniferous forest. Elevation 2,295- 7,220 feet. Blooms May-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Opuntia basilaris var. *brachyclada*	short-joint beavertail	None/Threatened, CRPR 1B.1	Perennial stem found in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland (sandy soil or gravelly granitic loam). Elevation 1,390-5,905 feet. Blooms Apr-Jun (Aug).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Opuntia basilaris var. *treleasei*	Bakersfield cactus	Endangered/ Endangered, CRPR 1B.1	Perennial stem found in chenopod scrub, cismontane woodland, and valley and foothill grassland. Elevation 390-4,755 feet. Blooms Apr-May.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Species not observed.
Perideridia pringlei	adobe yampah	None/None, CRPR 4.3	Perennial herb found in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland (often clay, serpentine). Elevation 985-5,905 feet. Blooms Apr-Jun (Jul).	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Physaria ludoviciana	silver bladderpod	None/None, CRPR 2B.2	Perennial herb found in Great Basin scrub. Elevation 6,985-6,990 feet. Blooms May-Jun.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Plagiobothrys torreyi var. *perplexans*	chaparral popcornflower	None/None, CRPR 4.3	Annual herb found in chaparral, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest (igneous soils, burned areas). Elevation 3,500-9,000 feet. Blooms Apr-Sep.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area. Outside known elevation range.
Sidalcea neomexicana	salt spring checkerbloom	None/None, CRPR 2B.2	Perennial herb found in playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, alkali springs and marshes. Elevation 45-5,020 feet. Blooms Mar-Jun.	**Not expected to occur.** Suitable wetland habitat for this species is not present within or adjacent to the Project Area.
Streptanthus campestris	southern jewelflower	None/None, CRPR 1B.3	Perennial herb found in chaparral, lower montane coniferous forest, and pinyon and juniper woodland (open, rocky areas). Elevation 2,950-7,545 feet. Blooms (Apr) May-Jul.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Streptanthus medeirosii	Tejon jewelflower	None/None, CRPR 1B.1	Perennial herb found in cismontane woodland (carbonate and granitic soils). Elevation 4,460-6,170 feet. Blooms Jun-Sep.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.
Symphyotrichum greatae	Greata's aster	None/None, CRPR 1B.3	Perennial rhizomatous herb found in broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland. Elevation 980-6,595 feet. Blooms Jun-Oct.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

Scientific Name	Common Name	Status (Federal/State, CRPR)[1]	Life Form, Primary Habitat Associations, Elevation Range (feet), Blooming Period	Potential to Occur[2]
Syntrichopappus lemmonii	Lemmon's syntrichopappus	None/None, CRPR 4.3	Annual herb found in chaparral, Joshua tree "woodland", pinyon and juniper woodland (sometimes gravelly, sandy). Blooms Apr-May (Jun). Elevation 1,640-6,000 feet.	**Not expected to occur.** Suitable habitat for this species is not present within or adjacent to the Project Area.

[1] Status Legend:
CRPR 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere
CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

[2] Definitions Regarding Potential for Occurrence

- Not expected to occur – Habitat within and adjacent to the Project Area is lacking for the species' life history requirements (foraging, breeding, cover, range, elevation, hydrology, vegetation community, site history, and/or disturbance regime). There are no documented occurrences of the species in the larger vicinity of the Project Area.
- Low – Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of poor quality. Because of this, the species is highly unlikely to be found within the Project Area. Any documented occurrences of the species are likely further than possible for the species to occur on the site, the date of the occurrence is several decades old, or the vicinity of the Project Area has been developed in a manner that likely precludes the species from presently occurring.
- Moderate – Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. There are recently documented occurrences in the near vicinity of the Project Area; therefore, the species has a moderate probability of utilizing the site.
- High – All of the habitat components meeting the species requirements are present, and/or most of the habitat on or adjacent to the Project Area is highly suitable. There are documented occurrences of the species on or immediately adjacent to the Project Area; therefore, the species has a high probability of utilizing the Project Area.
- Present – Species was observed within the Project Area during field surveys or has been recorded (i.e., CNDDB, or other source) within the Project Area recently..

Sources:

California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society. Sacramento, CA. Accessed August 2024.

United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation (IPaC). The Environmental Conservation Online System. Accessed August 2024. Sacramento, California. Website https://ecos.fws.gov/ipac/.

California Department of Fish and Wildlife (CDFW). 2024. California Natural Diversity Database (CNDDB). Rarefind, Version 5 (Commercial Subscription). Accessed August 2024. Sacramento, California. Website https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx#.

Appendix C-2

Biological Resources Supplemental Memorandum

Kimley»Horn

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819
916-706-1374

RINCON CONSULTANTS, INC. SINCE 1994

May 1, 2025

Ryan Nyberg, Permitting Manager
RPCA Solar 12, LLC
44 Montgomery Street, Suite 3150
San Francisco, California 94104
Via email: ryan@renewprop.com

Subject: Biological Resources Supplemental Memorandum for the 230th Street Solar Project in Los Angeles County, California

Dear Ryan:

This memorandum has been prepared to address a second round of comments received from the County of Los Angeles (County) on February 27, 2025, regarding the Initial Study/Mitigated Negative Declaration (IS/MND) and Biological Resources Assessment (BRA) for the 230th Street Solar Project (Project) in Los Angeles County, California.

A BRA was prepared by Kleinfelder[1] in February 2023. This assessment included a desktop review of available databases that manage records of known biological resources in the vicinity of the approximate 29-acre Project area, such as the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Inventory of Rare Plants (online version), among others. In addition, a field survey was conducted on the site to verify existing conditions and assess the potential for special-status plant and wildlife species and sensitive biological resources to occur, and the potential effects to these biological resources due to construction and operation of the Project. This assessment was prepared to support the analysis contained in the IS/MND in accordance with the California Environmental Quality Act (CEQA).

Kimley-Horn integrated the BRA results into the IS/MND and submitted the IS/MND to the County for review on June 20, 2024. An initial round of comments from the County was received in August 2024. These comments were addressed in October 2024 and the IS/MND was resubmitted to the County for a second review at that time. This letter is to address comments received from the County on February 27, 2025, during the second review of the IS/MND.

[1] The Kleinfelder biologists who prepared the BRA are now employed by Rincon Consultants.

Summary of Comments on the ISMND to be Addressed in this Memo

The County provided the following comments and/or recommendations during the second review of the IS/MND on February 27, 2025:

- A request for clarifying details in the Project Description (PD) to include further discussion of construction, operations and maintenance (O&M), and decommissioning phases.
- A recommendation to perform surveys for burrowing owl (*Athene cunicularia*; BUOW) prior to initiation of construction. Also, to update the language in the IS/MND to reflect the recent status change of BUOW as a candidate for listing under the California Endangered Species Act (CESA).
- A recommendation to perform an assessment of burrows with potential to support desert kit fox (*Vulpes macrotis*) and American badger (*Taxidea taxus*) during the BUOW surveys, and potential impacts to these species if suitable burrows are present, as well as a request to include mitigation measures for these species.
- A recommendation to perform additional rare plant surveys.
- A recommendation to perform surveys for Crotch's bumble bee and potentially suitable habitat.
- A recommendation to perform surveys for Swainson's hawk (*Buteo swainsoni*; SWHA), and a request to implement a 0.5-mile buffer if active SWHA nests are found during surveys.
- A recommendation for a preconstruction nesting bird survey, including a 500-foot buffer for raptors, be conducted, and additional surveys occur during O&M and decommissioning phases, including monitoring and reporting.
- A request for clarification regarding Project fencing.
- A request to include a description of how the solar panels will be mounted and if any wildlife entrapment issues may be present; and, to include wildlife entrapment avoidance in the Worker Environmental Awareness Training (WEAT) presentation.
- A recommendation to perform surveys for bats, to determine the potential for foraging on the site.
- A request for the County to review the WEAT.
- A request to include language regarding trash in MM BIO-3 (updated to MM BIO-4), and that it must be removed daily or stored in wildlife proof containers to reduce attraction of ravens.
- A request that MM BIO-4 (updated to MM BIO-5) apply to all phases of the Project (construction, O&M, and decommissioning).
- A request for nesting bird monitoring and avoidance in the O&M and Decommissioning Plan.

Response to Comments

Below are detailed responses to the above comments.

Project Description

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as June 2026. Project construction activities generally fall into six main categories: (1) demolition, (2) site preparation (vegetation clearing), (3) grading, (4) paving, (5) system installation, and (6) testing, commissioning, and cleanup. The on-site construction workforce is expected to peak at approximately 50 individuals during the construction

period, but approximately 15 to 20 workers may be expected during non-peak activities. Construction personnel will be divided between civil and electrical services.

The perimeter fence would be installed at the onset of construction to establish the outer boundaries of the Project Site. Site preparation would consist of clearing the existing vegetation in those areas on the Project Site where construction would be undertaken, grading, and establishing temporary staging area (including stockpile and laydown areas) as necessary. Selected vegetation would be removed to accommodate the construction of the array and its appurtenances, as well as to prevent shading on the array during operation. Any vegetation taller than two feet (e.g., the height of the solar modules above grade) or expected to exceed two feet in height would be removed. Grass and groundcover may remain between rows and under the solar modules. All cleared vegetation would be chipped or spread on-site or disposed of responsibly.

A temporary staging area would be used as laydown area for construction equipment and materials. The staging area would also include a location for sanitary facilities and a construction trailer. The area containing the equipment and materials would be closed within a temporary construction fence with a lockable gate. Construction equipment such as tractors, backhoes, loaders, dozers, and graders may be needed to clear vegetation from the Project Site, and to grade roads and areas where structures will stand. All soils would be balanced on-site, and no import or export is expected.

Erosion and sediment control best management practices (BMPs) would be installed on the Project Site to prevent stormwater runoff. These BMPs would remain in place until construction is complete and until the Project Site is reseeded and stabilized in accordance with applicable code requirements. The construction contractor would be required to incorporate BMPs consistent with the County's ordinance and with guidelines provided in the California Stormwater Quality Association's Construction Best Management Practice Handbook, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and a Soil Erosion and Sedimentation Control Plan to reduce potential impacts related to construction of the Project.

Erection of the solar arrays would include support structures and associated electrical equipment and cabling. During this work, there would be multiple crews working on the Project Site with various equipment and vehicles, including special vehicles for transporting the modules and other equipment. As the solar arrays are installed, the electrical collection and communication systems would be installed.

Operation

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be stored vertically at the end of the day. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance. The Project is designed to comply with the development standards of the Los Angeles County's Renewable Energy Ordinance.

The Project would have a useful life of approximately 35 years and would operate year-round. The Project would be unmanned, and no employees would report to the Project Site daily. Typical O&M activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and

maintenance of solar facilities; and periodic panel and inverter washing. It is estimated that the Project would require 6 maintenance-related visits per year and 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

All scheduled maintenance of the Project would occur from 8 a.m. to 5 p.m. Unscheduled maintenance visits would generally occur only if an emergency situation develops at the Project Site or its immediate surroundings that could endanger the functional capacity of the Project and/or endanger the general public health, safety, and welfare of the Project Site and its surroundings. In the event of a major disruption to the Project Site, a corrective maintenance visit would be scheduled as soon as possible with all reasonable effort to schedule any such maintenance activities between 8 a.m. and 5 p.m.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements and BMPs and in a manner consistent with the requirements of the Project Decommissioning Plan. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste with a preference for recycling.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off-site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

Burrowing Owl

The language in the ISMND will be updated to reflect the recent status change of BUOW as a candidate for listing under CESA. Rincon biologists performed a protocol-level BUOW survey according to the CDFW "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012) on April 3, 2025. No burrows of suitable size (4 inches or greater) were observed during the survey, and no burrowing owls were detected. The conclusion of the IS/MND regarding the potential presence of BUOW on the site is supported by these results. An Incidental Take Permit for this species is not warranted at this time. We recommend including the following mitigation measure in the unlikely event BUOW are detected on the site in the future:

- *Mitigation Measure:* Should BUOW individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any preconstruction surveys, work will stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). CDFW will be notified within 24 hours of the detection to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration. Prior to decommissioning, non-breeding season and breeding season

protocol-level surveys will be performed to determine presence of BUOW on the site. If any BUOW individuals or sign is detected during the surveys, CDFW will be contacted to determine next steps.

Desert Kit Fox and American Badger

During the BUOW survey that was performed on April 3, 2025, no burrows of suitable size for desert kit fox or American badger (4 inches or greater) were observed during the survey, and no desert kit foxes or American badgers were detected. The conclusion of the IS/MND regarding the low potential for presence of desert kit fox and American badger on the site is supported by these results. A preconstruction survey for burrows that could support desert kit fox or American badger will be performed 48 hours prior to construction, and if suitable burrows for either species are observed, the following measures will be implemented:

- *Mitigation Measure:* If occupied desert kit fox dens are detected during the preconstruction survey, a Desert Kit Fox Avoidance Plan will be prepared and submitted to CDFW for written approval. The Plan will include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) will be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring will occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den will be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens will be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers will be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.
- *Mitigation Measure:* If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den.

  If an active den cannot be avoided, a Badger Eviction Plan will be prepared and submitted to CDFW for approval. The Plan will describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).

Rare Plants and Vegetation Community Mapping

A rare plant survey was performed on April 8, 2025, by two qualified Rincon botanists. No rare plants were observed on the site. The vegetation communities mapped on the site included cheat grass grassland and rubber rabbit brush scrub. Although some small patches of native wildflowers were observed on the site (including California poppy [*Eschscholzia californica*] and yellowray goldfields [*Lasthenia glabrata*], none were large enough to be classified as a "wildflower field" according to Holland types and minimum mapping standards employed during the survey. The conclusion of the IS/MND regarding the potential for impacts to rare plants or sensitive vegetation communities is supported by these results. To minimize the potential impacts to native vegetation and to promote Project site revegetation following construction, the following mitigation measure is recommended:

- *Mitigation Measure*: To the extent practicable, construction activities will be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles will be used during construction and grading of Project areas will be limited the minimum

necessary to meet Project objectives. Application of seed will be limited to that required to meet Project objectives and seed mixes will be provided to the County for review prior to application.

Crotch's Bumble Bee

A formal habitat assessment was performed on April 8, 2025, to determine if suitable nesting or foraging habitat for Crotch's bumble bee is present on the Project site. During the survey, Rincon biologists observed potentially suitable foraging and nesting habitat for Crotch's bumble bee. However, the Project site provides limited suitable habitat compared to surrounding areas due to previous agricultural activities, and no bumble bees were observed during the habitat assessment. A protocol survey pass was performed on April 21, 2025, by two qualified Ricon biologists each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed. Accordingly, there is a low potential for Crotch's bumble bee on the Project site. To address potential impacts to Crotch's bumble bee, the following mitigation measure is recommended:

- *Mitigation Measure*: Protocol surveys following the CDFW *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023) will be performed prior to construction to determine if Crotch's bumble bee is present on the Project site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required.

  If this species is detected foraging within 100 feet of the Project site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project site, the nest will be avoided by a 50-foot buffer. The nest will be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following will be implemented:

  - If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code section 2081 subdivision (b).
  - Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on) that will be removed or damaged by the Project should be replaced at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources should be replaced as close to their original location as is feasible after the Project is constructed. These floral resources should be maintained during the life of the Project and should be replanted and managed as needed to ensure the habitat is preserved.

Swainson's Hawk

Swainson's hawk occurrences in the vicinity of the Project site are concentrated 15+ miles east of the Project site around Lancaster and east of Lancaster. A Swainson's hawk survey was performed by qualified Rincon biologists on April 15, 2025. No Swainson's hawks were observed within the 0.5-mile buffer of the site during the survey. There is only one CNDDB documented occurrence of SWHA within 5 miles of the site, dated 2020. The preconstruction nesting bird survey buffer will be extended to 0.5-mile for SWHA, where accessible. If any active SWHA nests are detected within the 0.5-mile buffer, they will be monitored for a minimum of 3 hours to determine a baseline of behavior, and will be avoided by a minimum 0.25-mile buffer. After the initial baseline monitoring event, the nest will be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest will be monitored for at least 2 hours each week between 7:00 am and 10:00 am, and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) will be kept in a field notebook or digital field data collection

application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer will remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

Nesting Bird Surveys

A preconstruction nesting bird survey will be performed no more than 5 days prior to the onset of construction according to MM BIO-1 prior to construction and decommissioning activities, and will include a 500-foot buffer for raptors, where accessible, and a 0.5-mile buffer for SWHA, where accessible. If any active nests are detected within Project site or buffer, they will be monitored for a minimum of 1 hour for passerines and 3 hours for raptors to determine a baseline of behavior, and will be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest will be monitored once weekly to determine the stage of the nest. The buffer will remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

Nesting bird surveys will not be required during O&M activities due to the low frequency and short duration of O&M activities over the life of the Project (e.g., panel washing 2-3 days per year with 1-2 personnel and a pickup truck); however, potential impacts to nesting birds during O&M activities will be addressed in the Project WEAT (to be included as supplemental material in the Project's O&M Manual), so that all workers on site will be aware that birds may be nesting on the site, how to identify potential nests, and avoidance strategies (e.g. implementation of buffers).

Fencing

See the updated Project description above that details the fencing specifications.

WEAT

In addition to the items included in MM BIO-3 of the IS/MND, the WEAT presentation will include strategies to avoid entrapment of wildlife during construction and decommissioning activities, avoidance of nesting birds during all phases of the Project, and reiteration that trash will be removed daily or will be stored in wildlife-proof containers. Contact information for the Project biologist and other useful wildlife-related contacts (CDFW, venomous snake humane relocation services, etc.) will be included in the WEAT. The WEAT will be sent to the County for review prior to implementation of the Project.

Bats

Work will not be conducted from an hour before sunset to an hour after sunrise; therefore, no impacts to foraging bats would occur. Furthermore, there is a low potential for bats to occur on site, based on a lack of suitable roosting habitat on and adjacent to the site. As such, surveys for foraging bats are not warranted.

MM BIO-4

Language will be included in MM BIO-4 that trash must be removed daily or stored in wildlife proof containers to reduce the chance for attracting ravens.

MM BIO-5

MM BIO-5 will apply to the construction and decommissioning phases of the Project.

Biological Monitoring During O&M and Decommissioning Activities

As detailed above, the O&M and Decommissioning Plan will include specific requirements for biological monitoring when these activities have the potential to result in impacts to nesting birds and other sensitive wildlife that may occur in or near the Project site. Specifically, activities such as vegetation maintenance or other activities conducted during the breeding bird season.

If you have any questions regarding this memo, please contact Lisa Achter at lachter@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.

Lisa Achter
Senior Biologist, Project Manager

Appendix D

Cultural Resources Identification Report

Kimley»Horn

Cultural Resources Identification Report for the 230th Street Solar Project, Los Angeles County, California

June 2023

A Report Prepared for:

Stephanie Loucas
VP, Development
RPCA Solar 12, LLC
Renewable Properties, LLC
879 Sanchez Street
San Francisco, California 94114

Prepared by:

Jessica Neal, M.A., RPA
Shelby Soares, B.A.
Alyssa Gelinas, B.A.

KLEINFELDER
2882 Prospect Park Drive, Suite 200
Rancho Cordova, California 95670
Phone: 618.771.6093

June 2023
Kleinfelder Project No: 20234230.001A

© 2023 Kleinfelder

STATEMENT OF CONFIDENTIALITY

This report identifies the locations of cultural resources, which are confidential. As nonrenewable resources, archaeological sites can be significantly impacted by disturbances that can affect their cultural, scientific, and artistic values. Disclosure of this information to the public may be in violation of both federal and State of California laws. To discourage damage resulting from vandalism and artifact looting, cultural resource locations should be kept confidential and report distribution restricted. Applicable U.S. laws include, but are not limited to, Section 304 of the National Historic Preservation Act (16 United States Congress 470w-3) and California state laws that apply and include, but are not limited to, Government Code Sections 6250 *et seq.* and 6254 *et seq.*

© 2023 Kleinfelder

MANAGEMENT SUMMARY

Renewable Properties, LLC and RPCA Solar 12, LLC propose to develop a small-scale utility solar generating facility (Project) in Los Angeles County, California (Appendix A). This report presents the findings of an archaeological assessment conducted by Kleinfelder that comprises the Area of Potential Effects (APE). The Project may seek funding from the United States Department of Agriculture under the Rural Energy for America Program. Therefore, this report has been prepared in accordance with Section 106 of the National Historic Preservation Act and the California Environmental Quality Act.

Prior to fieldwork, background research included a search of previously conducted cultural resources studies and findings filed at the South Central Coastal Information Center at California State University, Fullerton, in Fullerton, California. The results found no previously recorded cultural resources or cultural resource studies within the APE. Two previously recorded historic-era resources and three cultural resource studies were identified within the surrounding 0.5-mile radius of the APE (Appendix B).

Kleinfelder contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search of the APE. The NAHC responded on February 2, 2023, that the search returned negative results for the APE. The NAHC provided a list of Native American contacts for Kleinfelder to contact for more information regarding the APE (Appendix C). Kleinfelder distributed letters to the list of Native American contacts on February 30, 2023, requesting information on tribal cultural resources in or near the APE. A summary of correspondence is included in this report (Appendix D).

An intensive pedestrian survey of the APE was conducted on February 21, 2023. The survey was conducted using 15-meter-wide parallel transects resulting in 100 percent survey coverage of the entire APE. One isolated artifact, a chert flake, was identified during the survey. The isolate lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated singular event and is thus recommended ineligible for inclusion in the National Register of Historic Places and the California Register of Historical Resources.

No historic properties were identified within the APE during this study, as such Kleinfelder recommends a finding of no historic properties affected for this undertaking. Kleinfelder considers the APE to have moderate sensitivity for buried cultural resources within the Project vicinity, and the following measures are recommended:

- A qualified archaeologist shall provide an archaeological tailboard to any construction crew working on site during ground disturbing activities.
- In the event archaeological resources are encountered during any ground-disturbing activities associated with the Project, all ground-disturbing work at the location, plus at a reasonable buffer zone, must be immediately suspended. The approving County department shall be contacted, and a qualified professional archaeologist retained to analyze the significance of the find and formulate further mitigation (e.g., Project relocation, excavation plan, and protective cover) in consultation with culturally affiliated tribes or other descendant groups, where applicable.
- Pursuant to California Health and Safety Code §7050.5, if known or suspected Native American or other human remains are encountered, all ground-disturbing work must cease in the vicinity of the discovery, and the County Coroner contacted. The respectful treatment and disposition of remains and associated grave offerings shall be in accordance with Public Resource Code

© 2023 Kleinfelder

§5097.98. The applicant and successors in interest are ultimately responsible for ensuring compliance with this condition.

- In the event the Project design changes, and ground disturbance is anticipated beyond the APE as it is currently defined, further surveys shall be conducted in those new areas to assess the presence of cultural resources. Any newly discovered or previously recorded cultural resources within the additional survey area shall be recorded (or updated) on appropriate Department of Parks and Recreation 523-series forms. If any resources are identified as eligible for listing on the National/California Register and avoidance of these resources is not feasible, then an evaluation and/or data recovery program shall be drafted and implemented.

© 2023 Kleinfelder

TABLE OF CONTENTS

Section **Page**

STATEMENT OF CONFIDENTIALITY ..... **III**

MANAGEMENT SUMMARY ..... **IV**

ACRONYMS AND ABBREVIATIONS ..... **VIII**

1 INTRODUCTION **1**
1.1 Project Description 1
1.2 Area of Potential Effects 1

2 REGULATORY CONTEXT **2**
2.1 Section 106 of the National Historic Preservation Act 2
2.2 California Environmental Quality Act of 1970, as Amended 3
2.3 Public Resources Codes 6

3 NATURAL AND CULTURAL CONTEXT **8**
3.1 Natural Context 8
3.2 Prehistoric Context 8
3.2.1 Late Pleistocene 9
3.2.2 Early Holocene 11
3.2.3 Middle Holocene 11
3.2.4 Late Holocene 12
3.3 Ethnographic Context 15
3.4 Historical Context 16
3.4.1 Mission Period (1769–1830) 16
3.4.2 Rancho Period (1830–1865) 17
3.4.3 American Period (1865–Present) 17
3.4.4 History of Neenach 18

4 BACKGROUND RESEARCH **19**
4.1 Record Search 19
4.2 Historical Map Review 20
4.2.1 Historical Map Review Results 20

5 FIELD METHODS AND RESULTS **22**

6 NATIVE AMERICAN OUTREACH **23**

7 SENSITIVITY FOR BURIED RESOURCES **25**
7.1 Sensitivity for Buried Prehistoric Resources 25
7.2 Sensitivity for Buried Historic Period Resources 25

8 CONCLUSION **26**
8.1 Recommendations 26

9 PREPARERES' QUALIFICATIONS **27**

10 REFERENCES **28**

© 2023 Kleinfelder

Appendices

A Project Maps
B Records Search Results
C Native American Heritage Commission Results
D Native American Coordination
E Survey Photographs
F Department of Parks and Recreation Forms

© 2023 Kleinfelder

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AC	alternating current
A.D.	anno Domini
ACHP	Advisory Council on Historic Preservation
APE	area of potential effect(s)
APN	Assessor's Parcel Number
P.B.	before present
c.	circa
cal	calibrated
CCR	California Code of Regulations
CE	common era
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CRHR	California Register of Historical Resources
DC	direct current
DPR	Department of Parks and Recreation
GLO	Bureau of Land Management General Land Office
ibid	Latin *ibidem*, referring to the source of the previous citation
MW	megawatt
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
No.	number
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PPA	Power Purchase Agreement
PRC	Public Resources Code
Project	230th Street Solar Project
RPA	Register of Professional Archaeologists
SCE	Southern California Edison
SCCIC	South Central Coastal Information Center
SHPO	California State Historic Preservation Officer
SLF	Sacred Lands File
TCR	tribal cultural resource(s)
US	United States
USDA	United States Department of Agriculture
USGS	United States Geological Survey

© 2023 Kleinfelder

1 INTRODUCTION

Renewable Properties, LLC and RPCA Solar 10, LLC propose to develop a small-scale utility solar generating facility (Project) in Los Angeles County, California. The following provides an overview of the Project description, background and objectives, location, and Area of Potential Effects (APE).

1.1 PROJECT DESCRIPTION

The 230th Street Solar Project is a small-scale, ground-mounted utility-scale solar energy facility located on approximately 29 acres of a 40-acre parcel (Assessor's Parcel Number [APN] 3278-025-001). The parcel is located east of the community of Neenach in unincorporated Los Angeles County and is primarily undeveloped open space, apart from a residence in the southwestern corner of the parcel. RPCA Solar 12, LLC has entered into a long-term lease agreement with the property owners, Amilcar Ruben Badano and Debbie Badano, to facilitate the development and long-term operation of the Project.

The Project will generate a total of 4.99 megawatts (MW) alternating current (AC) (7.5 MW direct current [DC]) of clean, reliable solar energy when complete. The Project will interconnect to Southern California Edison's (SCE) pre-existing electrical distribution system located adjacent to the site. The power generated from this facility will be sold to SCE through a long-term Power Purchase Agreement (PPA). Additionally, the Project will be equipped with energy storage technology that will allow onsite renewable energy generation to be stored and dispatched onto the grid when needed.

The Project will utilize approximately 13,851 solar modules and 40 string inverters to convert the sun's energy into usable, AC, power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the array will be no more than 15 feet tall.

1.2 AREA OF POTENTIAL EFFECTS

The approximately 29-acre APE is located 0.25 mile north of California State Route 138, and on the east side of 230th Street West. The APE is situated at an elevation of approximately 2,820 feet above mean sea level. Adjacent land uses in the vicinity of the APE are primarily undeveloped, although some rural residences occur sporadically in the Project vicinity, and there are several small- to large-scale solar installations north and east of the APE.

The APE is situated within Township 20 North, Range 16 West, Section 13 of the Neenach School 7.5-minute U.S. Geological Survey (USGS) quadrangles. The corresponding latitude and longitude at the approximate center of the site are 34°46'48.87" north latitude and 118°32'04.69" west longitude.

© 2023 Kleinfelder

2 REGULATORY CONTEXT

The following section provides the federal, State of California (State), and local laws, regulations, and ordinances that are applicable to cultural resources compliance on the Project.

2.1 SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the National Historic Preservation Act (NHPA) (36 Code of Federal Regulations [CFR] §800) requires that projects undertaken by federal agencies (and/or federally funded projects or projects requiring federal approval) consider the effects of their actions on properties that may be eligible for listing or are listed in the National Register of Historic Places (NRHP). To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (including archaeological and architectural properties) must be inventoried and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead federal agency, consultants in support of the agency or project proponent may be delegated all or portions of the Section 106 process. The 230th Street Solar Project is subject to Section 106 because it will require a United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) federal grant to fund the Project. The Section 106 process includes four primary steps, listed below.

1. Initiation of consultation with consulting parties (36 CFR §800.3).
2. Identification and evaluation of historic properties within the APE (36 CFR §800.4).
3. Assessment of adverse effects on historic properties within the APE (36 CFR §800.5). If there are historic properties that will be affected, consult with the California State Historic Preservation Officer (SHPO) regarding adverse effects, both direct and indirect, on historic properties. If there are no historic properties that will be affected, implementation of the project in accordance with the findings of no adverse effect shall proceed (36 CFR 36 §800.5[d][1]).
4. Resolve adverse effects on historic properties within the APE (36 CFR 800.6). Continue consultation among the federal agency and consulting parties to avoid and mitigate adverse effects. The Advisory Council on Historic Preservation (ACHP) provides comments to head of the federal agency, and the ACHP comments must be considered when final agency decision on the undertaking is made (move forward with the project, stop pursuant to mitigation, step back through Section 106 process) (36 CFR 800.7).

National Register of Historic Places Criteria for Evaluation

The significance of cultural resources is determined using the NRHP's four Criteria for Evaluation (Criteria A–D) at 36 CFR 60.4, which state that a historic property is any site, building, structure, or object that:

A. Is associated with events that made a significant contribution to the broad patterns of our history (Criterion A);
B. Is associated with the lives of persons significant to our past (Criterion B);
C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (Criterion C); and/or
D. Has yielded, or may be likely to yield, information important in prehistory or history (Criterion D).

© 2023 Kleinfelder

If the SHPO determines that a cultural resource is eligible for inclusion in the NRHP, then it is automatically eligible for the California Register of Historic Resources (CRHR). If a resource does not have the level of integrity necessitated by the NRHP, it may still be eligible for the CRHR, which allows for a lower level of integrity.

NRHP Seven Aspects of Integrity
Cultural resources integrity is determined using the NRHP's seven aspects of integrity at 36 CFR 60.4, which state that a historic property must not only be shown to be significant under the NRHP criteria, but it also must retain historic integrity. The seven aspects of integrity include location, design, setting, materials, workmanship, feeling, and association. A property must meet one or more of the Criteria for Evaluation before a determination can be made about its integrity.

2.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT OF 1970, AS AMENDED

The California Environmental Quality Act (CEQA) requires State and local agencies to identify and reduce, if feasible, the significant, negative environmental impacts of land use decisions.

CEQA Guidelines: Title 14 California Code of Regulations (CCR) Section 1427
This section of CEQA recognizes that California's archaeological resources are endangered by urban development; the legislature finds that these resources need preserving; it is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any such materials from a cave.

CEQA Guidelines: Title 14 CCR Section 15064.4 subsection (b)
This section of CEQA defines "historical resource," addresses reburial options for Native American remains, and presents the preferred mitigation of historical resources.

CEQA Guidelines: Title 14 CCR Section 15064.5
This section of CEQA identifies which resources are considered cultural resources, as stated below.

- Resource(s) listed or eligible for listing on the CRHR (Title 14 CCR Section 15064.5(a)(1));
- Resource(s) either listed in the NRHP or in a "local register of historical resources" unless "the preponderance of evidence demonstrates that it is not historically or culturally significant" (Title 14 CCR Section 15064.5(a)(2)); and
- Resources identified as significant in a historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code (PRC) [Title 14 CCR Section 15065.5(a)(2)].

In addition, Subdivision (g) provides the guidelines referenced below regarding historical surveys.

A resource identified as significant in a historical survey may be listed in the CRHR if the survey meets all the following criteria:

- The survey has been or will be included in the State Historic Resources Inventory.
- The survey and the survey documents were prepared in accordance with procedures and requirements of the California Office of Historic Preservation (OHP).
- The resource is evaluated and determined by OHP to have a significance rating of Category 1 to 5 on the Department of Parks and Recreation (DPR) Historic Resources Inventory Form.
- If the survey is 5 years or older at the time of its nomination for inclusion in the CRHR, the survey is updated to identify historic resources that have become eligible or ineligible due to changed

© 2023 Kleinfelder

circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminished the significance of the resource.
- Resources identified during such surveys are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates otherwise.
- A final category of "historical resources" may be determined at the discretion of the lead agency when: any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, education, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record [Title 14 CCR Section 15064.5(a)(3)].

When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within a project, the lead agency shall work with the appropriate Native Americans as identified by Native American Heritage Commission (NAHC). An applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by NAHC (Title 14 CCR Section 15064.5(d)).

CEQA Guidelines: Title 14 CCR Section 15064.5(b)
Section 15124(b) addresses mitigation, and states that the preferred mitigation for historical resources is treatment in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The preferred mitigation for archaeological sites is preservation in place.

CEQA Guidelines: Title 14 CCR Section 15064.7 "Thresholds of Significance"
This section encourages agencies to develop thresholds of significance to be used in determining potential impacts and defines the term "cumulatively significant."

CEQA Guidelines: Title 14 CCR Section 15126.4 "Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects", sub-section (b) "Mitigation Measures Related to Impacts on Historical Resources"
Subsection (b) discusses:

- Impacts of maintenance, repair, stabilization, restoration, conservation, or reconstruction of a historical resource;
- Documentation as a mitigation measure; and
- Mitigation through avoidance of damaging effects on any historical resource of an archaeological nature, preferably by preservation in place, or by data recovery through excavation if avoidance or preservation in place is not feasible; data recovery must be conducted in accordance with an adopted data recovery plan.

CEQA Appendix G Section V
This appendix is a checklist that identifies potential impacts to historical and archaeological resources, and/or human remains. The checklist includes the following questions, which are used to determine if a potential project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; and

© 2023 Kleinfelder

- Disturb any human remains, including those interred outsides of formal cemeteries.

Questions on the checklist are answered to assess whether impacts associated with a project would be potentially significant, less than significant with mitigation, less than significant, or have no impact. The final determination of project-related impacts is made by the lead agency on a project.

CEQA Assembly Bill 52 –Tribal Consultation and Tribal Cultural Resources

Assembly Bill (AB) 52 amended CEQA to address California Native American tribal concerns regarding how cultural resources of importance to tribes are treated under CEQA. CEQA now specifies that a project that may cause a substantial adverse change in the significance of a "tribal cultural resource" [as defined in PRC 21074(a)] is a project that may have a significant effect on the environment. According to AB 52, tribes may have expertise in tribal history and "tribal knowledge about land and tribal cultural resources (TCR) at issue should be included in environmental assessments for projects that may have a significant impact on those resources."

The AB 52 process entails the following:

- The CEQA lead agency must begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe has requested such notification to the lead agency, in writing. The notification request requires that the lead agency inform these tribes of proposed projects in the geographic area provided by the representative tribe; and within set timeframes. Specifically, the lead state agency is required to notify tribe(s) that have requested project notification under AB 52 within 15 days of determining there is a project; the tribe(s) then have 30 days to respond to this notification and request consultation: upon receipt of a request for consultation the lead agency must then initiate consultation with the tribe(s) within 30 days.
- AB 52 applies to the following CEQA documents: Negative Declaration, Mitigated Negative Declaration, or Notification of Preparation of an Environmental Impact Report. Such documents cannot be released for public review before tribal consultation has concluded and shall not contain any confidential information that the Tribe has requested be omitted from public review.

AB 52 further defines the following legislative terms:

PRC 21074 (TCR): The statute identifies TCR as separate and distinct category of resource, separate from a historical resource. New PRC Section 21074 further defines a TCR as any of the following under its subsections (a) through (c):

a) Sites, features, places, and objects with cultural value to descendant communities or cultural landscapes that are any of the following:
    - Listed on the CRHR;
    - Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and
    - Deemed to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1.

b) Sacred places, including, but not limited to, Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines that meet either of the following criteria:
    - Listed on the California NAHC's Sacred Lands File (SLF) pursuant to Section 5097.94 or 5097.96 and a California Native American tribe has submitted sufficient evidence to the

© 2023 Kleinfelder

lead agency demonstrating that significance to the California Native American tribe or contain known graves and cemeteries of California Native Americans.
    - Listed or determined pursuant to criteria set forth in subdivision (g) of Section 5024.1 to be eligible for listing in the CRHR.

c) A cultural landscape is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

d) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "non-unique archaeological resource" as defined in subdivision (h) of Section 21083.2 also may be a TCR if it conforms with the criteria of subdivision (a).

2.3 PUBLIC RESOURCES CODES

PRC Section 5020.1
This section defines several terms, including those provided below.

> "Historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.
>
> "Substantial adverse change" means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired.

PRC Section 5024.1
This section establishes the CRHR. A resource may be listed as a historical resource in the CRHR if it meets the NRHP criteria or the following state criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

PRC Section 5097.5
This section states that any unauthorized removal or destruction of archaeological or paleontological resources on sites located on public land is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the State or any city, county, district, authority or public corporation, or any agency thereof.

PRC Section 5097.98
This section discusses the procedures that need to be followed upon the discovery of Native American human remains. NAHC, upon notification of the discovery of human remains by the County coroner, is required to notify those persons it believes to be most likely descended from the deceased Native American. It enables the descendant to inspect the site of the discovery of the Native American human remains and to recommend to the landowner (or person responsible for the excavation) means of treating, with dignity, the human remains and any associated grave goods.

© 2023 Kleinfelder

PRC Sections 5097.99, 5097.991
These sections establish that it is a felony to obtain or possess Native American artifacts or human remains taken from a grave or cairn and sets penalties for these actions. The sections also mandate that it is the policy of the State to repatriate Native American remains and associated grave goods.

PRC Section 21083.2
This section states that under CEQA, the lead agency is responsible for determining whether a project may have a significant effect on historical and archaeological resources. Section 21083.2 states that if the lead agency determines that the project may have a significant effect on "unique" archaeological resources, an EIR shall be prepared to address these resources. A unique archaeological resource is an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that the resource meets one of the following criteria:

- Contains information needed to answer important research questions and that a demonstrable public interest exists in that information;
- Has a special and particular quality, such as being the oldest or best example of its type; and/or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require that reasonable efforts be taken to preserve these resources in place or provide conditions or mitigation measures.

PRC Section 21084.1
This section sets forth that a project that may cause a significant adverse change in a significant historical resource is a project that may be considered to have adverse effects on the environment. Historical resources not listed on the CRHR or other local lists may still be considered historical resources at the discretion of the lead agency on the project.

© 2023 Kleinfelder

3 NATURAL AND CULTURAL CONTEXT

This section presents background information pertaining to the natural and cultural context of the APE, as well as an overview of regional cultural chronology, ethnography, and history.

3.1 NATURAL CONTEXT

Los Angeles County comprises approximately 4,084 square miles within southern California. Kern County borders it to the north, San Bernadino and Orange Counties to the east, the Pacific Ocean to the south, and Ventura County to the west. The local Mohave desert climate is characterized by hot, dry summers with temperatures in the upper 90s and cold winters with occasional inches of snow.

The APE is located in northwest unincorporated Los Angeles County, approximately 2.5 miles south from the southern boundary of Kern County and 4.5 miles northeast from the Miocene-era Neenach Volcano Formations. The APE is primarily bordered by vacant land with well-drained Greenfield and Hanford sandy loam soils found on alluvial fans and terraces derived from granite (USDA 2023). Site elevations range from approximately 2,810 to 2,830 feet above mean sea level.

Two vegetation communities, rubber rabbitbrush (*Ericameria nauseosa*) scrub and inactive agriculture/ruderal, were mapped during the field survey. Rubber rabbitbrush is dominant or co-dominant in this vegetation community and may coexist with big sagebrush (*Artemisia tridentata*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), Ephedra spp., California buckwheat (*Eriogonum fasciculatum*), California broomsage (*Lepidospartum squamatum*) and bitterbrush (*Purshia tridentata*). In the Project area, rubber rabbitbrush was dominant and patchy, as it seems to have recently recolonized portions of the site after it was discontinued from being used for agricultural purposes.

The APE was in active agriculture until approximately 2011 or 2012 and appears to have remained fallow since then. As such, weedy species like Erodium sp., Plantago sp. and mustard (Brassica sp.) have colonized the site. Some annual grasses were also observed during the field survey, although they were not identifiable due to the time of year the survey was performed.

3.2 PREHISTORIC CONTEXT

Archaeological sequences for the Great Basin and Mojave Desert regions are grouped into Late Pleistocene and Early, Middle, and Late Holocene time frames, with period definitions varying by region. These chronological divisions correlate with climatic and environmental changes and are continually being refined as new data are collected and dating techniques are improved.

Archaeological evidence left by highly mobile hunter-gatherers usually takes the form of sparse scatters of lithic artifacts and small features such as hearths, small rock rings, and milling features. These remains may represent short-term encampments, but the repeated return to specific locations over long periods of time may nevertheless result in substantial archaeological deposits. Archaeological sites in desert regions of California are often limited to surface assemblages that lack datable organic materials or stratigraphic associations, and therefore archaeologists working in these regions rely largely on variations in projectile point morphology to place sites in time.

© 2023 Kleinfelder

Table 1 lists the period designations that are commonly used by archaeologists to describe the culture history of the current study area. These local periods correspond to period designations that have been broadly applied to the Mojave Desert; in many cases these designations share the name with the "index" projectile point type that was prevalent during that time period.

3.2.1 Late Pleistocene

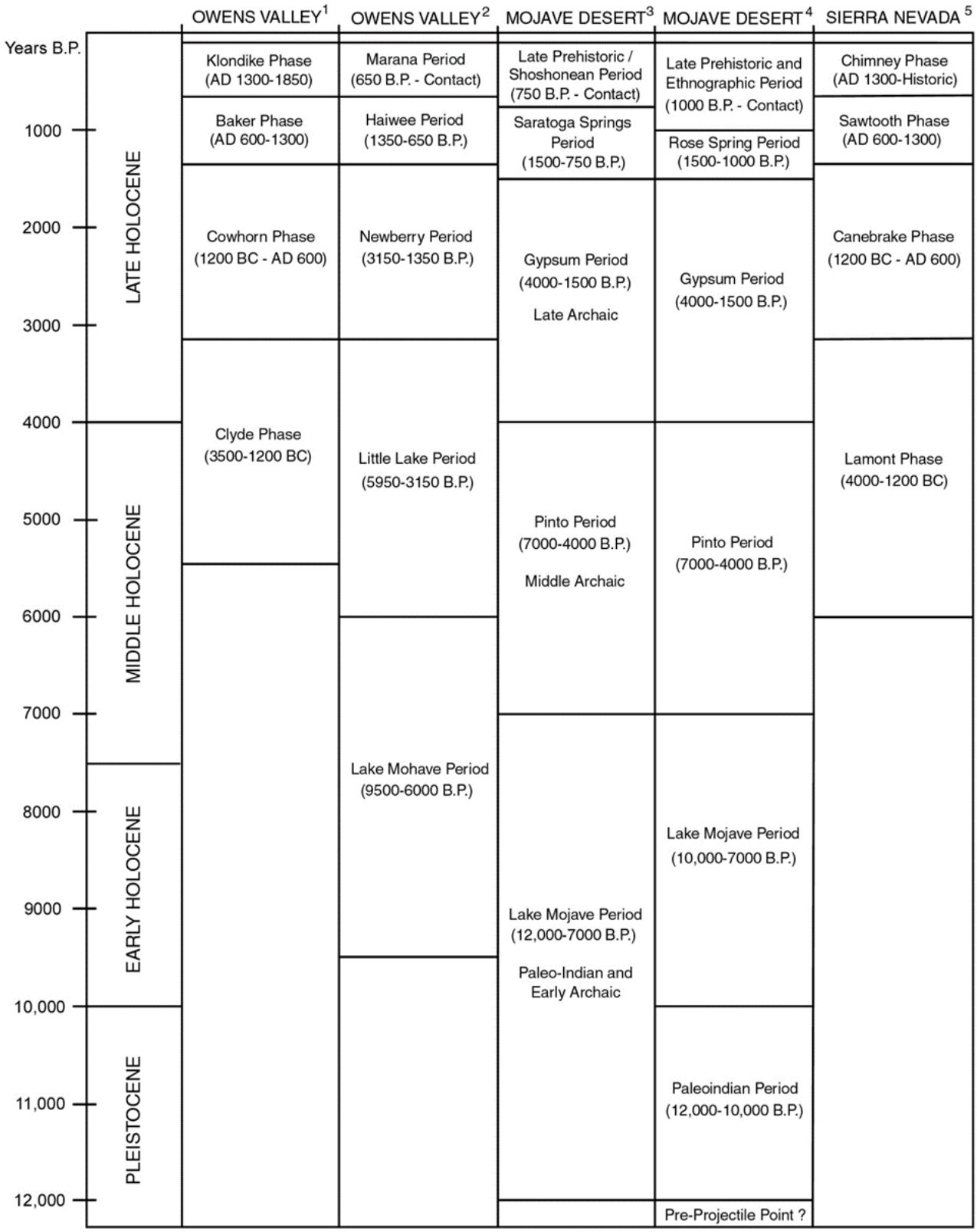
Paleoindian Period (Pre-9500 Before Present [B.P.])

Little is known about the human occupation of this region during the Late Pleistocene. Fluted projectile points characteristic of the Paleoindian period have been documented in scattered locations throughout the western Mojave Desert and southwestern Great Basin, but with few exceptions these points have been found as isolates in undatable surface contexts and therefore have been associated with the Paleoindian period solely on the basis of their morphological similarity to securely dated Clovis projectile points from the Great Plains and Southwest regions (Dillon 2002:115; Sutton 1996). Excavations at China Lake during the 1970s uncovered fluted points associated with burned, extinct megafaunal material (Davis 1975) providing convincing evidence that there was human occupation in the region during the terminal Pleistocene. Examples of fluted Paleoindian projectile points have been recovered in the immediate vicinity of the proposed project (Dillon 2002: Table 1) and include a fragment of an obsidian Clovis point recovered from the Rose Spring site (CA-INY-372), located approximately 0.25 mile south of the Haiwee power plant (Yohe 1992). Other tools associated with the Paleoindian period are large side scrapers, blades struck from prepared cores, and a mixture of expedient flaked tools (Justice 2002:73).

Extinct lakeshore and wetland environments are of particular interest to archaeologists who are studying the late Pleistocene and early Holocene—Bryan and Tuohy (1999) assert that "an economic adaptation to the presence of an existing shallow freshwater lake and the bioresources available in and around it clearly was the most important factor in the organization of the annual round followed by early prehistoric occupants of the Great Basin." During the wet and cool Pleistocene, basin-and-range topography caused most Great Basin lakes to follow a sequence of fluctuations punctuated by overflows, rather than to exist as a steady-state system of continuously incoming and outgoing streams. Lakes along the eastern edge of the Sierra Nevada Mountains were arranged as a chain, and during times of high precipitation and glacial melt, each lake would fill up to its overflow point and spill downriver to the next lake in the chain. Lake Russell (which encompassed the present-day Mono Lake) was the farthest north in the chain; water would flow south in turn through Adobe and Owens lakes, through Rose Valley (including the wash that contains the project area) to China and Searles lakes, and then up north into Panamint Lake (Grayson 1993). Highstand dates for these lakes are not identical, which emphasizes the regional nature of the early Pleistocene climatic swings. Sediment investigations have shown that Owens Lake last overflowed sometime before 15,300 B.P., or before the earliest evidence of humans in the area (Bacon et al. 2006). Dorn et al. (1990) compared their own radiocarbon dates with the results from other researchers and arrived at highstand dates of 10,500 B.P. for Searles Lake, 10,000 B.P. for Lake Manly and no later than 9220 B.P. for Lake Mojave.

It is not currently clear whether the Haiwee wash contained the types of dependable vegetation, water, and game animals that would make the area a destination for mobile Paleoindian populations. Sediment investigations have shown that Owens Lake last overflowed into the Haiwee wash sometime before 15,300 cal years B.P. or before the earliest evidence of humans in the area (Bacon et al. 2006). Without discharge from Owens Lake, the wash would have been fed only by runoff from the seasonal drainages to

© 2023 Kleinfelder



(1) Bettinger 1976, 1982; (2) Bettinger and Taylor 1974; Basgall and McGuire 1988; (3) Warren 1980, 1984; Warren and Crabtree 1986; (4) Sutton 1996; (5) Garfinkel et al. 1979a; McGuire and Garfinkel 1980.

TABLE 1: Chronological Sequences for the Owens Valley, Mojave Desert, and Southern Sierra Nevada

© 2023 Kleinfelder

the west of the project area. However, given the relatively high level of precipitation during the terminal Pleistocene, the wash may have received enough water to create a productive wetland environment.

3.2.2 Early Holocene

Lake Mohave Period (9500 to 6000 B.P.)
The people that lived in the western Mojave Desert and southwestern Great Basin were profoundly affected by environmental changes during the gradual Pleistocene–Holocene transition. Temperatures became warmer but remained cooler and moister than today, and the region became marked by shallow lakes and marshes that were biologically very productive, surrounded by desert vegetation typical of later time periods, especially white bursage and later creosote bush (Grayson 1993:199). Some low-elevation locales retained juniper and sagebrush habitats. By the early Holocene, warmer temperatures, reduced precipitation, and the eventual dehydration of the pluvial lakes likely led to irregularities in the distribution and abundance of resources (Sutton et al. 2007:237).

These climatic changes created the need for an increasingly diversified subsistence strategy, reflected in the archaeological materials associated with the Mojave period. Hallmark artifacts consist of Great Basin stemmed and concave-base projectile points and some highly formalized flake tools, such as scrapers, gravers, bifaces, and occasionally crescents. Unifacial, plano-convex cores, flake cores, and battered stone tools, as well as unshaped handstones and thin- or thick-slab millingstones, have been found in association with early land-use in the China Lake Basin (Basgall 2007:170). In many Early Holocene sites in the Mojave and Great Basin deserts these tools are manufactured of non-local materials, suggesting that they were produced by highly mobile populations. This, coupled with the relative lack of groundstone tools in most Early Holocene assemblages, has led to the commonly held assumption that Mojave period groups were characterized by low population density and a subsistence regime that focused on hunting. Not all archaeologists share this view, however—Eerkens et al. (2007) argue that Mojave period sites in the nearby Coso Basin show evidence of relatively dense populations that exploited a wide range of environments and were no more mobile than Middle or Late Holocene groups. Sutton et al. (2007:237) suggest that gradually drying pluvial lake basins were abandoned by prehistoric people during this period in favor of the eastern front of the Sierra Nevada, where a regular recharging of catchments created a rich patchwork of resources.

3.2.3 Middle Holocene

Little Lake Period (5950 to 3150 B.P.)
The Middle Holocene climate, although arid compared to the periods before and after, was still highly variable, with multiple oscillations between wetter and drier conditions occurring throughout. Although the lakes and marshes of the early Holocene receded during the early part of the period, streams and springs in the region may have still maintained water flow from nearby ranges, providing suitable water sources to sustain human activity, albeit at low densities (Aikens 1978; Basgall 2000; Jenkins and Warren 1984; Sutton 1996). Vegetation communities capable of supporting large game animals became limited to a few isolated areas. Settlement patterns adapted, shifting to upland settings where sources of water still existed (Sutton 1996).

The Little Lake period is marked by the appearance of Little Lake and Pinto series projectile points. These thick points with an indented or bifurcate base, robust basal ears, and weak shoulders were first defined

© 2023 Kleinfelder

by Elizabeth and William Campbell in 1935 in the Pinto Basin, approximately 200 miles southwest of Owens Lake (Campbell and Campbell 1935). Other similarly ancient point styles include varied side- and corner-notched forms such as Fish Slough Side-notched (Basgall et al. 1995) and "thick Elko" forms identified by Gilreath and Hildebrandt (1997). Other artifacts diagnostic of the period include large and small leaf-shaped bifaces, domed and heavy-keeled scrapers, numerous core and cobble tools, large metates and milling slabs, and shaped and unshaped handstones. Very small artifact assemblages and only occasional time-markers typify many middle Holocene sites (Basgall and Delacorte 2012:2–8). The best-known expression of the Little Lake period in the vicinity of the project area occurs at the Stahl Site, located on the northern end of Little Lake, approximately 12 miles south of the project area (Harrington 1957).

Many archaeologists interpret these diverse artifact assemblages as a response to the onset of drier conditions. The presence of both hunting tools and milling equipment appears to represent a move from the strict exploitation of high-ranked food items, such as large animals, to a more diversified subsistence strategy (Sutton et al. 2007:237; Warren and Crabtree 1986). The use and abundance of milling equipment, particularly prepared basins, notably increases, and thin slab pieces of non-local stone were used, with both features suggesting intensification of plant exploitation. Faunal remains continued to focus on large and small terrestrial game, with the addition of fish (Delacorte et al. 1995; Gilreath 1995:17).

The procurement of obsidian from lag quarry deposits in the Coso Volcanic Field, located 8.5 miles (13.5 kilometers [km]) southeast of the project area, began during the Lake Mohave period and extended through the Little Lake period. Quarry areas show evidence of core and early-stage biface production resulting in a wide variety of tool types, indicating "a rather generalized, opportunistic approach to the acquisition of obsidian" (Gilreath and Hildebrandt 1997:177).

3.2.4 Late Holocene

The climate of the prehistoric late Holocene approximates that of today, with cooler and moister conditions than the middle Holocene but drier than the early Holocene. Plant communities took on their modern distributions, but as in the middle Holocene, the climate was highly variable, and many lake levels fluctuated, at times dramatically, throughout the period. At least two major droughts likely occurred in the Sierras, at c. 1050 to 840 B.P. and 740 to 600 B.P., resulting in low lake levels throughout the western Great Basin (Stine 1994, 2003). These droughts were followed by a cooler and wetter period from 600 to 200 B.P., which raised Owens Lake to its second highest stand of the late Holocene (Cleland and Spaulding 1992; Stine 2003). Increases in population, trade, and social complexity accompanied the more favorable climate, and evidence of restricted seasonal movement and larger settlements appears early in this period (Bettinger 1999; Sutton et al. 2007).

Newberry Period (3150 to 1350 B.P.)
The Newberry period reveals that significant cultural change had occurred across east-central California, focused on shifting settlement-subsistence systems and resource intensification. The scant data marking the first 1,500 years of this period suggest that the middle Holocene adaptive pattern of small, highly mobile groups remained unchanged (Gilreath 1995). Newberry period settlements near Bishop (Bettinger et al. 1984) and near Lone Pine (Basgall and McGuire 1988) reveal lowland settlements defined by midden accumulations, diversified artifact and ecofact assemblages, and house structures used as seasonal base camps by multiple households (Basgall and Delacorte 2012:2-9). Relatively large seasonal residential bases

© 2023 Kleinfelder

at Rose Spring (CA-INY-372, immediately south of the project area; see discussion below), and Portuguese Bench (CA-INY-2284, at the northwestern edge of Rose Valley) are also associated with this period. Temporary camps have been documented in both lowland and upland contexts, typified by a narrow range of hunting or plant procurement activities. Wide-ranging mobility patterns are indicated by high obsidian material variability and the abundant use of exotic toolstone. Settlement shifts appear organized along a north–south axis that traversed the length of Great Basin valleys, including Owens Valley (Basgall and Delacorte 2012:2-9; see Basgall 1989; Basgall and McGuire 1988; Delacorte 1990, 1999; Delacorte et al. 1995), with logistical forays made to nearby mountain areas.

The Newberry period was characterized by dart-point size projectile points in notched or eared (Elko), concave base (Humboldt), and small-stemmed (Gypsum) forms. In addition to diagnostic projectile points, assemblages included leaf-shaped points, rectangular-based knives, flake scrapers, T-shaped drills, and, occasionally, large scraper planes, choppers, and hammerstones (Warren 1984:416).

The early Newberry (c. 3150–2000 B.P.) archaeological record derives primarily from sites situated with reference to water, including lakeside areas near Olancha (Byrd and Hale 2003) and streamside deposits along McGee Creek (Basgall et al. 2003). Associated cultural assemblages stem from smaller deposits, houses are rare or absent, and occupational intensity remains similar to that inferred for the middle Holocene (Basgall and Delacorte 2012:2-9).

The late Newberry period (c. 2000–1350 B.P.) marks the emergence of a logistically and well-organized adaptive pattern that included regularized use of long-term residential bases; smaller, serially reoccupied transient camps; communal hunting/butchering localities; quarry and stone working camps; and hunting and gathering stations (Basgall and Delacorte 2011, 2012; Basgall and McGuire 1988; Bettinger 1989, 1991; Delacorte 1990, 1991, 1999; Delacorte and McGuire 1993; Delacorte et al. 1995; Gilreath 1995; Yohe 1992; Zeanah and Leigh 2002). Evidence is present for the construction of elaborate hunting facilities, well-built houses, and caches of non-portable or specialized gear. Lithic resources focused on obsidian, to the near absence of earlier (early and middle Holocene) materials, such as microcrystalline, basalt, and rhyolite.

Settlement and subsistence data reveal that specialized task groups made short- and long-term logistical forays to procure food resources. Animal remains provide evidence of a broadening subsistence base, with an emphasis on small and large mammal and waterfowl. Plant resources remain an important resource, as evidenced by large quantities of well-fashioned milling equipment and paleobotanical remains, including pine nuts and other seeds.

The north-to-south orientation of the Newberry period settlement and subsistence pattern is underscored by toolstone sourcing data. Basgall and Delacorte (2011) demonstrated that Newberry site components located north of Lone Pine contained almost equal proportions of Long Valley and Coso obsidian and suggest that these quarries mark the general northern and southern extent of the annual round. Obsidian exploitation of the Coso Volcanic field remained confined to lag quarries for the first half of the Newberry period, but after approximately 2300 B.P., the economic importance of obsidian exchange networks expanded dramatically. Obsidian production shifted to the mining of primary, high-quality seams in a limited number of quarries. Large bifacial cores and early-stage bifaces were produced at the quarries, and further reduced to biface blanks and tool preforms at off-quarry biface production sites. These bifaces were traded heavily with neighboring groups, and ultimately ended up being used by groups throughout southern California, particularly in Los Angeles County, Ventura County, the Kern Plateau, and the southern Sierra Nevada mountains (Gilreath and Hildebrandt 1997).

© 2023 Kleinfelder

Haiwee Period (1350 to 650 B.P.)

Smaller Rose Spring and Eastgate series projectile points appear in the archaeological record by the onset of the Haiwee period at 1350 B.P., signaling with the introduction of the bow and arrow to the region (Yohe 1998). Despite a generally deteriorating climate, further population growth and territorial constriction occurred during this time. By the end of the Haiwee period, local groups "…operated within annual ranges so small they were made sedentary virtually by default" (Bettinger 1999:49). Biface types prevalent during the Newberry period were largely replaced by abundant simple flake tools (Gilreath 1995:18). Obsidian, derived from the nearest source, remained the principal toolstone. Groundstone tools reveal a similar trend toward more casual, unshaped artifacts. Collectively, these artifact data suggest a shift to more expediently manufactured tool kits that were less functionally diverse and dependable, implying that Haiwee period peoples were less mobile and foraged more intensively around one or a few locales, lessening the need for tool transport (Gilreath 1995:18). A decline in, and subsequent abandonment of, logistical hunting camps implies that most hunting and other resource procurement were conducted from a few relatively fixed settlements (Gilreath 1995:18).

Until recently, archaeologists working in the region have generally accepted Bettinger's (1977, 1989) argument that nucleated semi-permanent settlements were established on the valley floor at the onset of the Haiwee period, and that this settlement pattern persisted until ethnographic times (Steward 1938). Using these settlements as a base, local populations staged logistically organized forays into the Sierra foothills to exploit piñon nuts (*Pinus monophylla*) and other tree crops. Other researchers (Basgall and Delacorte 2011; Delacorte and Basgall 2004) argue that the settlement patterns of Haiwee populations were more flexible and locally mobile, and that the sites that appear to be semi-permanent villages in the archaeological record likely represent shorter-term camps that were used repeatedly. Either way, evidence for resource intensification is prevalent, complementing the pattern of increased settlement centralization. Also noted have been high-cost extractive and storage strategies for pine nuts, ricegrass, and other seeds, as well as selective hunting of certain small mammals. It is likely that this increased reliance on relatively labor-intensive resources was as much the result of changes in social organization (including a shift from band to household organization and increased privatization of resources) as it was to population pressure and resource depletion (Bettinger 2015; Eerkens 2009; Eerkens and Spurling 2008). Both the introduction of the bow and arrow and the adoption of logistical foraging strategies may correspond with the expansion of Numic-speaking groups, which many researchers believe emanated from southeastern California about 1000 B.P. (Bettinger and Baumhoff 1982; Grayson 1993).

The overall number of quarries mined at Coso shrank greatly during the Haiwee period, yet Coso obsidian was still commonly used in the outlying areas, suggesting that a limited number of groups enjoyed relatively exclusive access to obsidian quarries and exchange networks (Gilreath and Hildebrandt 1997). The presence of marine shell ornaments, coupled with the localized trading of finely crafted chert bifaces manufactured and distributed between groups in northern Owens, Deep Springs, and other valleys, suggests increasingly complex intra- and inter-regional interaction (Bettinger 1989; Delacorte 1988, 1999; Gilreath 1995:18).

Marana Period (650 B.P. to Contact)

During the Marana period (650 B.P. to contact), the stemmed arrow points of the Haiwee period were replaced with Desert Side-notched and Cottonwood series projectile points. Resource intensification and specialization are suggested by an increased variety of tool forms, the use of new technologies such as ceramics and the mortar and pestle, the use of extensive storage facilities, and increased diversity in archaeological site locations. Seasonal forays for animal hunting and vegetal procurement (e.g., pine nut,

© 2023 Kleinfelder

seed crops, and roots) occurred from specialized sites in specific habitat environments. Settlement systems included both seasonally occupied temporary camps and semi-permanent winter encampments, the latter sited with reference to fuel, water, multiple habitat types for foraging, and access to cached resources such as seeds, pine nuts, and other crops (Basgall and Delacorte 2012:10-9). Evidence for east–west travel has been noted, focused on trans-valley movement of both people and materials, possibly in response to periodic failures or local resource shortfalls (Basgall and Delacorte 2011, 2012:10-10).

Adaptive trends characterizing the late prehistoric record note the establishment of larger, more sedentary populations, and the continuing expansion of Numic speakers across the Great Basin (Bettinger and Baumhoff 1982). Between 1000 and 600 B.P., obsidian exports from the Coso Volcanic Field appear to have essentially ended (Gilreath and Hildebrandt 1997). These changes may be related partly to a series of droughts that began about 1,000 years ago and affected much of the area east of the Sierra Nevada range (Stine 1994).

3.3 ETHNOGRAPHIC CONTEXT

The APE is located within the traditional tribal territory of the Tataviam, a Takic-speaking group of the Uto-Aztecan stock. Tataviam jurisdiction encompasses northern Los Angeles County, eastern Ventura County, and southern Kern County, with lineages tracing specifically to areas in present-day Simi Valley, Santa Clarita, San Fernando, western Antelope Valley, and sections of the Angeles National Forest (Fatehi 2017).

Tataviam lineage-villages, autonomous and self-governing groups of individuals who share a common ancestor, may have settled in the Los Angeles area early as 450 CE (Fernandeño Tataviam Band of Mission Indians 2023). Lineage-villages were comprised of difficult cultures and dialects and held multiples names that reflected the local linguistic diversity (Fatehi 2017). Tataviam tribal members would practice exogamy and speak the dialect of neighboring villages to strengthen and maintain relationships (Fernandeño Tataviam Band of Mission Indians 2023). The Quechao lineage-village, situated in the foothills of the San Gabriel Mountain range, was the closest lineage-village in proximity to the APE (ibid).

Tataviam people were forcibly recruited to Mission San Fernando del Espa ñ a beginning in 1797, where they were collectively labeled as Fernandeños, a name retained to this day (Fernandeño Tataviam Band of Mission Indians 2023). Although the Spanish sought to dismantle traditional lineage-villages and assimilate Native Americans into Spanish government and culture, Tataviam people continued to operate in their independent lineage-village identities: contact with non-mission associated relatives was maintained; ceremonial, martial, and social relationships were practiced under Spanish-given names; festivals and religious events were held; and traditional languages were spoken (Fatehi 2017).

Mexico's independence from Spain initiated the dismantling of the California missions and proposed land-distribution efforts intended to support the Native Americans at Mission San Fernando. The 1827 Alta California Governor José M. Echeandia introduced a plan that included the establishment of a town for emancipated Native Americans from Mission San Fernando; however, this plan was unsuccessful (Fatehi 2017). The Secularization Act of 1834 allowed Fernandeños to obtain ex-mission land and organize electoral village governments, but the plan was eliminated in 1835 (ibid). In 1843, 40 Fernandeño headmen petitioned for one square league of land from the Alta California Governor Manuel Micheltorena. The land grants received included Rancho Cahuenga (Burbank), Rancho El Escorpion (Chatsworth), Rancho Encino (Encino), and Rancho Tujunga (Tujunga), amounting to over 18,000 acres

© 2023 Kleinfelder

(Fernandeño Tataviam Band of Mission Indians 2023; Fatehi 2017). By 1845, Governor Pio Pico ignored the secularization regulations of prohibiting the sale of Native American land to private individuals and rented the land of the 40 Fernandeño headmen to private interests (Fatehi 2017). In the following decades, Tataviam attempted to defend their land claims in court but were largely unsuccessful. Combined with the government-sanctioned genocide, smallpox epidemics, and encroaching settlers, lineage-village communities eventually became "homeless squatters" on their own traditional territory (ibid).

In the late 19th century, United States federal agents acknowledged and worked with a group of San Fernando Mission Indians to prevent the further eviction and dispossession of lands (Fatehi 2017). The federal government made no immediate actions, and lineage-village communities continued to assemble as a coalition of lineages and create a formal government into the 1940s. The name of "San Fernando Mission Indians" eventually became the Fernandeño Tataviam Band of Mission Indians, a contemporary confederation of tribal lineages recognized today by the Los Angeles County government as sovereign nation. The Fernandeño Tataviam Band of Mission Indians submitted a full petition for federal recognition to the United States Office of Federal Acknowledgment in 2009 and has not yet received federal recognition.

3.4 HISTORICAL CONTEXT

The historic occupation of the project vicinity can be divided into several settlement periods: the Mission Period (A.D. 1769–1830), the Rancho Period (ca. A.D. 1830–1865), and the American Period (ca. A.D. 1865–present).

3.4.1 Mission Period (1769–1830)

Recorded history in this part of southern California began in the late eighteenth century with the expedition of Gaspar de Portolá up the coast in 1769. The first mission in the region, Mission San Gabriel, was established in 1771 (Engelhardt 1927). The earliest recorded passage of a European through the mountain area occurred in 1772, when Spanish soldier Pedro Fages crossed the San Bernardino Valley from south to north and exited via Cajon Pass in pursuit of deserters from the presidio at San Diego (Bolton 1931). The expeditions of Juan Bautista de Anza in 1774 and 1776 skirted the southern portion of the region (Bolton 1930). In 1776, Father Francisco Garcés, led by Mojave guides, traversed the desert from the Colorado River to the coast (Garcés 1900:246, 1967:38). The route that Garcés followed became known as the Mojave Trail. Mojave groups regularly traveled along the trail between river and coast during the historical period and apparently in prehistoric times as well.

Details regarding the closing years of the Mission Period are lacking, although it is known that a rising discontent among the scattered groups of non-mission Indians all the way to the Colorado River precipitated a series of attacks on mission facilities late in 1834. The attacks on the missions could not have come at a better time for the Mexican government. Newly independent from Spain, Mexico enacted a decree of secularization in 1833, taking mission properties out of the hands of the Catholic Church and the Spanish Crown. In 1834, the decree was enforced in California, and the missions became the property of the civil authorities. The net result of secularization and native uprisings in the area was the abandonment of the asistencia at San Bernardino and the effective end of missionary activity in the San Bernardino Valley (Beattie and Beattie 1939:33).

© 2023 Kleinfelder

Antelope Valley was first visited by Europeans in 1772 by a small force of Spanish soldiers under the command of Pedro Fages (Lajoie 2008). Notable California explorers Francisco Garcés, Jedediah Smith, Kit Carson, and John C. Fremont, traversed the Antelope Valley, but their explorations resulted in little change to the region.

3.4.2 Rancho Period (1830–1865)

When Mexico gained its independence from Spain in 1821, Alta California became part of the new country. Approaches to church control changed as government control devolved to Mexico City and to the Mexican territorial and state governors. It had never been the intention of the Spanish and the successor Mexican government that the missions would remain as permanent entities controlling the economy of the frontier areas (Weber 1982). With independence, the Mexican government began a process of secularization of mission properties that concluded in 1833. Missions were turned into parish churches, and regional commissions were established to dispose of the properties and resettle the Indians affiliated with the missions. Mexican government policy was to give mission properties and other unclaimed land to prominent citizens who would be required to build homes and facilities and develop the properties.

Following the departure of the Franciscans, a period of legal and forcible maneuvering ensued during which influential individuals attempted to gain control of the various ranchos. The period of California history known as the Rancho Period began as a class of wealthy landowners known as “rancheros” controlled the state. They built large ranches based on cattle hide and tallow production. Over much of the nineteenth century, the Antelope Valley continued to receive only the occasional hunters, drawn by its legendary herds of antelopes after which the valley was named, and travelers. Don Alexander and Phineas Banning's first stage line between Los Angeles and northern California ran through the southern edge of the valley (Lajoie 2008).

3.4.3 American Period (1865–Present)

In 1850, California became part of the United States and Los Angeles County was established as one of the original 27 counties in California. Cities in the county developed at unprecedented rates, and eventually the County ranked as the most populous county in California (United States Census Bureau 2023).

Dr. Darwin French’s party discovered silver in the Coso Mountains in 1860, in the northern China Lake Complex and in the Slate Ranges soon after (WM 2023). Soon, additional silver discoveries were made in the Slate Ranges. Not long after that, the nearby mountains teemed with miners. Gold was first discovered in 1876 in Acton, but it was the discovery of gold at Tropico Hill in Rosamond by Ezra Hamilton and Charles Graves, the Valley’s first African American postmaster, that started serious mining in the region (WM 2023).

The Southern Pacific Railroad connecting Los Angeles and San Francisco sparked the most growth in the Antelope Valley in 1876. Southern Pacific established a route through the valley, with a stop-off in Lancaster. Taking advantage of its location on the first railroad line in southern California, in 1884 Moses Langley Wicks, a prominent real estate developer who was active in many parts of the state, laid out the

© 2023 Kleinfelder

townsite of Lancaster on 640 acres, which he had purchased from the Southern Pacific and the U.S. government in a series of rather muddled transactions, not uncommon among early deals involving railroad land grants (Lajoie 2008). At first, settlers set up homesteads close to the rail center, then later moved farther into outlying areas. In 1874 the Western Hotel, the oldest building in the valley, was built, and it is now a historical museum in Lancaster (WM 2023).

During the great southern California land boom of the 1880s, Lancaster prospered, thanks to the abundance of artesian water in the vicinity. Within a year of its founding, downtown Lancaster had three general stores, a hardware store, three saloons, and the Lancaster House, a hotel built by Wicks in 1884. By 1886, the Los Angeles Times hailed Lancaster as "the business center of the Antelope Valley" (Lajoie 2008).

Generous seasonal rainfalls in the early 1890s made the valley an attractive spot for agricultural production, especially wheat and barley. Eventually, alfalfa would become the region's primary crop in the next century, so much so that "alfalfa is king" became the slogan for the agricultural interests in the valley. Beginning in 1895, however, several years of continuous drought all but destroyed Lancaster and other settlements in the Antelope Valley and forced nearly all settlers to abandon their land and leave the parched region (Lajoie 2008).

Antelope Valley settlements recovered slowly after the turn of the century, spurred in part by the construction of the local stretch of the Los Angeles Aqueduct around 1905 (Gurba 2005). Despite the urban progress, the impact of the Great Depression was ever-present, and as the returns on farming and the alfalfa crops declined, many local residents turned to mining, which, along with new utility companies, the railroad, and grain milling, helped support Antelope Valley through a difficult time (Lajoie 2008).

The 1930s saw the arrival of the aerospace industry in Antelope Valley. The Air Force started testing operations at Muroc Dry Lake. During World War II many people arrived to work at Muroc Air Field and the Marine Auxiliary Training Base in Mojave (WM 2023). The experimental "X-plane" program was launched at the Muroc Field in 1946, and a year later Chuck Yeager, flying an X-1 aircraft, became the first pilot to break the sound barrier. The facility was renamed the Edwards Air Force Base in 1949, in honor of Glen Edwards, a test pilot who was killed in a crash the previous year (Lajoie 2008).

3.4.4 History of Neenach

The APE is located east of Neenach, California. Neenach was first founded in the late 19th century by Danish settlers from Wisconsin. The town was named after Neenah, Wisconsin, but was misspelled resulting in its current spelling (Los Angeles Times 1991).

© 2023 Kleinfelder

4 BACKGROUND RESEARCH

The methods and results of the records search and historical map review are described in detail below.

4.1 RECORD SEARCH

An in-person records search of the APE and a 0.5-mile buffer around the APE was conducted on February 6, 2023, by Kleinfelder Archaeologist Gregorio Pacheco at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The purpose of the record search was to identify if any prehistory and/or historic-period cultural resources and studies had been previously documented in the study area to better understand the archaeological sensitivity of the area.

The SCCIC records search indicated that no previously recorded cultural resources or cultural resources studies were identified within the APE. Two previously recorded cultural resources (Table 2) and two cultural resources studies were identified within a 0.5-mile radius of the APE (Table 3).

TABLE 2: Previously Recorded Cultural Resources within 0.5-mile of the APE

Primary Number (No.)	Age	Description
P-19-190643 CA-LAN-190643	1914 – Post 1945	A site that includes historic road segments (currently California Highway 138 / Lancaster Blvd., running between Bailey and Neenach Substations) historic concrete culverts ("1931"). Square rebar noted.
P-19-004414 CA-LAN-004414	1914 – Post 1945	A site that includes a historic road segment (currently Avenue D / California Highway 138, extending from Lancaster Road to Sierra highway)

TABLE 3: Previous Studies within 0.5-mile of the APE

Report No.	Date	Author	Title
LA-10648	2010	James Schmidt	Archaeological Letter Report: Bailey-Neenach-Westpack 66 kV; No W.O.: Emergency Fire Damaged Pole Replacement Project, Antelope Valley Area, Los Angeles County, California
LA-12504	2011	Natalie Lawson and Clint Helton	Cultural Resources Survey of Southern California Edison Transmission Line Between Bailey Substation and Neenach Substation, Los Angeles County, California

© 2023 Kleinfelder

4.2 HISTORICAL MAP REVIEW

Kleinfelder reviewed historical maps depicting features such as towns, roads, buildings, and creeks to provide additional information regarding the potential for the presence of historic-era cultural resources within the APE. Historic maps are available at several online repositories, in particular the USGS repository, the David Rumsey Map Collection, the U.S. Department of the Interior Bureau of Land Management General Land Office (GLO) Records, and Historical Aerials. No corresponding maps were available from Historical Aerials. The following sources were consulted during the historical map review:

- Township 8N, Range 16W, Section 13, San Bernadino Meridian (GLO 1856)
- Township 8N, Range 16W, Section 13, San Bernadino Meridian (GLO 1873)
- Township 8N, Range 16W, Section 13, San Bernadino Meridian (GLO 1902)
- Tejon, Calif. 1:250000 (USGS 1903, edited 1948)
- Manzana, Calif. 1:24000 (USGS 1933)
- California Division of Highways, Los Angeles County (Rumsey 1935)
- Manzana, Calif. 1:24000 (USGS 1938, edited 1951)
- Historic Aerials of APE (Historic Aerials 1948, 1952,1959, 1963, 1965, 1971)
- Neenach School, Calif. 1:24,000 (USGS 1965, edited 1966)

4.2.1 Historical Map Review Results

The following summarizes the historical maps reviewed for the Project.

- The 1856 GLO Plat does not show any buildings, structures, or other locations of previous historic activities within the APE. A road labeled “Road to Fort Tejon” is depicted approximately 1.3 miles south of the APE.
- The 1873 GLO Plat (surveyed in 1855) does not show any buildings, structures, or other locations of previous historic activities noted within the APE. A road labeled “Road to Fort Tejon” is depicted approximately 1.3 miles south of the APE.
- The 1902 GLO Plat does not show any buildings, structures, or other locations of previous historic activities noted within vicinity of the APE.
- The 1903 USGS quadrangle shows no evidence of historically significant features. It shows 235th Street in its current alignment, but 230th Street is not present yet. In this map there is an unimproved road running diagonally from 235th Street to what is presently Highway 138, depicted as a light duty road.
- The 1933 USGS quadrangle shows 230th Street as an unimproved road of indetermined material that meets a light-duty road labeled “Avenue D” in the same alignment as modern Highway 138. The terrain is depicted as relatively flat at 2,825 feet above sea level.
- The 1935 Los Angeles County Map does not show any buildings, structures, or other locations of previous historic activities noted within the vicinity of the APE.
- The 1938 USGS quadrangle shows an unnamed intermittent stream located approximately 0.23 mile east of the APE. Highway 138, also labeled “Neenach Road” and “Avenue D,” and 230th Street are depicted in their current alignments. A series of structures, labeled “Gorrindo Ranch,” is located approximately 0.6 mile north of the APE.
- In the Historical Aerials (1948, 1952) no buildings, structures, or other locations of previous historic activities were noted within the APE.

© 2023 Kleinfelder

- The 1965 USGS quadrangle shows 230th Street as a light duty road and shows the two unimproved roads along the North and East boundaries of the APE. The map depicts two unlabeled buildings south of the Southern boundary of the APE.
- In the Historical Aerials (1959, 1963, 1965, 1971) there are two structures just outside of the southwest corner of the APE in progress until 1965, likely completed then. No other buildings, structures, or other locations of previous historic activities were noted within the APE.

© 2023 Kleinfelder

5 FIELD METHODS AND RESULTS

On February 21, 2023, Kleinfelder archaeologist David Sosa, M.A., RPA completed a pedestrian survey of the APE using 15-meter-spaced transects. Close inspection was given to all exposed ground soils and cut banks for the presence of archaeological materials. The APE was photographed using a high-resolution digital camera, and field observations were captured in written notes (Appendix E). Locational data were collected with Environmental Systems Research Institute Arc Collector application on Android. The APE was accessible by foot, and 100 percent of the APE was surveyed. Ground visibility was approximately 25 percent due to grass and shrub coverage. Disturbances from previous farming operations, grading, and modern materials were noted within the survey area.

5.1 Survey Results

One isolated chert flake was identified as a result of the survey. The isolate flake, 022123_DS_ISO1, is light tan in color, translucent in opacity, banded, and measures approximately 2.5 centimeters long, 1.5 centimeters wide, and 0.25 centimeter thick. A DPR 523 form was produced for this resource (Appendix F). The isolate lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated, singular event. Therefore, it is not eligible for the CRHR or NRHP under any criteria.

© 2023 Kleinfelder

6 NATIVE AMERICAN OUTREACH

Kleinfelder contacted the NAHC requesting a search of their Sacred Lands File (SLF) to identify if any sacred sites are located within the APE and to obtain a list of tribes affiliated with the region that may be able to provide additional information regarding any areas of tribal concern. An email response was received from NAHC on February 2, 2023, which indicated that the results of the SLF file search were negative. The NAHC provided a list of Native American tribes to contact who may have knowledge of cultural resources in the area. Kleinfelder distributed letters to the list of tribal contacts on February 10, 2023, requesting information on tribal cultural resources in or near the APE. A summary of the correspondence with the Native American tribes is provided below, and copies of correspondence are included in Appendix D.

Table 4. Native American Correspondence

Native American Contact Information	Date Certified Mail Sent	Date Follow-Up Email Sent	Responses/Comments
Fernandeno Tataviam Band of Mission Indians Rudy Ortega, Tribal President	02/10/2023	04/06/2023	The tribe requested an online intake form be completed on 4/17/2023. The online form was completed by Kleinfelder; The tribe responded that the APE is identified as having high buried site potential. Although there are no known Tribal Cultural Resources at the proposed Project site, there are several TCRs to the east and west of the site along West Avenue D. These are multicomponent sites indicative of habitation.
Morongo Band of Mission Indians Robert Martin, Chairperson	02/10/2023	04/06/2023	Emailed response on 05/08/23 stating the Project is not located within the boundaries of the ancestral territory or traditional use area of the Cahuilla and Serrano people.
Morongo Band of Mission Indians Ann Brierty, THPO	02/10/2023	04/06/2023	Emailed response on 05/08/23 stating the Project is not located within the boundaries of the ancestral territory or traditional use area of the Cahuilla and Serrano people.
San Fernando Band of Mission Indians Donna Yocum, Chairperson	02/10/2023	04/06/2023	No response received to date.
San Manuel Band of Mission Indians Jessica Mauck, Director of Cultural Resources	02/10/2023	N/A	Email response on 02/15/2023 stated the proposed project is not located near any known sensitive cultural resources.

© 2023 Kleinfelder

Serrano Nation of Mission Indians Mark Cochrane, Co-Chairperson	02/10/2023	04/06/2023	No response received to date.
Serrano Nation of Mission Indians Wayne Walker, Co-Chairperson	02/10/2023	04/06/2023	No response received to date.

© 2023 Kleinfelder

7 SENSITIVITY FOR BURIED RESOURCES

A desktop analysis of the APE was conducted to assess the potential for buried archaeological deposits. Kleinfelder has reviewed the APE for cultural resource sensitivity levels rated low, moderate, or high based on the results of the archival research, records search results, regional environmental factors, and historic and modern development.

7.1 SENSITIVITY FOR BURIED PREHISTORIC RESOURCES

The APE has a moderate level of disturbance from agricultural uses. No previously recorded prehistoric or tribal resources were identified during background research within the APE or vicinity, however, a single flake was identified during survey. The APE is also located in close proximiety to an intermittent drainage. The proximiety to a water source and presence of a prehistoric isolate within the APE indicates prehistoric activity it the area; Kleinfelder considers the APE to have a moderate sensitivity for buried prehistoric resources.

7.2 SENSITIVITY FOR BURIED HISTORIC PERIOD RESOURCES

Background research and a review of historic maps of the APE did not identify any buildings or structures within the APE. The only historical activity of note within the APE is the agricultural use noted on historic topographic maps (USGS 1958). No historic-era resources were identified the APE or the 0.5-mile radius. As such, Kleinfelder considers the APE to have a low sensitivity for buried historic-era resources.

© 2023 Kleinfelder

8 CONCLUSION

The cultural resource inventory of the APE included a review of the natural and cultural environment including the prehistory, ethnography, and history; a review of historic maps; record search results from the SCCIC; consultation with the NAHC; Native American correspondence; and a pedestrian survey. As a result of these efforts, one cultural resource was identified within the APE, a single isolated flake. The isolate lacks context with no associated materials, appears to have been displaced from the original location, and/or represents an isolated singular event and is thus recommended ineligible for inclusion in the NRHP and CRHR. Kleinfelder considers the APE to have a moderate sensitivity for buried prehistoric resources and a low sensitivity for buried historic-era cultural resources. No historic properties were identified within the APE during this study, as such Kleinfelder recommends a finding of no historic properties affected for this undertaking.

8.1 RECOMMENDATIONS

Kleinfelder recommends the following measures:

- A qualified archaeologist shall provide an archaeological tailboard to any construction crew working on site during ground disturbing activities.
- In the event archaeological resources are encountered during any ground-disturbing activities associated with the Project, then all ground-disturbing work at the location, plus within a reasonable buffer zone, must be immediately suspended. The approving County department shall be contacted, and a qualified professional archaeologist retained to analyze the significance of the find and formulate further mitigation (e.g., Project relocation, excavation plan, and protective cover) in consultation with culturally affiliated tribes or other descendant groups, where applicable.
- Pursuant to California Health and Safety Code §7050.5, if known or suspected Native American or other human remains are encountered, all ground-disturbing work must cease in the vicinity of the discovery, and the County Coroner contacted. The respectful treatment and disposition of remains and associated grave offerings shall be in accordance with PRC §5097.98. The applicant and successors in interest are ultimately responsible for ensuring compliance with this condition.
- In the event the Project design changes and ground disturbance is anticipated beyond the APE as it is currently defined, further surveys shall be conducted in those new areas to assess the presence of cultural resources. Any newly discovered or previously recorded cultural resources within the additional survey areas shall be recorded (or updated) on appropriate DPR 523-series forms. If eligible historic properties/historical resources are identified and avoidance of these resources is not feasible, then an evaluation and/or data recovery program shall be drafted and implemented.

© 2023 Kleinfelder

9 PREPARERES' QUALIFICATIONS

Kleinfelder Archaeologists Jessica Neal, Shelby Soares, and Alyssa Gelinas contributed to this report.

Ms. Neal has a Bachelor of Science degree in anthropology from Loyola University Chicago and a Master of Arts degree in Maritime Archaeology from the University of Southern Denmark. She is a registered professional archaeologist (RPA) (#17230) and a member of the Society for California Archaeology. She meets the Secretary of the Interior's Standards for prehistoric and historical archaeology. Ms. Neal has 9 years of experience in cultural resources management, including project management, personnel management, field survey, excavation and data recovery, laboratory analysis, collections management, and geographic information system applications in environmental planning. She has experience in preparation of archaeological research, built environment, and archaeological evaluations for inclusion in the NRHP and CRHR, and survey, testing, excavation, and monitoring reports pursuant to the requirements of CEQA, Section 106 of the NHPA, and the National Environmental Policy Act.

Ms. Soares has a Bachelor of Arts degree in evolutionary anthropology from the University of California Davis. She is a member of the Society for California Archaeology as well as a member of the Society for American Archaeology. Ms. Soares has worked for 1.5 years in cultural resources management with experience in vegetation management monitoring, field survey, field leading, excavation and data recovery, site identification, site recording, historical map reading/review, and report writing and editing.

Ms. Gelinas has a Bachelor of Arts degree in anthropology from the University of California Santa Cruz. She is a member of the Society for California Archaeology and the Santa Cruz Archaeological Society. Ms. Gelinas has 4.5 years of experience in cultural resources management. Her experience includes construction monitoring, collections management, Department of Parks and Recreation 523 forms preparation, excavation and data recovery, field survey, laboratory analysis, site identification and recording, and survey report preparation.

© 2023 Kleinfelder

10 REFERENCES

Aikens, C. Melvin

1978. Archaeology of the Great Basin. Annual Review of Anthropology 7:71-87.

Bacon, S. N., R. M. Burke, S. K. Pezzopane, and A. S. Jayko

2006. Last Glacial Maximum and Holocene Lake Levels of Owens Lake, Eastern California, USA. Quaternary Science Reviews 25:1264-1282.

Basgall, M. E.

1989. Obsidian Acquisition and Use in Prehistoric Central-Eastern California: A Preliminary Assessment. In Current Directions in California Obsidian Studies, edited by R. E. Hughes, pp. 111-126. Contributions of the University of California Archaeological Research Facility No. 48. Berkeley.

2000. The Structure of Archaeological Landscapes in the North-Central Mojave Desert. In Archaeological Passages: A Volume in Honor of Claude Nelson Warren, edited by J. S. Schneider, R. M. Yohe, II and J. K. Gardner, pp. 123-138. Western Center for Archaeology and Paleontology, Hemet, California.

2007. Prehistoric People in an Evolving Landscape: A Sample Survey of the Lake China Basin and its Implications for Paleoindian Land Use. Report on file, Epsilon Systems Solutions, Inc., San Diego, California.

Basgall, M. E., and K. R. McGuire

1988. The Archaeology of CA-INY-30, Prehistoric Culture Change in the Southern Owens Valley, California. (Project 09-Iny-395, P.M. 45.0/55.1; 09201-204200.) Prepared by Far Western Anthropological Research Group, Davis, California. Prepared for California Department of Transportation, District 9, Bishop, California.

Basgall, M. E., M. G. Delacorte, and M. C. Hall

1995. Fish Slough Side-notched Projectile Points: An Early Holocene Time Marker in the Western Great Basin. Current Research in the Pleistocene 12:1-4.

Basgall, M. E., and M. G. Delacorte

2011. Data Recovery Investigations at Six Archaeological Sites in South-Central Owens Valley, Inyo County, California. Archaeological Research Center, California State University, Sacramento. Submitted to California Department of Transportation, Bishop.

2012. Middle Archaic Cultural Adaptations in the Eastern Sierra Nevada: Data Recovery Excavations at CA-INY-1384/H, INY6249/H, INY-6250, and INY-6251/H. Archaeological Research Center, California State University, Sacramento. Submitted to California Department of Transportation, Bishop.

Basgall, M. E., M. G. Delacorte, and D. W. Zeanah

2003. An Archaeological Evaluation of Five Prehistoric Sites near Bishop, Inyo County, California (CA-INY-1384/H, INY-1386, INY-6249/H, INY-6250, and INY-6251/H): Results of the Ed

© 2023 Kleinfelder

Powers Rehabilitation Project. Report on file, California Department of Transportation, District 09, Bishop.

Beattie, George W., and Helen P. Beattie
1939. Heritage of the Valley: San Bernardino's First Century. San Pasqual Press, Pasadena, California.

Bettinger, R. L.
1977. Aboriginal Human Ecology in Owens Valley, Eastern California: Prehistoric Change in the Great Basin. American Antiquity 43:3–17.
1989. The Archaeology of Pinyon House, Two Eagles, and Crater Middens: Three Residential Sites in Owens Valley, California. Anthropological Papers of the American Museum of Natural History 67. New York.
1991. Aboriginal Occupations at High Altitude: Alpine Villages in the White Mountains of Eastern California. American Anthropologist 93:656-679.
1989.
1999. From Traveler to Processor: Regional Trajectories of Hunter-Gatherer Sedentism in the Inyo-Mono Region, California. In Fifty Years since Viru: Theoretical Advances and Contributions of Settlement Pattern Studies in the Americas, edited by B. R. Billman and G. M. Feinman, pp. 39-55. Smithsonian Institution Press, Washington, D.C.
2015. Orderly Anarchy: Sociopolitical Evolution in Aboriginal California. University of California Press, Berkeley.

Bettinger, Robert L., and Martin A. Baumhoff
1982. The Numic Spread: Great Basin Cultures in Competition. American Antiquity 47:485-503.

Bettinger, R.L., M.G. Delacorte, and K.R. McGuire
1984. Archaeological Excavations at the Partridge Ranch (CA-INY-2146), Inyo County, California. Far Western Anthropological Research Group, Inc., Davis, California. Report submitted to California Department of Transportation, Sacramento.

Bolton, Herbert E.
1930. California Expeditions. 5 vols. University of California Press, Berkeley.
1931. In the South San Joaquin Ahead of Garcés. California Historical Society Quarterly 10(3):211–219.

Bryan, A. L., and D. R. Tuohy
1999. Prehistory of the Great Basin/Snake River Plain to About 8,500 Years Ago. The Center for the Study of the First Americans, Corvallis.

Byrd, B. F., and M. Hale
2003. Lacustrine Lifestyles Along Owens Lake: NRHP Evaluation of 15 Prehistoric Sites for the Olancha/Cartago Four-Lane Project, US Route 395, Inyo County, California. Report on file, California Department of Transportation, District 09, Bishop.

© 2023 Kleinfelder

Campbell, Elizabeth W., and William H. Campbell
1935. The Pinto Basin Site: An Ancient Aboriginal Camping Ground in the California Desert. In Southwest Museum Papers, vol. 9, pp. 1-51. Southwest Museum, Los Angeles.

Cleland, J. H., and W. G. Spaulding
1992. An Alternative Perspective on Mojave Desert Prehistory. Society for California Archaeology Newsletter 26(6):1-6.

Davis, Emma Lou
1975. The "Exposed Archaeology" of China Lake, California. American Antiquity 40(1):39-53.

Delacorte, M. G.
1988. Room to Move: Environment, Demography and Adaptation in the Mono-Inyo Region of Eastern California. In Natural History of Eastern California and High-Altitude Research: White Mountain Research Station Symposium. Vol. 3, edited by C.A. Hall, Jr., V. Doyle-Jones, and B. Widawski, pp. 342-355. University of California, Los Angeles.
1990. Prehistory of Deep Springs Valley, Eastern California: Adaptive Variation in the Western Great Basin. Ph.D. dissertation, Department of Anthropology, University of California, Davis.
1991. Room to Move: Environment, Demography and Adaptation in the Mono-Inyo Region of Eastern California. In Natural History of Eastern California and High-Altitude Research. White Mountain Research Station Symposium Vol. 3, edited by C.A. Hall, Jr., V. Doyle-Jones, and B. Widawski, pp. 342-355. University of California, Los Angeles.
1999. The Changing Role of Riverine Environments in the Prehistory of the Central-Western Great Basin: Data Recovery Excavations at Six Prehistoric Sites in Owens Valley, California. Far Western Anthropological Research. Submitted to Caltrans, District 9, Bishop, California.

Delacorte, M. G., and K. R. McGuire
1993. Report of Archaeological Test Evaluations at Twenty-Three Sites in Owens Valley, California. Far Western Anthropological Research Group. Davis, California.

Delacorte, M. G., and M. E. Basgall
2004. Owens Valley Villages: Ethnographic and Late Prehistoric Reality. Paper presented at the 29th Biennial Great Basin Anthropological Conference, Sparks, Nevada.

Delacorte, M. G., M. C. Hall, and M. E. Basgall
1995. Final Report on the Evaluation of Twelve Archaeological Sites in the Southern Owens Valley, Inyo County, California. California Department of Transportation, Bishop.

Dillon, Brian D.
2002. California Palaeoindians: Lack of Evidence, or Evidence of a Lack? In Essays in California Archaeology: A Memorial to Franklin Fenenga, edited by W. J. Wallace and F. A. Riddell, pp. 111-128. University of California, Berkeley.

© 2023 Kleinfelder

Dorn, Ronald I., A. J. T. Jull, D. J. Donahue, T. W. Linick and L. J. Toolin
1990. Latest Pleistocene lake shore lines and glacial chronology in the Western Basin and Range Province, U.S.A.: insights from AMS radiocarbon dating of rock varnish and paleoclimatic implications. Palaeogeography, Palaeoclimatology, Palaeoecology 78:315-331.

Eerkens, J. W.
2009. Privatization of Resources and the Evolution of Prehistoric Leadership Strategies. In The Evolution of Leadership: Transitions in Decision Making from Small-Scale to Middle-Range Societies, edited by K. J. Vaughn, J. W. Eerkens, and J. Kantner, pp. 73-94. SAR Press, Santa Fe.

Eerkens, J. W., and A. M. Spurling
2008. Obsidian Acquisition and Exchange Networks: A Diachronic Perspective on Households in the Owens Valley. Journal of California and Great Basin Anthropology 28(2):111-126.

Eerkens, Jelmer W., Jeffrey S. Rosenthal, D. Craig Young, and Jay King
2007. Early Holocene Landscape Archaeology in the Coso Basin, Northwestern Mojave Desert, California. North American Archaeologist 28(2):87-112.

Engelhardt, Zephyrin
1927. San Gabriel Mission and the Beginnings of Los Angeles. Mission San Gabriel, San Gabriel, California.

Fatehi, Kimia
2017. Tribal Cultural Resources Management: A Case Study of the Fernandeño Tataviam Band of Mission Indians. Masters thesis, American Indian Studies, University of California, Los Angeles.

Fernandeño Tataviam Band of Mission Indians
2023. History. Accessed March 22, 2023 at https://www.tataviam-nsn.us/history/#00.

Garcés
1900. On the Trail of a Spanish Pioneer: The Diary and Itinerary of Francisco Garcés (Missionary Priest) in His Travels through Sonora, Arizona, and California, 1775–1776. 2 vols. Translated and edited by Elliott Coues. Francis P. Harper, New York.
1967. A Record of Travels in Arizona and California, 1775–1776. Translated by John Galvin. John Howell Books, Berkeley.

Gurba, Norma H.
2005 Images of America: Lancaster. Arcadia Publishing, Chicago and San Francisco.
.

Gilreath, A. J.
1995. Archaeological Evaluations of Thirteen Sites for the Ash Creek Project, Inyo County, California. Report submitted to the California Department of Transportation District 9, Bishop, California. Far Western Anthropological Research Group, Inc., Davis, California.

© 2023 Kleinfelder

Gilreath, Amy J., and William R. Hildebrandt
1997. Prehistoric Use of the Coso Volcanic Field 56. Contributions of the University of California Archaeological Research Facility, Berkeley.

Grayson, Donald K.
1993. The Desert's Past: A Natural History of the Great Basin. Smithsonian Institution Press, Washington, D.C.

Harrington, M. R.
1957. A Pinto Site at Little Lake, California. In Southwest Museum Papers. vol. 17. Southwest Museum, Los Angeles.

Historic Aerials Online
1948. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1952. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1959. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1963. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1965. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer
1971. Historic Aerial of Project Area. By NetRonline. Historic Aerials: Viewer

Jenkins, Dennis L., and Claude N. Warren
1984. Obsidian Hydration and the Pinto Chronology in the Mojave Desert. Journal of California and Great Basin Anthropology 6(1):44-60.

Justice, Noel D.
2002. Stone Age Spear and Arrow Points of California and the Great Basin.Indiana University Press, Bloomington.

Lajoie, Glenn
2008. Historic-Period Building Survey Lancaster Downtown Specific Plan City of Lancaster Los Angeles County, California.

Los Angeles Times
1991 L.A.’s Outback : Neenach : Named after a Wisconsin hometown--but misspelled.

Rumsey (David Rumsey Map Collection)
1935. Los Angeles County Map.

Steward, Julian H.
1938. Basin-Plateau Aboriginal Sociopolitical Groups. United States Government Printing Office, Washington, D.C.

Stine, Scott
1994. Extreme and Persistent Drought in California and Patagonia During Medieval Time. Nature 369(6481):546-549.

© 2023 Kleinfelder

2003. Environmental History of Late Holocene Owens Lake. In Lacustrine Lifestyles Along Owens Lake: NRHP Evaluation of 15 Prehistoric Sites for the Olancha/Cartago Four-Lane Project, US Route 395, Inyo County, California. Report on file, California Department of Transportation, District 09, Bishop.

Sutton, Mark Q.
1996. The Current Status of Archaeological Research in the Mojave Desert. Journal of California and Great Basin Anthropology 18(2):221-257.

Sutton, Mark Q., Mark E. Basgall, Jill K. Gardner and Mark W. Allen
2007. Advances in Understanding Mojave Desert Prehistory. In California Prehistory: Colonization, Culture, and Complexity, edited by T. L. Jones and K. A. Klar, pp. 229-245. Alta Mira, Lanham, Maryland.

United States Census Bureau
2023. Quickfacts. Population, Census, April 1, 2010. Accessed March 23, 2023 at https://www.census.gov/quickfacts/geo/chart/losangelescountycalifornia/PST045222.

United States Department of Agriculture (USDA)
2023. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed March 22, 2023 at https://websoilsurvey.sc.egov.usda.gov/app/.

United States Department of the Interior: Bureau of Land Management (GLO Plat)
1873. Township 15 North Range 12 West, Mount Diablo Meridian. GLO Plat.
1856. Township 15 North Range 12 West, Mount Diablo Meridian. GLO Plat.
1902. Township 15 North Range 12 West, Mount Diablo Meridian. GLO Plat.

United States Geological Survey (USGS)
1903. Tejon, Calif. 1:250,000 scale topographic quadrangle.
1933. Manzana, Calif. 1:24,000 scale topographic quadrangle.
1938. Manzana, Calif. 1:24,000 scale topographic quadrangle.
1965. Neenach School, Calif. 1:24,000 scale topographic quadrangle.

Warren, Claude N.
1984 The Desert Region. In California Archaeology. Pp. 339-430: Academic Press, Inc.

Warren, Claude N., and Robert H Crabtree
1986. Prehistory of the Southwest Area. In Handbook of North American Indians, Vol. 11: Great Basin, edited by W. C. Sturtevant, pp. 183-193. Smithsonian Institution, Washington, D.C.

Waste Management (WM)
2023 History of the Antelope Valley. Accessed April 2, 2023 at https://www.wm.com/location/california/antelope-valley/la-county/community/history.

© 2023 Kleinfelder

Yohe, Robert M., II

1992. A Clovis-Like Point from the Rose Spring Site (CA-INY-372). Journal of California and Great Basin Anthropology 14(2).

1998. The Introduction of the Bow and Arrow and Lithic Resource Use at Rose Spring (CaIny-372). Journal of California and Great Basin Anthropology 20(1):26-52.

Zeanah, D.W., and A. T. Leigh

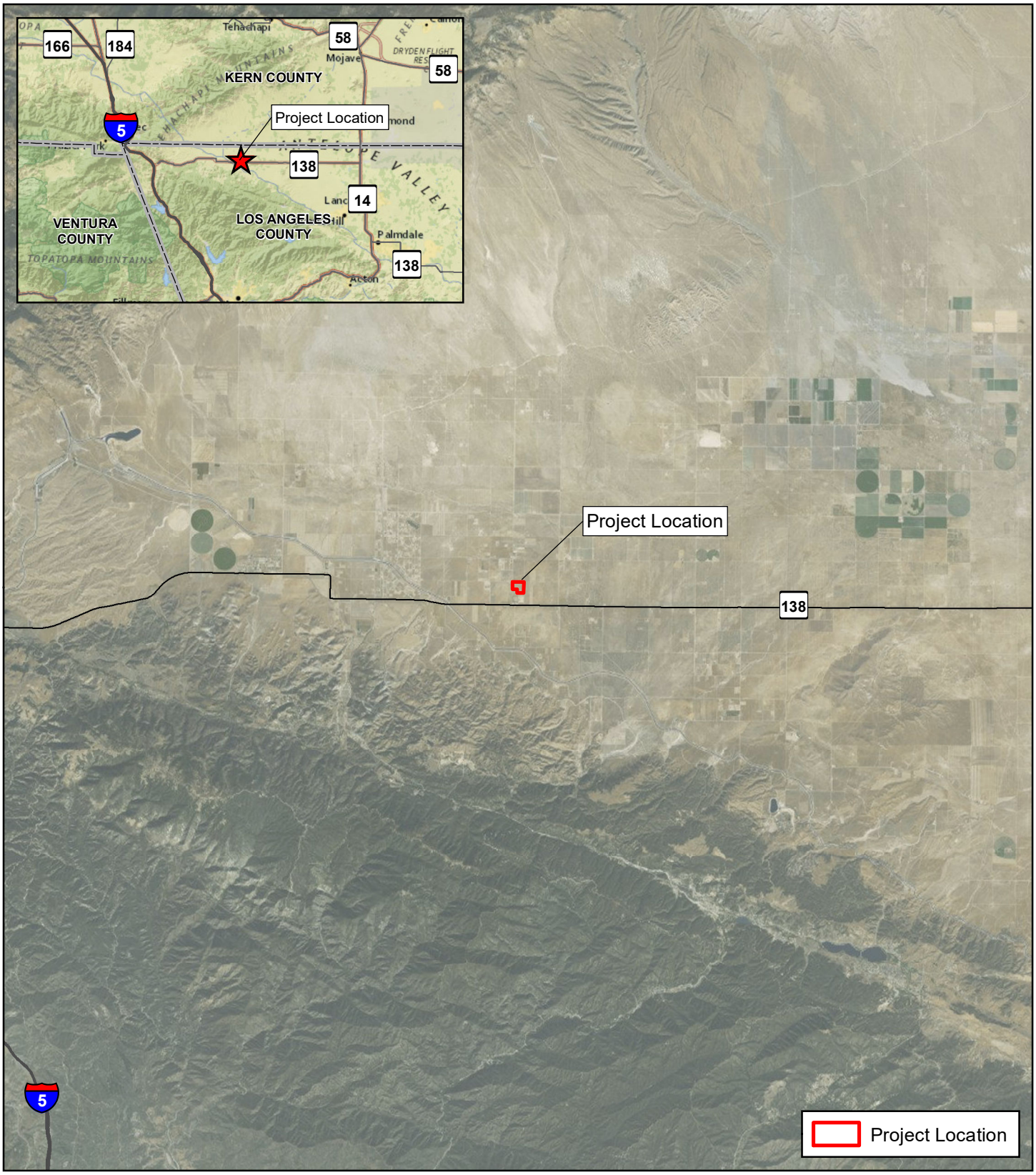
2002. Final Report on Phase II Investigations at 26 Archaeological Sites for the Aberdeen-Blackrock Four-Lane Project on Highway 395, Inyo County, California. Pacific Legacy, Inc., Cameron Park, California and Archaeological Research Center, California State University, Sacramento. Report submitted to California Department of Transportation, Central California Cultural Resources Branch, Fresno, California.

© 2023 Kleinfelder

APPENDIX A

Project Maps

© 2023 Kleinfelder





Source: Bing Maps

0 1.5 3 Miles

0 2.5 5 Kilometers

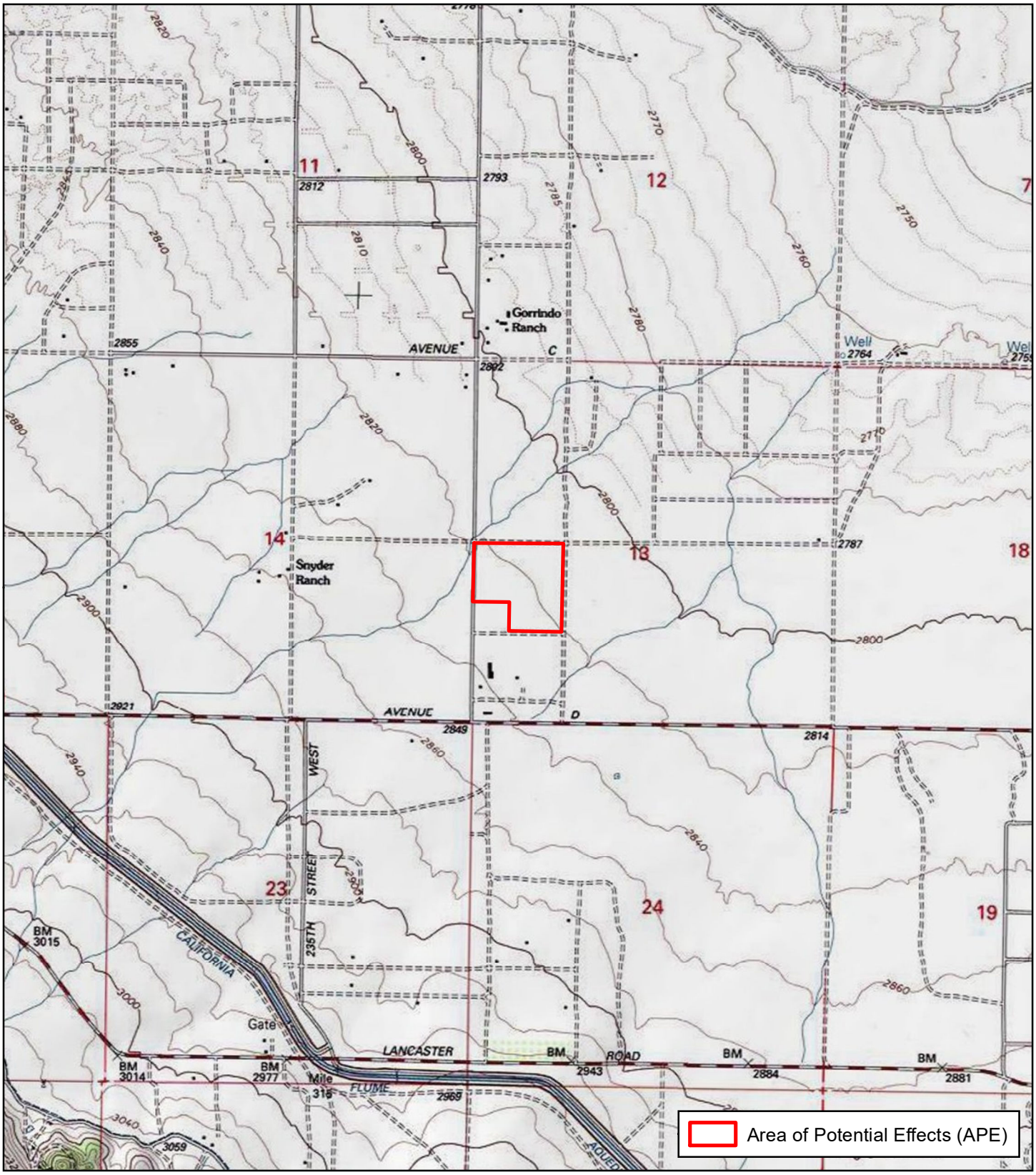
N

Scale 1:190,080
1 in = 3 miles

Regional Vicinity
RPCA 230th Street Solar Project
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

Created By: JHiatt Document Path: \\azrgisstorp03\GIS_Projects\Client\GANDA\Renewable_Properties\20234230_RCPA_230th_street\CULT_230thStreet_RegionalVicinity.mxd





Source: Bing Maps

0 1,000 2,000 Feet

0 300 600 Meters

N

Scale1:24,000

1 in = 2,000 feet

Area of Potential Effects (APE)

RPCA 230th Street Solar Project

Los Angeles County, California

KLEINFELDER

Bright People. Right Solutions.

Created By: JHiatt Document Path: \\azrgisstorp03\GIS_Projects\Client\GANDA\Renewable_Properties\20234230_RCPA_230th_street\CULT_230thStreet_ProjectArea.mxd





Source: Bing Maps

0 200 400 Feet

0 50 100 Meters

N

Scale 1:4,800
1 in = 400 feet

Survey Results
RPCA 230th Street Solar Project
Los Angeles County, California

KLEINFELDER
Bright People. Right Solutions.

APPENDIX B

Records Search Results

© 2023 Kleinfelder

Report Detail: LA-10648

RCPA 230th Street

Identifiers

Report No.: LA-10648
Other IDs:
Cross-refs:

Citation information

Author(s): Schmidt, James
Year: 2010
Title: Archaeological Letter Report: Bailey-Neenach-Westpack 66kV; W.O.: Emergency Fire Damaged Pole Replacement Project, Antelope Valley Area, Los Angeles County, California
Affliliation: Compass Rose Archaeological, Inc.
No. pages: 3
No. maps:
Attributes: Archaeological, Field study
Inventory size:
Disclosure: Not for publication
Collections: No

General notes

Associated resources

No. resources: 0
Has informals:

Location information

County(ies): Los Angeles
USGS quad(s): NEENACH SCHOOL
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	10/6/2010	agarcia
Last modified:	10/6/2010	agarcia

IC actions:
Record status:

Report Detail: LA-12504

RCPA 230th Street

Identifiers

Report No.: LA-12504
Other IDs:
Cross-refs:

Citation information

Author(s): Lawson, Natalie
Year: 2011
Title: Cultural Resources Survey of Southern California Edison Transmission Line Between Bailey Substation and Neenach Substation, Los Angeles County, California
Affliliation: CH2M Hill
No. pages: 28
No. maps:
Attributes: Archaeological, Field study
Inventory size:
Disclosure:
Collections:

General notes

Associated resources

Primary No.	*Trinomial*	*Name*
P-19-000990	CA-LAN-000990H	OLD RIDGE ROUTE
P-19-002105	CA-LAN-002105H	LOS ANGELES AQUEDUCT
P-19-004154	CA-LAN-004154H	East Branch of the California Aq
P-19-101046		IF-1
P-19-101047		IF-2
P-19-101048		IF-3
P-19-101049		IF-4
P-19-101050		Isolated Find, M-1
P-19-190643		Highway 138, Lancaster Blvd

No. resources: 9
Has informals:

Location information

County(ies): Los Angeles
USGS quad(s): FAIRMONT BUTTE, LA LIEBRE RANCH, LEBEC, NEENACH SCHOOL
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	3/28/2014	lnoyes
Last modified:	3/28/2014	lnoyes

IC actions:
Record status:

Resource Detail: P-19-000643

Identifying information

Primary No.: P-19-000643
Trinomial: CA-LAN-000643
Name: Van Norman #8
Other IDs:

Type	*Name*
Resource Name	Van Norman #8
Other	V.N. #8

Cross-refs: Is an element of district 19-175538

Attributes

Resource type: Site
Age: Prehistoric
Information base: Survey
Attribute codes: AP02 (Lithic scatter); AP15 (Habitation debris)
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

ADOE

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/28/1974	KELLY, GATES, BENTE,		
1/1/1991	R. Wlodarski, J Budd		Update Map extracted from 19-000642.

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
LA-00051	1974	Cultural Resources of Los Angeles Reservoir, City of Los Angeles	Northridge Archaeological Research Center, CSUN
LA-02517	1991	A Phase 1 Archaeological Study for Eight Areas Proposed for the New Los Angeles Police Training Academy, and Driver Training Facility, City of Los Angeles County, California	Historical, Environmental, Archaeological, Research, Team
LA-03289	1990	Mobil M-70 Pipeline Replacement Project Cultural Resource Survey Report for Mobil Corporation	Dames & Moore
LA-04089	1974	(Duplicate of LA-51) Cultural Resources of Los Angeles Reservoir, City of Los Angeles	Northridge Anthropological Research Center
LA-10756	2010	A Cultural Resources Overview and Preliminary Assessment of the Pacoima/Panorama City Redevelopment Plan Amendment/Expansion Project Area, Los Angeles County, California	McKenna, et al.
LA-11606	2011	Phase I Cultural Resources Assessment, Sylmar Ground Return Replacement Project, Los Angeles County, California	BonTerra Consulting
LA-11664	2011	Cultural Resource Records Search and Site Survey, AT&T Site LA0609 (44468) I-5 FWY/I-405 Fwy Interchange 12000 North Blucher Avenue, Granada Hills, Los Angeles County, California 91344	ACE Environmental
LA-11818	2012	Phase I Cultural Resources Assessment for the Van Norman Complex Water Quality Improvement Project City of Los Angeles, California	AECOM

Resource Detail: P-19-000643

Location information

County: Los Angeles
USGS quad(s): SAN FERNANDO
Address:
PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	5/1/2008	jay	
Last modified:	9/4/2019	sstjames	
IC actions:	*Date*	*User*	*Action taken*
	5/1/2008	jay	Appended records from Encodent database.

Record status: Verified

Resource Detail: P-19-004414

Identifying information

Primary No.: P-19-004414

Trinomial: CA-LAN-004414H

Name: HWY 138 Archaeological Site / Ave D, SRI-10016

Other IDs:

Type	*Name*
Resource Name	HWY 138 Archaeological Site / Ave D, SRI-10016
Other	Avenue D
Other	Highway 138
Other	SRI-10016

Cross-refs: Physically overlaps or intersects 19-000990
Physically overlaps or intersects 19-004616
Physically overlaps or intersects 19-004617
Physically overlaps or intersects 19-190643

Attributes

Resource type: Site

Age: Historic

Information base: Survey, Other

Attribute codes: AH04 (Privies/dumps/trash scatters); AH07 (Roads/trails/railroad grades)

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/17/2013	Teresa Terry	Statistical Research, Inc	
6/6/2014	W. Blumel	ECORP	Update
2/1/2016	Lauren Downs	AECOM	Update

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
LA-13257	2017	CULTURAL RESOURCES SURVEY REPORT FOR THE PROPOSED SOUTHERN CALIFORNIA EDISON COMPANY'S ANTELOPE-MAGUNDEN NO. 2 TRANSMISSION LINE RATING REMEDIATION PROJECT, KERN COUNTY, CALIFORNIA	AECOM

Location information

County: Los Angeles

USGS quad(s): FAIRMONT BUTTE, LA LIEBRE RANCH, LEBEC, LITTLE BUTTES, NEENACH SCHOOL, ROSAMOND

Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
Hwy 138	Lancaster		
Avenue D	Lancaster		

PLSS:

UTMs:

Management status

Resource Detail: P-19-004414

Database record metadata

	Date	User	
Entered:	4/10/2014	mgalaz	
Last modified:	7/26/2017	mgalaz	
IC actions:	*Date*	*User*	*Action taken*
	9/1/2015	mgalaz	Updated
	7/26/2017	mgalaz	Updated
Record status:	Verified		

APPENDIX C

Native American Heritage Commission Results

© 2023 Kleinfelder

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
[Vacant]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 2, 2023

Jessica Neal
Kleinfelder

Via Email to: jneal@kleinfelder.com

Re: 230th St Solar Project, Los Angeles County

Dear Ms. Neal:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
2/2/2023

Fernandeno Tataviam Band of Mission Indians
Rudy Ortega, Tribal President
1019 Second Street, Suite 1 — Tataviam
San Fernando, CA, 91340
Phone: (818) 837 - 0794
Fax: (818) 837-0796
thcp@tataviam-nsn.us

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Vanyume
Phone: (503) 539 - 0933 — Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

San Manuel Band of Mission Indians
Jessica Mauck, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 230th St Solar Project, Los Angeles County.

APPENDIX D

Native American Coordination

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Rudy Ortega, Tribal President
Fernandeno Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, CA, 91340
Phone: (818) 837 - 0794
Fax: (818) 837-0796
thcp@tataviam-nsn.us

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Ortega,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

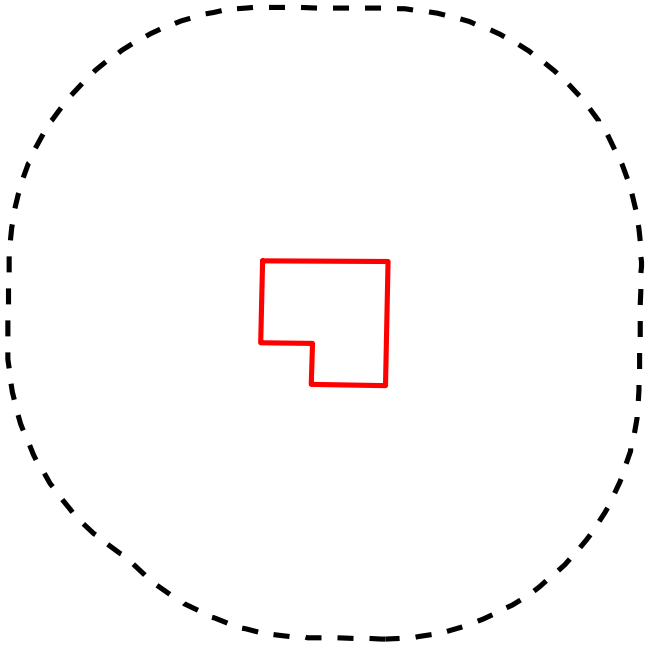
Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder



Half-mile Search Radius

Area of Potential Effects (APE)

Copyright © 2013 National Geographic Society, Esabed



USGS 7.5' Quad: NEENACH SCHOOL (1995)
Legal Description: T02N, R16W SEC 13

0 1,000 2,000 Feet
0 300 600 Meters

N

Scale 1:24,000
1 Inch = 2,000 Feet

Record Search
RCPA 230th Street
Los Angeles County, California



February 10, 2023
Kleinfelder Project No.: 20234230.001A

Ann Brierty, THPO
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Ms. Briety,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Robert Martin, Chairperson
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Martin,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Donna Yocum, Chairperson
San Fernando Band of Mission Indians
P.O. Box 221838
Newhall, CA, 91322
Phone: (503) 539 - 0933
Fax: (503) 574-3308
ddyocum@comcast.net

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mrs. Yocum,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Jessica Mauck, Director of Cultural Resources
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mrs. Mauck,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Mark Cochrane, Co-Chairperson
Serrano Nation of Mission Indians
PO Box 343
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Cochrane,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

February 10, 2023
Kleinfelder Project No.: 20234230.001A

Wayne Walker, Co-Chairperson
Serrano Nation of Mission Indians
P. O. Box 343
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

PROJECT: **Cultural Resources Survey and Assessment for the 230th St Solar Project**
Los Angeles County, California

Dear Mr. Walker,

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

KLEINFELDER

Sincerely,

Jessica Neal

Jessica Neal, Senior Archaeologist

Attachment: Project Location Map

© 2023 Kleinfelder

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6764 92

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6764 41

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Donna Yocum, Chairperson
San Fernando Band of Mission Indians
Po Box 221838
Newhall CA 91322-1838

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6933 69

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6933 26

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Jessica Mauck, Dir of Cultural Resources
San Manuel Band of Mission Indians
26569 Community Center Dr
Highland CA 92346-6712

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6346 14

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6346 56

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Rudy Ortega, President
Fernandeno Tataviam Band Mission Indians
1019 2nd St
San Fernando CA 91340-2916

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6412 30

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6412 72

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Mark Cochrane, Co-Chairperson
Serrano Nation of Mission Indians
Po Box 343
Patton CA 92369-0343

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6403 18

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6403 60

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Wayne Walker, Co-Chairperson
Serrano Nation of Mission Indians
Po Box 343
Patton CA 92369-0343

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6443 85

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6443 34

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Robert Martin, Chairperson
Morongo Band of Mission Indians
12700 Pumarra Rd
Banning CA 92220-6977

Postmark Here

U.S. Postal Service
Certified Mail Receipt

OUTBOUND TRACKING NUMBER
9414 7118 9956 2116 6109 16

RETURN RECEIPT TRACKING NUMBER
9490 9118 9956 2116 6109 67

FEES

Postage per piece	$0.600
Certified Fee	$4.150
Return Receipt Fee	$3.350
Total Postage & Fees:	**$8.100**

ARTICLE ADDRESS TO:

Ann Brierty, THPO
Morongo Band of Mission Indians
12700 Pumarra Rd
Banning CA 92220-6977

Postmark Here

From: Mr. Bonnie Bryant
To: Jessica Neal
Cc: Ryan Nordness
Subject: Renewable Properties and RPCA Solar 7, LLC small-scale utility solar generating facility
Date: Wednesday, February 15, 2023 1:41:32 PM

External Email

Hello Ms. Neal,
Thank you for reaching out to the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians) concerning the proposed project area. YSMN appreciates the opportunity to review the project documentation received by the Cultural Resources Management Department on February 13, 2023. The proposed project is not located near any known sensitive cultural resources. Thank you again for your correspondence, if you have any additional questions or comments please reach out to me at your earliest convenience.

Respectfully,
Mr. Bonnie Bryant
Cultural Resource technician
San Manuel Band of Mission Indians
Bonnie.Bryant@sanmanuel-nsn.gov

Mr. Bonnie Bryant
Cultural Resources Tech
Bonnie.Bryant@sanmanuel-nsn.gov
O:(909) 864-8933 x 50-2033
M:(909) 633-6615
26569 Community Center Dr Highland, California 92346

From:	Tribal Historic Preservation Office
To:	Jessica Neal
Cc:	Ann Brierty; Laura Chatterton; Joan Schneider
Subject:	Kleinfelder 230th Street Solar Project
Date:	Monday, May 8, 2023 5:57:49 PM
Attachments:	Kleinfelder 230th Solar Project 8May23.pdf

External Email

Good evening Ms. Neal,

Thank you for notifying the MBMI about this project. MBMI encourages your consultation with tribes more closely associated with the lands upon which the project is located. Please see our attached letter.

Respectfully,

Laura Chatterton
Cultural Resource Specialist
Tribal Historic Preservation Office
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220
O: (951) 755.5256
M: (951) 663.7570

CONFIDENTIALITY: This e-mail may contain Privacy Act Data/Sensitive Data which is intended only for the use of the individual(s) to whom it is addressed. It may contain information that is privileged, confidential, or otherwise protected from disclosure under applicable laws. If you are not the intended recipient, you are hereby notified that any distribution or copy of this email is strictly prohibited.

The information contained in this communication is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, or distribution of this information is strictly prohibited and may be unlawful.

For your safety, the contents of this email have been scanned for viruses and malware.

TRIBAL HISTORIC PRESERVATION OFFICE

VIA ELECTRONIC MAIL

jneal@kleinfelder.com

Jessica Neal
Senior Archaeologist
Kleinfelder
2882 Prospect Park Drive Suite 200
Rancho Cordova CA 95603

MORONGO BAND OF MISSION INDIANS
A SOVEREIGN NATION

May 8, 2023

Re: 230th Street Solar Project Los Angeles County, CA

The Morongo Band of Mission Indians (Tribe/MBMI) Tribal Historic Preservation Office received your letter regarding the above referenced project on February 22, 2023. The proposed Project is not located within the boundaries of the ancestral territory or traditional use area of the Cahuilla and Serrano people of the Morongo Band of Mission Indians.

Thank you for notifying the MBMI about this project. MBMI encourages your consultation with tribes more closely associated with the lands upon which the project is located.

Respectfully,

Bernadette Ann Brierty

Bernadette Ann Brierty
Tribal Historic Preservation Officer
Morongo Band of Mission Indians

CC: Morongo THPO

From: Sarah Brunzell
To: Jessica Neal
Subject: Re: 230th St Solar Project
Date: Monday, April 17, 2023 1:19:14 PM
Attachments: image002.png
image003.png
Outlook-1sbthb0g.png

External Email

Good afternoon Ms. Neal,

Please submit your request via our mandatory digital project intake form. You will start at Section 1C:

https://www.tataviam-nsn.us/consultation-application/

Kind Regards,

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You.

Sarah Brunzell
Manager
Cultural Resources Management Division
Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, California 91340
Office: (818) 837-0794
Cell: 310-913-4838
Website: http://www.tataviam-nsn.us



"AcknowledgeRent.org" is a tangible way for the residents of northern Los Angeles County to make meaningful land acknowledgements through contributions to the Fernandeño Tataviam Band of Mission Indians. Through AcknowledgeRent, people who reside or work on our homelands can help undo the harm caused by the theft of a land base that causes ongoing ramifications for this community. Visit the link to learn more!

From: Jessica Neal <JNeal@kleinfelder.com>
Sent: Thursday, April 6, 2023 9:52 AM
Subject: 230th St Solar Project

[CAUTION] EXTERNAL Email. Exercise caution.

Good Morning,

I am following up regarding the 230th St Solar Project.

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

Jessica Neal, M.A., RPA
Cultural Resources Group Manager
Senior Archaeologist

2882 Prospect Park Dr., Suite 200
Rancho Cordova, California 95670
m| 618-771-6093

From:	Sarah Brunzell
To:	Jessica Neal
Subject:	Re: 230th St Solar Project
Date:	Friday, May 26, 2023 8:42:31 AM
Attachments:	image002.png image003.png Outlook-1sbthb0g.png Outlook-11vji3wk.png

External Email

Good afternoon Ms. Neal,

Thank you for completing the project intake form. An extensive geoarchaeological assessment which encompassed several cities, including Lancaster, was provided to the Fernandeño Tataviam Band of Mission Indians in 2017. The assessment identified a large portion of the city of Lancaster as having both high and extremely high buried site potential. The proposed Project located at 230th Street is within the area identified as having high buried site potential. Although there are no known Tribal Cultural Resources at the proposed Project site, there are several TCRs to the east and west of the site along West Avenue D. These are multi component sites indicative of habitation.

Kind Regards,

Please submit all proposed Projects via our Mandatory Digital Project Intake Form:
https://www.tataviam-nsn.us/project-intake/

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You.

Sarah Brunzell
Manager
Cultural Resources Management Division
Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians
1019 Second Street
San Fernando, California 91340
Office: (818) 837-0794
Website: http://www.tataviam-nsn.us

From: Sarah Brunzell <Sarah.Brunzell@tataviam-nsn.us>
Sent: Monday, April 17, 2023 1:19 PM
To: Jessica Neal <JNeal@kleinfelder.com>
Subject: Re: 230th St Solar Project

Good afternoon Ms. Neal,

Please submit your request via our mandatory digital project intake form. You will start at Section 1C:

https://www.tataviam-nsn.us/consultation-application/

Kind Regards,

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You.

Sarah Brunzell
Manager
Cultural Resources Management Division
Tribal Historic and Cultural Preservation Department

Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, California 91340
Office: (818) 837-0794
Cell: 310-913-4838
Website: http://www.tataviam-nsn.us

"AcknowledgeRent.org" is a tangible way for the residents of northern Los Angeles County to make meaningful land acknowledgements through contributions to the Fernandeño Tataviam Band of Mission Indians. Through AcknowledgeRent, people who reside or work on our homelands can help undo the harm caused by the theft of a land base that causes ongoing ramifications for this community. Visit the link to learn more!

From: Jessica Neal <JNeal@kleinfelder.com>
Sent: Thursday, April 6, 2023 9:52 AM
Subject: 230th St Solar Project

[CAUTION] EXTERNAL Email. Exercise caution.

Good Morning,

I am following up regarding the 230th St Solar Project.

Renewable Properties, LLC and RPCA Solar 7, LLC., proposes to develop a small-scale utility solar generating facility. The Project will develop a small-scale utility solar generating project on approximately 29-acres of a 40-acre parcel. The project will generally consist of the installation of solar modules and string inverters mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the arrays will be no more than 8 feet tall. Ground disturbance is anticipated to extend up to 3 feet below surface for trenching and 8 feet below surface for pile driving. Upon completion the project will be operated remotely and will not require dedicated parking facilities.

The project is located on the Neenach School, CA 7.5' Quadrangle (1995) 1:24,000, Township 02N, Range 16W, SEC 13; (please see attached Project Location map).

A records search at the South-Central Coastal Information Center identified zero previously recorded cultural resources within the Project area and two previously recorded resources within a half-mile radius of the Project area. A search of the Sacred Lands file by the Native American Heritage Commission (NAHC) was conducted on February 2, 2023; the search results were negative. If there are sensitive cultural resources on or near the proposed project locations that could be impacted by construction activities, please advise us accordingly.

If you have information or specific concerns you would like considered during Renewable Properties' planning, please contact me at (618) 771-6093 or by email at jneal@kleinfelder.com.

Thank you very much for your time and effort.

Jessica Neal, M.A., RPA
Cultural Resources Group Manager
Senior Archaeologist

APPENDIX E

Survey Photographs

© 2023 Kleinfelder



Overview of APE, facing west.



Overview of APE, facing north.



Overview of APE, facing east.



Overview of APE, facing south.

APPENDIX F

Department of Parks and Recreation Forms

© 2023 Kleinfelder

State of California - The Resources Agency DEPARTMENT OF PARKS AND RECREATION	Primary # HRI #
PRIMARY RECORD	Trinomial **NRHP Status Code**
Other Listings Review Code	Reviewer Date

 Resource Name or #: 0212123-DS-ISO1

P1. Other Identifier: N/A

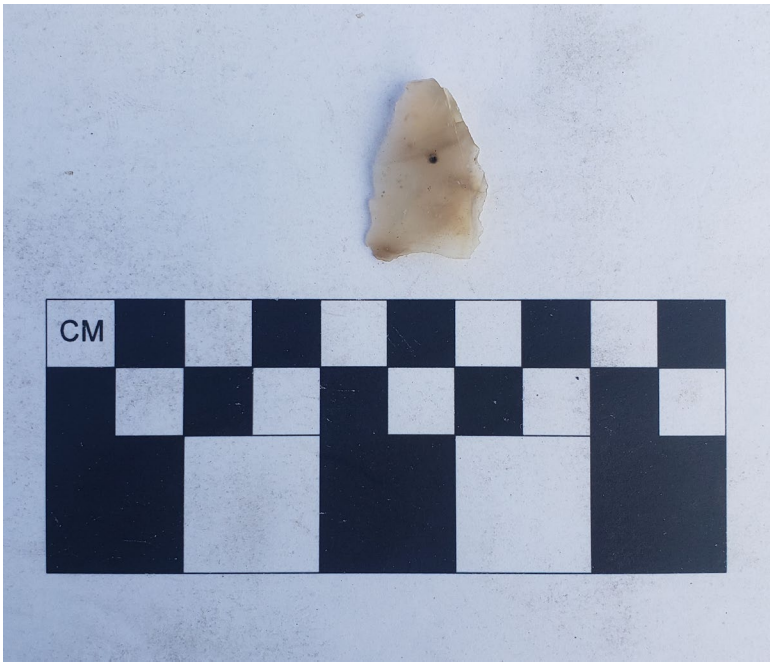
P2. Location: ☒ **Not for Publication** ☐ **Unrestricted**

- **a. County** Los Angeles
- **b. USGS 7.5' Quad** Neenach School **Date** 1995; **T**8N; **R1**6W; NW ¼ **of** SW ¼ **of Sec** 13; San Bernardino **B.M.**
- c. Address N/A City N/A Zip N/A
- d. UTM: Zone 11, 3849681mE/ 359560mN
- e. Other Locational Data: From Lancaster, California, drive west on State Route 138 for approximately 22 miles to the intersection of St Rt. 138 and 230th St. Turn right (north) onto 230th St and continue north approximately 0.4 miles. The isolate is located approximately 62 meters at 24 degrees from the northeast corner of APN 3278-025-001.

P3a. Description:
This resource consists of a single isolated chert flake identified within a fallowed agricultural field. The isolate is an off-white chert flake and measures 2.5cm x 1.5cm x 0.25cm thick. Soils consist of a light tan sandy loam, with small angular inclusions. Vegetation consists of Sahara mustard, rubber rabbitbrush, stork's bill, juniper, plantain, and Aleppo pine.

3b. Resource Attributes: AP16. Other

P4. Resources Present: □Building □Structure □Object☐Site □District □Element of District ☒ Other Isolate



P5b. Description of Photo: Detail view of isolate

P6. Date Constructed/Age and Source:
☐Historic ☒ Prehistoric ☐ Both

P7. Owner and Address:
Amilcar Ruben Badano and Debbie Badano
49560 230th ST W
Lancaster CA, 93536-9211

P8. Recorded by:
Kleinfelder
David Sosa
2882 Prospect Park, Suite 200
Rancho Cordova, CA 95670

P9. Date Recorded: 02/21/2023

P10. Survey Type: Intensive Pedestrian

P11. Report Citation: Neal, Jessica, Shelby Soares, and Alyssa Gelinas. 2023. Cultural Resources Identification Report for the 230th Street Solar Project, Los Angeles County, California

Attachments: □NONE ☒Location Map ☐Continuation Sheet □Building, Structure, and Object Record ☐Archaeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record ☐Artifact Record □Photograph Record ☐Other (List): Sketch Map

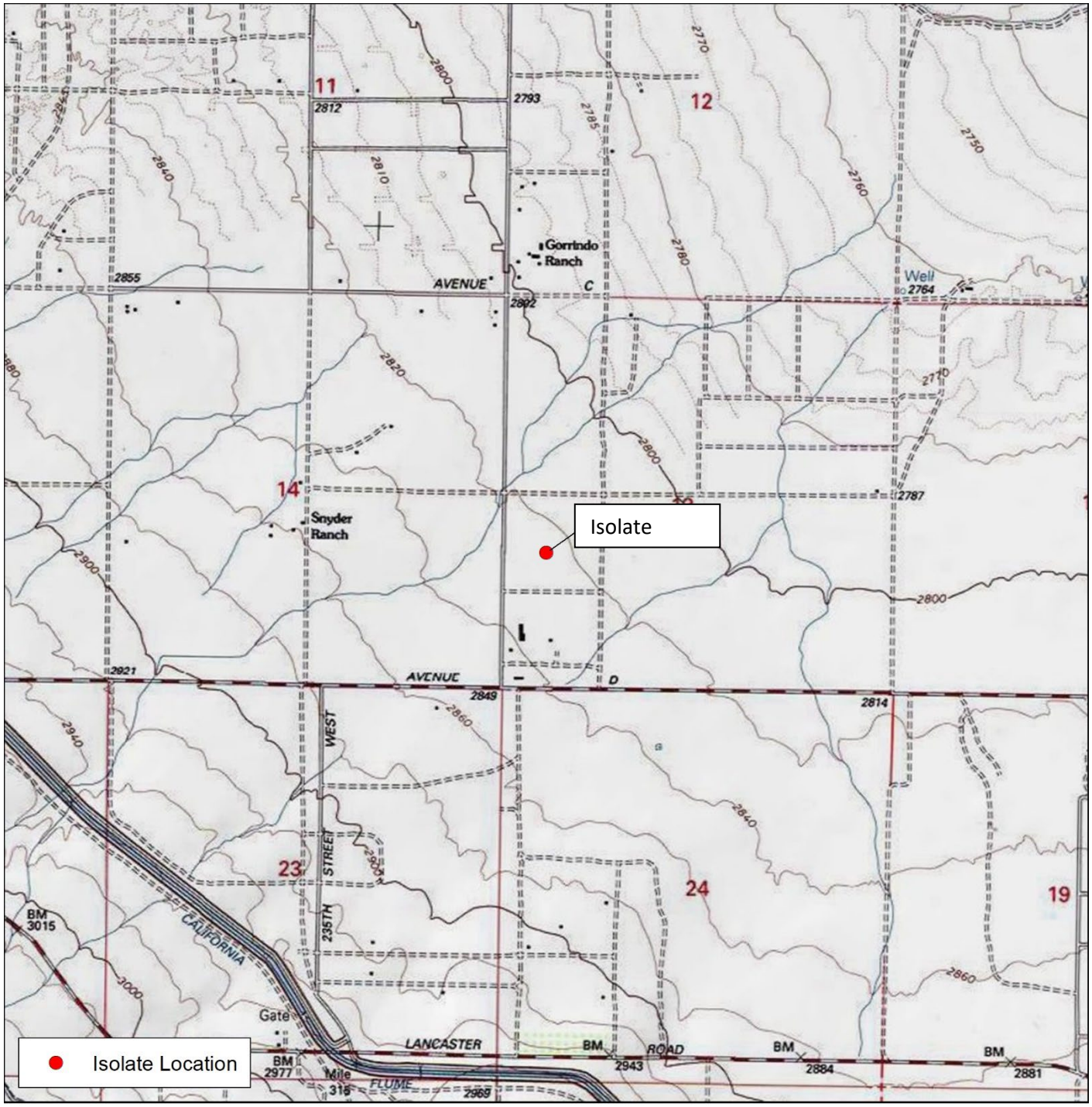
State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Resource Name or # 022123-DS-ISO1

Map Name: Neenach School, CA **Scale:** 1:24,000 **Date of map:**1995





USGS 7.5' Quad: NEENACH SCHOOL (1995)
Legal Description: T08N, R16W, SEC 13
NAD 1983 UTM Zone 11N

0 1,000 2,000 Feet

0 300 600 Meters

N

Scale 1:24,000
1 Inch = 2000 Feet

Resource Location
022123 DS ISO1
Los Angeles County, California

Appendix E

Energy Documentation

Kimley»Horn

Construction Fuel Consumption

On-Site Diesel[1] (off-road construction Equipment)	$MTCO_2e$	Gallons of Fuel[4]	Los Angeles County Fuel (Start of Construction)	Percent
Demolition	20	1,990		
Site Preparation	16	1,571		
Grading	41	4,013		
Construction/Installation	92	9,055		
Architectural Coating	0	0		
Total	169	16,629	532,570,627	0.0031%

Off-Site Diesel[1] (on-road construction trips)				
Demolition	20	1,990		
Site Preparation	15	1,443		
Grading	15	1,443		
Construction/Installation	35	3,489		
Architectural Coating	0	0		
Total	85	8,364	532,570,627	0.0016%

Off-Site Gasoline[2]				
Demolition	10	1,140		
Site Preparation	13	1,496		
Grading	13	1,496		
Construction/Installation	26	2,920		
Architectural Coating	0	0		
Total	62	7,051	3,536,229,368	0.0002%

Total Diesel Fuel		24,992	532,570,627	0.0047%
Total Gasoline Fuel		7,051	3,536,229,368	0.0002%
Total Construction Fuel	316	32,043		

Construction Phase[3]	Demolition			Site Preparation			Grading		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	25	20	10	15.94583268	14.64152368	13.17629854	40.73281347	15	13.17629854
Total	25	20	10	16	15	13	41	15	13

Construction Phase[3]	Construction/Installation, PV Vendor Trips[5]			Paving					
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	92	35	26	1		7			
Total	92	35	26	1	0	7	0	0	0

Notes:

[1] Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

[2] Fuel used for worker trips assumed to be gasoline.

[3] $MTCO_2e$ rates from CalEEMod (3.0 Construction Details).

[4] For CO2e emissions, see Chapter 13 (page 94); Conversion Ratios: Climate Registry, General Reporting Protocol, 2016.

[5] Construction/Installation vendor trips include PV panel deliveries.

Construction Water Energy

Water Energy Intensity[1]	2,701	kWh/MG
Total Construction Water[2]	4.24	million gallons
Construction Water Energy	11,452	kWh
Los Angeles County Annual Energy (GWh)	68,484,956,280	kWh
Percentage of County	0.000000	

Notes:

[1] Water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343.

[2] Total Construction Water based on applicant input.

Elecricity/Natural Gas Energy

	Mitigated Project Annual Energy	Los Angeles County Annual Energy[3]	Percentage Increase
Electricity (kWh/yr)	0	68,484,956,280	0.0000000%
Natural Gas (kBTU/yr)	0	0	NA
Natural Gas (therms/yr)	0	0	NA

Land Use	Electricity[1] (kWh/yr)		Natural Gas[2] (kBTU/yr)	
	Unmitigated	Mitigated	Unmitigated	Mitigated
	0	0	0	0
Total Energy	**0**	**0**	**0**	**0**

Notes:

[1] Electricity use per CalEEMod (5.3 Energy by Land Use).

[2] Natural Gas use per CalEEMod (5.2 Natural Gas by Land Use).

[3] County total energy values from California Energy Commission energy reports available through ecdms.energy.ca.gov. (year 2020)

Operational Water Energy

Mitigated Indoor	0.00	million gallons
Indoor Energy Intensity Factor[1]	2,701	kWh/MG
Mitigated Outdoor	0.10	million gallons
Outdoor Energy Intensity Factor[2]	3,472	kWh/MG
Operational Water Energy	347	kWh
Los Angeles County Annual Energy (GWh)	68,484,956,280	kWh
Percentage Increase	0.00000001	

Notes:

[1] Indoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply

[2] Outdoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supp

[3] Operational water use values per CalEEMod (7.2 Water by Land Use).

Operational Fuel

Vehicle Type	Annual VMT[1]	MPG[2]	Annual Fuel (Gallons)	Fuel Type	LA County Gallons[3]	RS Percent
Passenger Cars	0	21.6	0	Gas	3,536,229,368	0.00000%
Light/Medium Trucks	0	17.2	0	Diesel	532,570,627	0.00000%
Heavy Trucks/Other	570	6.1	93	Diesel	532,570,627	0.00002%
Trucks Total			93		532,570,627	0.00002%
Total	396					

Notes:

[1] Total annual operational VMT based on mitigated annual VMT from CalEEMod (4.2 Trip Summary Information).

[2] Average fuel economy derived from Department of Transportation.

[3] Total annual county fuel per EMFAC 2021 model of projected operational fuel usage.

Appendix F

Geotechnical Engineering Investigation

Kimley»Horn

GEOTECHNICAL • ENVIRONMENTAL • GEOLOGY • MATERIALS TESTING & INSPECTION • FORENSIC • LABORATORY

SALEM
engineering group, inc.

GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED 4.99MW GROUND MOUNT SOLAR ARRAY
AND BESS STORAGE
SOUTHEAST CORNER OF 230TH STREET WEST
AND WEST AVENUE C 8
LANCASTER, CALIFORNIA

SALEM PROJECT NO. 3-223-1034
NOVEMBER 7, 2023

PREPARED FOR:

MR. BRIAN MADIGAN
RPCA SOLAR 12, LLC
44 MONTGOMERY STREET, M SUITE 3150
SAN FRANCISCO, CALIFORNIA 94104

PREPARED BY:

SALEM ENGINEERING GROUP, INC.
4729 W. JACQUELYN AVENUE
FRESNO, CA 93722
P: (559) 271-9700
F: (559) 275-0827

SALEM
engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Phone (559) 271-9700
Fax (559) 275-0827

November 7, 2023 Project No. 3-223-1034

Ms. Brian Madigan
RPCA Solar 12, LLC
44 Montgomery Street, Suite 3150
San Francisco, California 94104

Subject: **GEOTECHNICAL ENGINEERING INVESTIGATION**
PROPOSED 4.99 MW GROUND MOUNT SOLAR ARRAY
AND BESS STORAGE
SOUTHEAST CORNER OF 230TH STREET WEST AND WEST AVENUE C 8
LANCASTER, CALIFORNIA

Dear Mr. Madigan:

At your request and authorization, SALEM Engineering Group, Inc. (SALEM) has prepared this geotechnical engineering investigation report for the site of the proposed 4.99MW ground mounted 230th Street Solar Project (”Project”) solar array and BESS storage to be located at the subject site. The accompanying report presents our findings, conclusions, and recommendations regarding the geotechnical aspects of designing and constructing the project as presently proposed. In our opinion, the proposed project is feasible from a geotechnical viewpoint provided our recommendations are incorporated into the design and construction of the project.

We appreciate the opportunity to assist you with this project. Should you have questions regarding this report or need additional information, please contact the undersigned at (559) 271-9700.

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

Dean B. Ledgerwood II, PE, PG, CEG
Geotechnical Manager
PE 94395 / PG 8725 / CEG 2613

TABLE OF CONTENTS

1. PURPOSE AND SCOPE 1
2. SITE LOCATION AND DESCRIPTION 1
3. PROJECT DESCRIPTION 2
4. FIELD EXPLORATION 2
   - 4.1. Drilling Test Borings 2
   - 4.2. Percolation Testing 3
5. LABORATORY TESTING 3
6. SOIL AND GROUNDWATER CONDITIONS 3
   - 6.1 Subsurface Conditions 3
   - 6.2 Results of Percolation Testing 4
   - 6.3 Groundwater 5
   - 6.4 Soil Corrosion Screening 5
   - 6.5 Thermal Conductivity Testing 6
7. GEOLOGIC SETTING 7
8. GEOLOGIC HAZARDS 7
   - 8.1 Faulting and Seismicity 7
   - 8.2 Surface Fault Rupture 8
   - 8.3 Ground Shaking 8
   - 8.4 Liquefaction 8
   - 8.5 Lateral Spreading 9
   - 8.6 Landslides 9
   - 8.7 Tsunamis and Seiches 9
9. CONCLUSIONS AND RECOMMENDATIONS 9
   - 9.1 General 9
   - 9.2 Surface Drainage 10
   - 9.3 Site Grading 10
   - 9.4 Soil and Excavation Characteristics 13
   - 9.5 Materials for Fill 13
   - 9.6 Seismic Design Criteria 14
   - 9.7 Small Diameter Driven Pile Foundations 15
   - 9.8 Water Tank Foundations 16
   - 9.9 Concrete Equipment Slabs-on-Grade (miscellaneous equipment and BESS pads) 17
   - 9.10 Temporary Excavations 18
   - 9.11 Underground Utilities 19
   - 9.12 Pavement Design 20
10. PLAN REVIEW, CONSTRUCTION OBSERVATION AND TESTING 21
   - 10.1 Plan and Specification Review 21
   - 10.2 Construction Observation and Testing Services 21

TABLE OF CONTENTS (cont.)

11. LIMITATIONS AND CHANGED CONDITIONS 22

FIGURES
Figure 1, Vicinity Map
Figure 2, Site Plan

APPENDIX A – FIELD INVESTIGATION
Figures A1 and A2; Logs of Borings B-1 and B-2

APPENDIX B – LABORATORY TESTING
Consolidation Tests
Direct Shear Tests
Gradation Curves
Atterberg Limits
Expansion Index
Corrosivity Test Results; Soluble Sulfate, Chloride, and pH
Soil Resistivity Test Result

APPENDIX C – EARTHWORK AND PAVEMENT SPECIFICATIONS

SALEM engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Phone (559) 271-9700
Fax (559) 275-0827

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED 4.99 MW GROUND MOUNT SOLAR ARRAY AND BESS STORAGE
SOUTHEAST CORNER OF 230TH STREET WEST AND WEST AVENUE C 8
LANCASTER, CALIFORNIA

1. PURPOSE AND SCOPE

This report presents the results of our geotechnical engineering investigation for the site of the proposed 4.99 MW ground mount 230th Street Solar Project (”Project”) solar array and BESS storage to be located at the subject site near Lancaster, California as depicted on Figure 1, Vicinity Map.

SALEM Engineering Group, Inc. (SALEM) has completed this geotechnical engineering investigation with the purpose to observe and sample the subsurface conditions encountered at the site, and provide conclusions and recommendations relative to the geotechnical aspects of constructing the project as presently proposed. The recommendations presented herein are based on analysis of the data obtained during the investigation and our local experience with similar soil and geologic conditions.

If project details vary significantly from those described herein, SALEM should be contacted to determine the necessity for review and possible revision of this report.

If project details vary significantly from those described herein, SALEM Engineering Group, Inc. (SALEM) should be contacted to determine the necessity for review and possible revision of this report. Earthwork and Pavement Specifications are presented in Appendix C. If text of the report conflict with the specifications in Appendix C, the recommendations in the text of the report have precedence.

2. SITE LOCATION AND DESCRIPTION

The project site is located within a vacant area at latitude and longitude of 34.7818, -118.5369, southeast of the corner of 230th Street West and West Avenue C 8 near Lancaster, California.

The area of the proposed solar was currently vacant at the time of this investigation with sparse desert vegetation. Based on review of historical aerial imagery, the subject site appears to have been vacant since at least 1985.

The entire site is relatively flat with an elevations ranging from approximately 2,821 to 2,825 feet above mean sea level (AMSL) based on Google Earth Imagery.

3. PROJECT DESCRIPTION

We understand that the project includes the installation of a 4.99MW ground mount solar array in an area comprised of approximate 34.4 acres. In addition, it is our understanding that the project will include a battery energy storage system (BESS) and 10,000 gallon above ground water tank. The proposed water tank is anticipated to be supported on a concrete ring foundation and BESS will be supported on structural equipment slabs. The approximate limits of the solar array limits are shown on Site Plan Figure No. 2 at the end of this report.

Structural load information and other final details pertaining to the structures are unavailable. Construction will include equipment pads for inverters and associated equipment.

Based on previous similar projects, it is understood that the PV system structure will be supported on driven piles extending to approximate depths of 8 to 10 feet below existing grade. Foundation dead loads (DL) are light to moderate. A maximum deflection of 1 inch at ground level is considered in pile design.

A site grading plan was not available at the time of preparation of this report. In the event that changes occur in the nature or design of the project, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and the conclusions of our report are modified.

The site configuration and locations of proposed improvements are shown on the Site Plan, Figure 2.

4. FIELD EXPLORATION

4.1. Drilling Test Borings

Our field exploration consisted of site surface reconnaissance and subsurface exploration. On October 18, 2023, a total of fifteen (15) test borings were drilled throughout the planned solar development to depths ranging from 16.5 to 21.5 feet BSG. The locations of the test borings are shown on Figure No. 2, Site Plan. The test borings were drilled using a truck mounted CME 75 drill rig equipped with hollow stem augers.

The materials encountered in the test borings were visually classified in the field, and logs were recorded by a field engineer at that time. Visual classification of the materials encountered in the test borings was generally made in accordance with the Unified Soil Classification System (ASTM D2487). The boring location can be found on the Site Plan, attached at the end of this report.

A soil classification chart and key to sampling is presented on the Unified Soil Classification Chart, in Appendix "A." The Test Boring Log is presented in Appendix "A." The Boring Log includes the soil type, color, moisture content, dry density, and the applicable Unified Soil Classification System symbol. The location of the test boring was determined by measuring from features shown on the Site Plan, provided to us. Hence, accuracy can be implied only to the degree that this method warrants.

The actual boundaries between different soil types may be gradual and soil conditions may vary. For a more detailed description of the materials encountered, the Boring Log in Appendix "A" should be consulted. Subsurface soil samples were obtained by driving a Modified California sampler (MCS) and a Standard Penetration Test (SPT) sampler. Penetration resistance blow counts were obtained by dropping an automated 140-pound trip hammer through a 30-inch free fall to drive the sampler to a maximum depth of 18 inches. The number of blows required to drive the last 12 inches is recorded as Penetration Resistance (blows/foot) on the logs of the boring. In case very high penetration resistance is encountered, the number of blows recorded may be for less than 12 inches.

Soil samples were obtained from the test boring at the depths shown on the boring logs. The MCS samples were recovered and capped at both ends to preserve the samples at their natural moisture content; SPT samples were recovered and placed in a sealed bag to preserve their natural moisture content.

4.2. Percolation Testing

As requested, two (2) percolation tests was performed at the site within the upper 5 feet below site grade. It is our understanding that the results of the testing performed will be utilized by others for the proposed stormwater disposal system.

The percolation test was conducted using an approximately 6-5/8 inch diameter percolation borehole using hollow stem auger. Approximately 2 to 4 inches of gravel was placed in the bottom of the hole followed by a 3-inch diameter perforated pipe. The holes were pre-saturated prior to percolation testing. The findings of the percolation testing is summarized in Section 6.4 of this report. The approximate locations of the percolation tests performed are shown on Figure 2 included at the end of this report.

5. LABORATORY TESTING

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, shear strength, consolidation characteristics, expansion index, plasticity index, and gradation of the materials encountered.

In addition, chemical tests were performed to evaluate the corrosivity of the soils to buried concrete and metal; including soluble sulfate, chloride, pH, and soil resistivity. In addition, two (2) sets of thermal resistivity tests were performed on samples remolded to approximately 90 and 95 percent relative compaction. Details of the laboratory test program and the results of laboratory test are summarized in Appendix "B." This information, along with the field observations, was used to prepare the final boring logs in Appendix "A."

6. SOIL AND GROUNDWATER CONDITIONS

6.1 Subsurface Conditions

The subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the soils encountered included silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet below site grade.

A consolidation test performed on a near surface soil sample resulted in about 13 percent consolidation under a load of 16 kips per square foot. When wetted under a nominal load of 2 kips per square foot the sample exhibited about 2.5 percent collapse. Four (4) direct shear tests resulted in internal angles of friction of 44, 44 ,43, and 43 degrees with cohesion values of “no cohesion”, 90, 87, and 370 pounds per square foot cohesion value, respectively. Three (3) Atterberg limits tests on near surface soil samples resulted in plasticity indexes of 0, 8, and 9 with liquid limits values of 20, ,27 and 29, respectively. An expansion index test indicated the soils have very low expansion potential (EI=0).

An R-value test resulted in an R-value of 16.

Soil conditions described in the previous paragraphs are generalized. Therefore, the reader should consult exploratory boring logs included in Appendix A for soil type, color, moisture, consistency, and USCS classification of the materials encountered at specific locations and elevations.

6.2 Results of Percolation Testing

The infiltration rate summarized in this report was prepared based on the methodology summarized in County of Los Angeles County of Los Angeles Guidelines for Design, Investigation, and Reporting Low Impact Development Stormwater Infiltration, GS200.1 dated June 30, 2021. As allowed by GMED GS200.1, the infiltration rate was determined using the Boring Percolation Test Procedure, where the infiltration rate was determined based on the Reduction Factor formula included in the LA County GMED GS200.1 document.

Two (2) percolation tests (P-1 and P-2) were performed at the site within the upper 5 feet BSG. The percolation tests were presaturated and performed in general conformance with LA County GMED GS200.1 requirements. The approximate locations of the percolation tests are shown on the attached Site Plan, Figure 2. The boreholes were advanced to the depths shown on the percolation test worksheets. The holes were pre-saturated before percolation testing commenced. Percolation rates were measured by filling the test holes with clean water and measuring the water drops at a certain time interval.

Approximately 7.75-inch diameter hand auger boreholes were advanced to the depths as illustrated in the following table. Approximately 2 inches of gravel was placed in the bottom of the test boring followed by a 3-inch diameter perforated pipe. The annulus surrounding the perforated pipe was backfilled with gravel. The holes were pre- saturated a before percolation testing commenced. The stabilized percolation rates were converted to an estimated infiltration rate by dividing the averaged stabilized volumetric rate by total surface area of infiltration of the boring (per GMED GS200.1, Small Diameter Boring Infiltration Test Procedure). The factored infiltration rate was calculated using a reduction factor (RFt) of 2.. The results of the field percolation testing are included at the end of this report.

Location	Depth, BSG (feet)	Estimated Average Stabilized Unfactored Infiltration Rate (inches/hour)	Reduction Factor (RF_t)	Average Stabilized Factored Infiltration Rate, (inches/hour)*	Soil Type (USCS)
P-1	4.3	0.34	2	0.17	SM
P-2	4.5	0.27	2	0.14	SM

*** A reduction Factor (RFt) of 2 was selected for this site**

The estimated infiltration rate was prepared based on methodology specified in LA County GMED GS200.1 dated June 30, 2021. For proposed underground storm water disposal systems, an average factored infiltration rate of 0.16 inches per hour may be considered for design.

Variations in soil type and soil density across the infiltration area of the system can influence the infiltration rate. Due to the variable infiltration characteristics, SALEM should be contacted to perform confirmation double ring infiltration testing during construction.

6.3 Groundwater

The test borings were checked for the presence of groundwater during and after the excavation operations. Groundwater was not encountered during the time of our subsurface investigation.

Available groundwater depth records with the California Department of Water Resources (www.water.ca.gov./waterlibrary) indicate Well Number 347897N1185199W001, located approximately 0.5 miles north of the project site reported a historical high groundwater depths to be greater than 100 feet BSG between 1955 and 1963.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, localized pumping, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

6.4 Soil Corrosion Screening

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete and the soil. The 2019 Edition of ACI 318 (ACI 318) has established criteria for evaluation of sulfate and chloride levels and how they relate to cement reactivity with soil and/or water. A soil sample was obtained from the project site and was tested for the evaluation of the potential for concrete deterioration or steel corrosion due to attack by soil-borne soluble salts and soluble chloride. The water-soluble sulfate concentration in the saturation extract from two (2) soil samples were detected to be less than 50 and 150 mg/kg.

ACI 318 Tables 19.3.1.1 and 19.3.2.1 outline exposure categories, classes, and concrete requirements by exposure class. ACI 318 requirements for site concrete based upon soluble sulfate are summarized in Table 6.4 below.

TABLE 6.4
WATER SOLUBLE SULFATE EXPOSURE REQUIREMENTS

Boring/Depth BSG	Dissolved Sulfate (SO_4) in Soil % by Weight	Exposure Severity	Exposure Class	Maximum w/cm Ratio	Minimum Concrete Compressive Strength	Cementitious Materials Type (ASTM C150)
B-1 / 0-4	<0.005	negligible	S0	NA	2,500 psi	No Restrictions
B-7 /0-4-	0.015	negligible	S0	NA	2,500 psi	No Restrictions

The water-soluble chloride concentration detected in saturation extract from the soil samples tested were 53 and 112 mg/kg. In addition, testing performed on a near surface soils resulted in minimum resistivity values of 3,971 and 4,410 ohm-centimeters. Based on the results, these soils would be considered to have a “mildly corrosive” potential to buried metal objects (per National Association of Corrosion Engineers, Corrosion Severity Ratings). It is recommended that, at a minimum, applicable manufacturer’s recommendations for corrosion protection of buried metal pipe be closely followed.

6.5 Thermal Conductivity Testing

Thermal conductivity tests (ASTM D5334) were conducted on a set of near surface samples collected at depths of around 3 feet BSG. The samples were remolded to a dry density of about 90 and 95 percent of the maximum dry density determined in accordance with the standard proctor (ASTM D1557) and to in-situ dry density, then were tested for thermal resistivity at the saturated moisture content, 0 percent moisture, and four (4) intermediate moisture contents. The results of the thermal resistivity tests are provided in Table No. 6.5 below and included in Appendix B of this report**.**

TABLE 6.5
RESULTS OF THERMAL RESISTIVITY TESTING

Location	Depth, Feet BSG	Dry Density, PCF*	Moisture Content, %	Thermal Resistivity, ˚C-cm/W
B-4 (90% Relative Compaction)	1-4	113.9	0.0%	1.094
		116.4	2.4%	0.897
		119.0	4.7%	0.666
		120.7	7.4%	0.641
		125.4	9.7%	0.620
		120.8	12.7%	0.547
B-4 (95% Relative Compaction)	1-4	120.4	0.0%	2.345
		124.8	1.9%	1.456
		123.1	3.6%	0.730
		127.3	6.0%	0.582
		127.4	8.0%	0.549
		127.9	9.6%	0.576
B-13 (90% Relative Compaction)	1-4	114.0	0.0%	1.101
		118.0	2.6%	0.732
		118.0	5.5%	0.618
		120.1	8.1%	0.609
		121.7	9.4%	0.571
		117.5	12.1%	0.651
B-13 (95% Relative Compaction)	1-4	120.4	0.0%	2.576
		126.6	2.0%	1.402
		125.7	3.7%	0.669
		124.9	6.2%	0.656
		127.1	8.1%	0.536
		125.9	9.7%	0.639

7. GEOLOGIC SETTING

The subject site is located approximately 23 miles west of Lancaster, California, which is situated in the northern edge of Mojave Desert Province of California and lies in the Eastern California Shear Zone.

The project site is located in the northwest portion of the Mojave Desert Geomorphic province, which, in turn, is situated on the Mojave Block. The Mojave Block is a triangular fault block bound on the north by the Garlock Fault, on the southwest by the San Andreas Fault, and on the east by the Colorado River. The project site is underlain by recent age alluvium derived from local granitic rocks. The alluvium consists mainly of silts, sands, and gravels with minor amounts of clay.

Based on review of Geologic Map of the Neenach and Willow Springs 15 Minute Quadranges[1], the area the subject site is in an area mapped as surficial alluvial deposits (Qa).

8. GEOLOGIC HAZARDS

8.1 Faulting and Seismicity

Based on the proximity of several dominant active faults and seismogenic structures, as well as the historic seismic record, the area of the subject site is considered subject to relatively low seismicity.

The project area is not within an Alquist-Priolo Special Studies Zone and will not require a special site investigation by an Engineering Geologist. Based on our experience in the Bakersfield region, the soils on site are classified as Site Class D-Default in accordance with Chapter 16 of the California Building Code. The proposed structures are determined to be in Seismic Design Category D.

To determine the distance of known active faults within 100 miles of the site, we used the United States Geological Survey (USGS) web-based application *2008 National Seismic Hazard Maps - Fault Parameters*. Site latitude is 34.7818° North; site longitude is -118.5369 ° West. The ten closest active faults are summarized below in Table 8.1.

TABLE 8.1
REGIONAL FAULT SUMMARY

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
S. San Andreas;CC+BB+NM+SM+NSB +SSB+BG+CO	5.39	8.1
S. San Andreas;SM+NSB+SSB	6.44	7.6
Garlock;GE+GC+GW	11.89	7.7
San Gabriel	17.69	7.3
S. San Andreas;BB	20.17	7.1
Pleito	21.93	7.1
Holser, alt 1	24.24	6.8
Santa Ynez (East)	25.28	7.2
Northridge	27.12	6.9

[1] Dibblee, T.W. and Minch, J.A., 2008, Geologic map of the Neenach & Willow Springs 15 minute quadrangles, Kern & Los Angeles Counties, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-383, 1:62,500

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
San Cayetano	27.54	7.2

The faults tabulated above and numerous other faults in the region are sources of potential ground motion. However, earthquakes that might occur on other faults throughout California are also potential generators of significant ground motion and could subject the site to intense ground shaking.

8.2 Surface Fault Rupture

The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. The nearest potentially active faults identified by the CGS Interactive Fault Activity Map of California is the San Andreas fault located approximately 5 miles south of the site. No active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

8.3 Ground Shaking

Seismic coefficients and spectral response acceleration values were developed based on the 2022 California Building Code (CBC). The CBC methodology for determining design ground motion values is based on the Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps, which incorporate both probabilistic and deterministic seismic ground motion. Table 9.6.1 include design seismic coefficients and spectral response parameters, based on the 2022 California Building Code (CBC) for the project foundation design.

Based on the 2022 CBC and limited nature of this investigation, a Site Class D-Default was selected for the subject site. A table providing the recommended design acceleration parameters for the project site, based on a Site Class D designation, is included in section 9.6.1 of this report.

Based on Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps, the estimated design peak ground acceleration adjusted for site class effects (PGA_M) was determined to be 0.806g (based on both probabilistic and deterministic seismic ground motion).

8.4 Liquefaction

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile.

In general, the soils encountered included silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet below site grade.

Free groundwater was not encountered to the depth of exploration during this investigation. Based on available water well data, historic groundwater depths are greater than 100 feet below site grade

A 50 foot deep test boring for liquefaction analysis was not included as part of this investigation. Based on our experience in the Bakersfield area and the historic depth to groundwater (greater than 100 feet BSG), liquefaction/seismic settlement is not a concern to impact the site development.

8.5 Lateral Spreading

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat site topography, we judge the likelihood of lateral spreading to be low.

8.6 Landslides

There are no known landslides at the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

8.7 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a potentially significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 General

9.1.1 Based upon the data collected during this investigation, and from a geotechnical engineering standpoint, it is our opinion that the site is suitable for the proposed construction as planned, provided the recommendations contained in this report are incorporated into the project design and construction. Conclusions and recommendations provided in this report are based on our review of available literature, analysis of data obtained from our field exploration and laboratory testing program, and our understanding of the proposed development at this time.

The following recommendations were prepared based on the geotechnical engineering data obtained from the borings and laboratory testing conducted as part of this investigation. It is our understanding that pile load test data may be used to assess the capacities of the soil and the effects of soil-pile interaction. From a geotechnical engineering perspective, in-situ pile testing may be conducted and used as a basis for design, provided that the testing, design analysis and selection of safety factors are conducted in a rational method determined by the design engineer for the lightly loaded shallow piles supporting the PV systems.'

9.1.2 In general, the soils encountered included silty sands to depths of approximately 10 to 15 feet BSG underlain by poorly graded sands with silt to the maximum depth explored of 21.5 feet below site grade. Groundwater was not encountered at the time of this investigation.

9.1.3 Based on the results of the laboratory testing performed, the soils encountered have moderate to high compressibility characteristics, moderate collapse potential, and very low expansion potential.

9.1.4 Laboratory tests indicate the near surface soils are "mildly corrosive" to buried metal objects and a "negligible" (Sulfate Class S0) potential for sulfate attack on concrete.

9.1.5 Based on the subsurface conditions at the site and the anticipated structural loading, the proposed solar panels and associated equipment slabs may be supported using foundations presented in this report.

9.1.6 Provided the site is graded in accordance with the recommendations of this report and foundations constructed as described herein, we estimate that total settlement due to static will be about 1 inch and corresponding differential settlement will about ½ inch between piles.

9.1.7 Based on the results of the laboratory testing performed and average in-place density of the upper soils encountered, a shrinkage factor of 10 percent was estimated for the site.

9.1.8 All references to relative compaction and optimum moisture content in this report are based on ASTM D1557 (latest edition).

9.1.9 SALEM Engineering Group, Inc. should be retained to review the project plans as they develop further, provide engineering consultation as-needed, and perform geotechnical observation and testing services during construction.

9.2 Surface Drainage

9.2.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change to important engineering properties. Proper drainage should be maintained at all times.

9.2.2 All site drainage should be collected and transferred away from improvements in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundations or retaining walls. Drainage should not be allowed to flow uncontrolled over any descending slope.

9.2.3 Positive site drainage should be provided away from structures, pavement, and the tops of slopes to swales or other controlled drainage structures. The construction pads should be fine graded such that water is not allowed to pond. Final soil grade should slope a minimum of 2 percent away from structures.

9.3 Site Grading

9.3.1 A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Geotechnical Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section as well as other portions of this report.

9.3.2 A pre-construction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer and geotechnical engineer in attendance.

9.3.3 Site grading activities shall include removal of all vegetation and demolition of surface obstructions not intended to be incorporated into final site design. In addition, underground buried structures and/or utility lines encountered during demolition and construction should be properly removed and the resulting excavations backfilled with Engineered Fill. After removal and demolition activities, it is recommended that disturbed soils be recompacted as engineered fill.

9.3.4 Site preparation should begin with removal of existing surface/subsurface structures, underground utilities (as required), any existing uncertified fill, and debris. Excavations or depressions resulting from site clearing operations, or other existing excavations or depressions, should be restored with Engineered Fill in accordance with the recommendations of this report.

9.3.5 Surface vegetation should be removed by stripping to a sufficient depth to remove organic-rich topsoil. The upper 4 to 6 inches of the soils containing, vegetation, roots and other objectionable organic matter encountered at the time of grading should be stripped and removed from the surface. Deeper stripping may be required in localized areas. The stripped vegetation, will not be suitable for use as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas or exported from the site.

9.3.6 Areas of proposed BESS equipment slabs should be over-excavated to a minimum of 12 inches below bottom of proposed equipment slabs, 12 inches below preconstruction site grades, or to the depth to remove undocumented fills (if any), whichever is greater. The resulting bottom of over excavation should be scarified to a depth of at least 12 inches, worked until uniform and free from large clods, moisture conditioned to slightly above optimum moisture, and compacted to a minimum of 92 percent of the maximum density. The horizontal limits of the over-excavation should extend throughout the equipment pad over-build zone, laterally to a minimum of 3 feet beyond the outer edges of the proposed footings.

Equipment slabs on grade should be supported on a minimum of 4 inches of Class 2 aggregate base over the depth of engineered fill recommended above. Deepened edges are recommended for equipment slabs to reduce the potential for moisture fluctuations under the slabs. The thickened edges should extend to at least as deep as the bottom of the aggregate base section recommended under the slab.

9.3.7 Following stripping, to provide uniform support for the proposed tank, it is recommended that over-excavation extend to at least 24 inches below preconstruction site grade, to 12 inches below bottom of proposed foundations, to the depth required to remove root/organic material, or to the depth required to remove any undocumented fills (if encountered), whichever is greater. The resulting bottom of over excavation should be scarified to a minimum depth of at least 12 inches, worked until uniform and free from large clods, moisture-conditioned to slightly above optimum moisture, and compacted to 92 percent of the maximum density. The horizontal limits of the over-excavation should extend throughout the tank limits and over-build zone, extending laterally to a minimum of 5 feet beyond the outer edges of the proposed footings.

9.3.8 Areas of unpaved access roads should be prepared by scarification of the upper 12 inches, moisture condition to slightly above optimum and compacted to a minimum of 95 percent relative compaction (ASTM D1557). Unpaved access roads should be capped with a minimum of 12 inches of Caltrans class 2 aggregate base material compacted to 95 percent relative compaction. To improve roadway stability and reduced required aggregate base section, the unpaved roadway may comprise of 6 inches

of Class 2 Aggregate base over a Tensar NX750 geogrid, or equivalent, over compacted subgrade prepared as recommended above.

9.3.9 Areas of proposed asphaltic concrete pavements should be over-excavated to a minimum of 1 foot below preconstruction site grade or 1 foot below the bottom of the proposed aggregate base section, whichever provides greater fill. The bottom of excavation should be scarified 12 inches, moisture conditioned to slightly above optimum and compacted to 92 percent relative compaction. Subgrade soils within the upper 12 inches below pavement areas should be compacted to 95 percent relative compaction. The horizontal limits of the over-excavation should extend throughout the pavement areas and laterally to a minimum of 3 feet beyond the outer edges of the proposed pavements.

9.3.10 An integral part of satisfactory fill placement is the stability of the placed lift of soil. If placed materials exhibit excessive instability as determined by a SALEM field representative, the lift will be considered unacceptable and shall be remedied prior to placement of additional fill material. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

9.3.11 The most effective site preparation alternatives will depend on site conditions prior to grading. We should evaluate site conditions and provide supplemental recommendations immediately prior to grading, if necessary.

9.3.12 We do not anticipate groundwater or seepage to adversely affect construction. Project site stabilization consisting of placement of aggregate base and protecting exposed soils during construction should be performed. If the construction schedule requires grading operations during the wet season, we can provide additional recommendations as conditions warrant.

9.3.13 Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material or placement of crushed rocks or aggregate base material; or mixing the soil with an approved lime or cement product.

The most common remedial measure of stabilizing the bottom of the excavation due to wet soil condition is to reduce the moisture of the soil to near the optimum moisture content by having the subgrade soils scarified and aerated or mixed with drier soils prior to compacting. However, the drying process may require an extended period of time and delay the construction operation. To expedite the stabilizing process, crushed rock may be utilized for stabilization provided this method is approved by the owner for the cost purpose.

If the use of crushed rock is considered, it is recommended that the upper soft and wet soils be replaced by 12 to 30 inches of ¾-inch to 1-inch crushed rocks. The thickness of the rock layer depends on the severity of the soil instability. The recommended 12 to 30 inches of crushed rock material will provide a stable platform. It is further recommended that lighter compaction equipment be utilized for compacting the crushed rock. All open graded crushed rock/gravel should be fully encapsulated with a geotextile fabric (such as Mirafi 140N) to minimize migration of soil particles into the voids of the crushed rock. Although it is not required, the use of geogrid (e.g. Tensar BX 1100, BX 1200 or TX 160) below the crushed rock will enhance stability and reduce the required thickness of crushed rock necessary for stabilization.

Our firm should be consulted prior to implementing remedial measures to provide appropriate recommendations.

9.4 Soil and Excavation Characteristics

9.4.1 Based on the soil conditions encountered in our borings, the onsite soils can be excavated with moderate effort using conventional excavation equipment.

9.4.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable Occupational Safety and Health Administration (OSHA) rules and regulations to maintain safety and maintain the stability of adjacent existing improvements. Temporary excavations are further discussed in a later Section of this report.

9.4.3 The upper soils within the project site are identified primarily as clays. These soils in their present condition possess low risk to the proposed construction in terms of possible post-construction settlement if no mitigation measures are employed.

9.4.3 The near surface soils identified as part of our investigation are, generally, damp to moist due to the absorption characteristics of the soil. Earthwork operations may encounter very moist unstable soils which may require removal to a stable bottom. Exposed native soils exposed as part of site grading operations shall not be allowed to dry out and should be kept continuously moist prior to placement of subsequent fill.

9.5 Materials for Fill

9.5.1 On-site soils are considered suitable for use as engineered fill, provided these soils do not contain deleterious matter, organic material, or rock material larger than 3 inches in maximum dimension.

9.5.2 Import soil intended for use as Non-Expansive Engineered Fill soil, shall be well-graded, slightly cohesive silty sand or sandy silt. This material should be approved by the Engineer prior to use and should typically possess the soil characteristics summarized below in Table 9.5.2.

TABLE 9.5.2
IMPORT NON-EXPANSIVE FILL REQUIREMENTS

Percent Passing 3-inch Sieve	100
Percent Passing No.4 Sieve	75-100
Percent Passing No 200 Sieve	15-40
Maximum Plasticity Index	15
Maximum Expansion Index (ASTM D4829)	15

Prior to importing the Contractor should demonstrate to the Owner that the proposed import meets the requirements for import fill specified in this report. In addition, the material should be verified by the Contractor that the soils do not contain any environmental contaminates as regulated by local, state, or federal agencies, as applicable

9.5.3 All Engineered Fill (including scarified ground surfaces and backfill) should be placed in lifts no thicker than will allow for adequate bonding and compaction (typically 6 to 8 inches in loose thickness).

9.5.4 On-Site Soils used as engineered fill soils should moisture conditioned to slightly above optimum moisture content and compacted to at least 92 percent relative compaction.

9.5.5 Import Non-expansive Engineered Fill, should be placed, moisture conditioned to slightly above optimum moisture content, and compacted to at least 92 percent relative compaction.

9.5.6 The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since they have complete control of the project site.

9.5.7 Environmental characteristics and corrosion potential of import soil materials should also be considered.

9.5.8 Proposed import materials should be sampled, tested, and approved by SALEM prior to its transportation to the site.

9.5.9 Aggregate base material should meet the requirements of a Caltrans Class 2 Aggregate Base. The aggregate base material should conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, ¾-inch or 1½-inches maximum size. The aggregate base material should be compacted to a minimum relative compaction of 95 percent based ASTM D1557. The aggregate base material should be spread in layers not exceeding 6 inches and each layer of aggregate material course should be tested and approved by the Soils Engineer prior to the placement of successive layers.

9.6 Seismic Design Criteria

9.6.1 For seismic design of the structures, and in accordance with the seismic provisions of the 2022 CBC, our recommended parameters are shown below. These parameters were determined using Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps by location website (https://seismicmaps.org/), in accordance with the 2022 CBC. The Site Class was determined based on the soils encountered during our field exploration.

TABLE 9.6.1
2022 CBC SEISMIC DESIGN PARAMETERS

Seismic Item	Symbol	Value	2016 ASCE 7 or 2022 CBC Reference
Site Coordinates (Datum = NAD 83)		34.7818 Lat -118.5369 Lon	
Site Class	--	D	ASCE 7-16 Table 20.3
Soil Profile Name	--	Stiff Soil	ASCE 7-16 Table 20.3
Risk Category	--	I/II	CBC Table 1604.5
Site Coefficient for PGA	F_{PGA}	1.100	ASCE 7-16 Table 11.8-1
Peak Ground Acceleration	PGA_M	0.806	ASCE 7-16 Equation 11.8-1

Seismic Item	Symbol	Value	2016 ASCE 7 or 2022 CBC Reference
(adjusted for Site Class effects)			
Seismic Design Category	SDC	D	ASCE 7-16 Table 11.6-1 & 2
Mapped Spectral Acceleration (Short period - 0.2 sec)	S_S	1.681 g	CBC Figure 1613.2.1(1)
Mapped Spectral Acceleration (1.0 sec. period)	S_1	0.695 g	CBC Figure 1613.2.1(3)
Site Class Modified Site Coefficient	F_a	1.000	CBC Table 1613.2.3(1)
Site Class Modified Site Coefficient	F_v	**1.700 ***	CBC Table 1613.2.3(2)
MCE Spectral Response Acceleration (Short period - 0.2 sec) $S_{MS} = F_a S_S$	S_{MS}	1.681 g	CBC Equation 16-20
MCE Spectral Response Acceleration (1.0 sec. period) $1.5*S_{M1} = 1.5*(F_v S_1)$	$1.5*S_{M1}$	**1.772 g***	ASCE 7-16 11.4-2/ Supplement 3
Design Spectral Response Acceleration $S_{DS}=⅔S_{MS}$ (short period - 0.2 sec)	S_{DS}	1.121 g	CBC Equation 16-22
Design Spectral Response Acceleration $S_{D1}=⅔S_{M1}$ (1.0 sec. period)	S_{D1}	**1.181 g***	CBC Equation 16-23
Short Period Transition Period (S_{D1}/S_{DS}), Seconds	T_S	1.054	ASCE 7-16, Section 11.4.6
Long Period Transition period (seconds)	T_L	12	ASCE 7-16, Figures 22-14 through 22-17

Note: * Values Fv, SM1, and SD1 determined per ASCE Table 11.4.2 for use in calculating TS only

These values should not be used in structural design. Site Specific Ground Motion Analysis was not included in the scope of this investigation. Per ASCE 11.4.8, Structures on Site Class D, with S_1 greater than or equal to 0.2 may require Site Specific Ground Motion Analysis. The value reported for S_{M1} includes a 50% increase in accordance with exceptions listed in ASCE 7-16 - Supplement 3. In the event a site specific ground motion analysis is required, SALEM should be contacted for these services.

9.6.2 Conformance to the criteria in the above table for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

9.7 Small Diameter Driven Pile Foundations

9.7.1 Solar arrays may be supported using driven steel piles (small diameter H-piles, C-Shape Piles, etc.). **Driven piles should have a minimum embedment depth of 6 feet BSG or the depth required by the structural engineer, whichever is greater.**

9.7.2 Piles should be embedded in undisturbed native soils. If disturbed soils are present from tree removal activities, these areas should be over-excavated and backfilled with engineered fill per the recommendations of section 9.3 of this report.

9.7.3 The allowable downward load capacity of the driven piles below 1-foot BSG, may be designed based on an allowable skin friction value of 170 pounds per square foot. End bearing should not be used for design. An end bearing of 3,000 pounds per square foot may be considered for design.

The effective area in calculating the pile capacity should be the outer perimeter dimensions of the pile section (e.g, for a W6 x 6 x 15, the effective side friction area should be 4 sides multiplied by 6" per foot of pile length embedded into the soil). An increase of one-third may be applied when using the alternate load combination in Section 1605.3.2 of the 2019 CBC that includes wind or earthquake loads.

9.7.4 Uplift loads can be resisted by piles using 60 percent of the allowable downward side friction plus the weight of the pile.

9.7.5 Total and differential static settlement of 1 inch and ½ inch in 30 feet or between piles, whichever is less, should be considered in design.

9.7.6 Passive resistance in the upper portion of the driven piles, to a depth of 1 foot, should be neglected in design. The driven piles may be designed for an allowable lateral capacity of 400 pounds per square foot per foot of depth below the lowest adjacent grade to a maximum of 4,000 pounds per square foot. The passive pressure for driven piles spaced at a minimum of three (3) pile diameters may be applied over a width equal to two (2) pile diameters. No other increases should be applied to the allowable passive pressure.

9.7.7 9.7.7 If desired, the piles may be designed using LPILE and the parameters presented in Table 9.7.7.

TABLE 9.7.7
LPILE PARAMETERS

Depth, Feet BSG	L-Pile Soil Type	Design N-Value	Effective Unit Weight (pcf)	Design Phi Angle, degrees	Static Modulus of Subgrade Reaction, K (pci)
1-20	Sand (Reese)	15	130	42	90

The upper 1 foot should be neglected in design

9.8 Water Tank Foundations

9.8.1 The site is suitable for use of conventional shallow ring wall foundations or mat foundations supported on engineered fill soils prepared in accordance with Section 9.3 of this report. The foundations should be designed and reinforced for the anticipated differential settlements. A structural engineer experienced in foundation design should recommend the thickness, design details and concrete specifications for the tank foundations based on: 1) a total static settlement of 1 inch at the center of the tank; 2) a settlement of ½ inch at the edge of the tank; and 3) a differential settlement of ½ inch from the center to the edge of the tank. These design settlements are based on the allowable bearing pressures given in Table 9.8.5.

9.8.2 Ring wall foundations should be continuous with a minimum width of 12 inches and extend to minimum depths of 18 inches below the lowest adjacent grade, or to the depth required for frost protection, whichever is greater.

9.8.3 Mat slabs should be underlain by at least 6 inches of Class 2 aggregate base and should extend to a depth of at least 15 inches below adjacent ground surface at the edges of the mat.

9.8.4 If a concrete slab is not used under the tank, the tank area (inside the ringwall foundation) should be underlain by a minimum of 6 inches of Class 2 aggregate base compacted to 95 percent relative compaction, over the depth of engineered fill recommended below foundations.

9.8.5 Ringwall foundations, sized as recommended above, may be designed for the maximum allowable soil bearing pressures shown in the table below.

TABLE 9.8.5
ALLOWABLE BEARING CAPACITY

Loading Condition	Allowable Bearing Pressure*
Ring Wall Foundation Dead-Plus-Live Load	3,000 psf
Tank Bottom/Mat Slab - Dead-Plus-Live Load	1,000 psf

- Allowable bearing values may be increased by 1/3 for seismic or wind conditions.

9.8.6 Resistance to lateral footing displacement can be computed using an allowable coefficient of friction factor of 0.42 acting between the base of foundations and the supporting engineered fill subgrade. Lateral resistance for footings can also be developed using an allowable equivalent fluid passive pressure of 450 pounds per cubic foot acting against the vertical footing faces. The upper 6 inches below adjacent site grade should be neglected for passive resistance. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. An increase of one-third is permitted when using the alternate load combination in Section 1605.3.2 of the 2022 CBC, that includes wind or earthquake loads.

9.8.7 Footing concrete should be placed into neat excavation. The footing bottoms shall be maintained free of loose and disturbed soil.

9.8.8 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom edge of the footing.

9.8.9 The foundation subgrade should be sprinkled with water as necessary to maintain a moist condition without significant shrinkage cracks as would be expected in any concrete placement. Prior to placing rebar reinforcement, foundation excavations should be evaluated by a representative of SALEM for appropriate support characteristics and moisture content. Moisture conditioning may be required for the materials exposed at footing bottom, particularly if foundation excavations are left open for an extended period.

9.9 Concrete Equipment Slabs-on-Grade (miscellaneous equipment and BESS pads)

9.9.1 Slab thickness and reinforcement should be determined by the structural engineer based on the anticipated loading.

9.9.2 Equipment slabs supported on a minimum of 4 inches of class 2 aggregate base over the depth of engineered fill prepared in accordance with the recommendations included in section 9.3 of this report may be designed based on an allowable bearing capacity of 1,500 pounds per square foot. A structural engineer should recommend the thickness and reinforcement details based on a total static settlement of 1 inch and ½ inch in 30 feet or across the diameter of the slab, whichever is less.

9.9.3 Equipment slabs should include a thickened edge extending to the bottom of the recommended aggregate base section.

9.9.4 The lateral resistance for equipment slab may be designed based on an allowable fluid passive pressure of 350 pounds per cubic foot. This value may be increased by 1/3 for wind and seismic loading. The bottom surface of concrete slabs may be designed based on an allowable coefficient of friction of 0.36.

9.9.5 Proper finishing and curing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

9.9.6 The moisture content of the subgrade soils should be verified to at least 1 percent above optimum prior to placement of the imported non-expansive engineered fill section.

9.10 Temporary Excavations

9.10.1 We anticipate that the majority of the sandy site soils will be classified as Cal-OSHA "Type C" soil when encountered in excavations during site development and construction. Excavation sloping, benching, the use of trench shields, and the placement of trench spoils should conform to the latest applicable Cal-OSHA standards. The contractor should have a Cal-OSHA-approved "competent person" onsite during excavation to evaluate trench conditions and make appropriate recommendations where necessary.

9.10.2 It is the contractor's responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements. All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load.

9.10.3 Temporary excavations and slope faces should be protected from rainfall and erosion. Surface runoff should be directed away from excavations and slopes.

9.10.4 Open, unbraced excavations in undisturbed soils should be made according to the slopes presented in Table 9.10.4 below.

TABLE 9.10.4
RECOMMENDED EXCAVATION SLOPES

Depth of Excavation (ft)	Slope (Horizontal : Vertical)
0-5	1:1
5-10	1½:1

10-15	2:1

9.10.5 If, due to space limitation, excavations near existing structures are performed in a vertical position, braced shorings or shields may be used for supporting vertical excavations. Therefore, in order to comply with the local and state safety regulations, a properly designed and installed shoring system would be required to accomplish planned excavations and installation. A Specialty Shoring Contractor should be responsible for the design and installation of such a shoring system during construction.

9.10.6 Braced shorings should be designed for a maximum pressure distribution of 20H, (where H is the depth of the excavation in feet). The foregoing does not include excess hydrostatic pressure or surcharge loading. Fifty percent of any surcharge load, such as construction equipment weight, should be added to the lateral load given herein. Equipment traffic should concurrently be limited to an area at least 3 feet from the shoring face or edge of the slope.

9.10.7 The excavation and shoring recommendations provided herein are based on soil characteristics derived from the borings within the area. Variations in soil conditions will likely be encountered during the excavations. SALEM should be afforded the opportunity to provide field review to evaluate the actual conditions and account for field condition variations not otherwise anticipated in the preparation of this recommendation. Slope height, slope inclination, or excavation depth should in no case exceed those specified in local, state, or federal safety regulation, (e.g. OSHA) standards for excavations, 29 CFR part 1926, or Assessor's regulations.

9.11 Underground Utilities

9.11.1 Underground utility trenches should be backfilled with properly compacted material. The material excavated from the trenches should be adequate for use as backfill provided it does not contain deleterious matter, vegetation or rock larger than 3 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 8 inches and compacted to at least 90 percent relative compaction at or above optimum moisture content. The upper 12 inches of trench backfill within asphalt or concrete paved areas shall be moisture conditioned to at or above optimum moisture content and compacted to at least 95 percent relative compaction.

9.11.2 Bedding and pipe zone backfill typically extends from the bottom of the trench excavations to approximately 12 inches above the crown of the pipe. Pipe bedding, haunches and initial fill extending to 1 foot above the pipe should consist of a clean well graded sand with 100 percent passing the #4 sieve, a maximum of 15 percent passing the #200 sieve, and a minimum sand equivalent of 20.

9.11.3 It is suggested that underground utilities crossing beneath new or existing structures be plugged at entry and exit locations to the new structures to prevent water migration. Trench plugs can consist of on-site clay soils, if available, or sand cement slurry. The trench plugs should extend 2 feet beyond each side of individual perimeter foundations.

9.11.4 The contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The contractor should use appropriate

equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

9.12 Pavement Design

9.12.1 During grading subgrade samples should be tested to verify the recommendations included in this report remain valid. The pavement design recommendations provided herein are based on the State of California Department of Transportation (CALTRANS) design manual. Based on the results of the R-value testing performed near surface samples and requirements of Caltrans Highway Design Manual, an R-value of 16 was selected for design.

9.12.2 The asphaltic concrete (flexible pavement) is based on a 20-year pavement life utilizing traffic indexes of ranging from 4.0 to 8.0. The Civil Engineer should select the appropriate pavement section based on the anticipated traffic loading. The following table shows the recommended pavement sections for various traffic indices.

TABLE 9.12.2
ASPHALT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Asphaltic Concrete, (inches)	Class 2 Aggregate Base, (inches)*	Compacted Subgrade, (inches)*
4.0	2.5	5.5	12.0
5.0	2.5	.0	12.0
6.0	3.0	11.5	12.0
7.0	4.0	12.5	12.0
8.0	4.5	15.5	12.0

95% compaction based on ASTM D1557 Test Method

9.12.3 The following recommendations are for Portland Cement Concrete pavement sections.

TABLE 9.12.3
PORTLAND CEMENT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Portland Cement Concrete, (inches)*	Class 2 Aggregate Base, (inches)**	Compacted Subgrade. (inches)**
4.0	6.0	4.0	12.0
5.0	6.0	4.0	12.0
6.0	6.0	4.0	12.0
7.0	6.5	4.0	12.0
8.0	6.5	4.0	12.0

**** Minimum Compressive Strength of 4,000 psi,***
***** 95% compaction based on ASTM D1557 Test Method***

9.12.4 Asphalt concrete should conform to Section 39 of Caltrans' latest Standard Specifications for ½ inch Hot Mix Asphalt (HMA) Type A. Asphaltic concrete pavements should be compacted in accordance with Caltrans Standard Specifications (current edition).

9.12.5 Excavations, depressions, or firm and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. Any buried structures encountered during construction should be properly removed and backfilled.

9.12.6 Buried structures encountered during construction should be properly removed/rerouted and the resulting excavations backfilled. It is suspected that demolition activities of the existing pavement will disturb the upper soils. After demolition activities, it is recommended that disturbed soils within pavement areas be removed and/or compacted as engineered fill.

9.12.7 An integral part of satisfactory fill placement is the stability of the placed lift of soil. Prior to placement of aggregate base, the subgrade soils should be proof-rolled by a loaded water truck (or equivalent) to verify no deflections of greater than ½ inch occur. If placed materials exhibit excessive instability as determined by a SALEM field representative, the lift will be considered unacceptable and should be remedied prior to placement of additional fill material. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

9.12.8 A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material.

10. PLAN REVIEW, CONSTRUCTION OBSERVATION AND TESTING

10.1 Plan and Specification Review

10.1.1 SALEM should review the project plans and specifications prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

10.2 Construction Observation and Testing Services

10.2.1 The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for others interpretation of our recommendations, and therefore the future performance of the project.

10.2.2 SALEM should be present at the site during site preparation to observe site clearing, preparation of exposed surfaces after clearing, and placement, treatment and compaction of fill material. SALEM's observations should be supplemented with periodic compaction tests to establish substantial conformance with these recommendations. Moisture content of footings and slab subgrade should be tested immediately prior to concrete placement.

10.2.3 SALEM should observe foundation excavations prior to placement of reinforcing steel or concrete to assess whether the actual bearing conditions are compatible with the conditions anticipated during the preparation of this report.

11. LIMITATIONS AND CHANGED CONDITIONS

The analyses and recommendations submitted in this report are based upon the data obtained from the borings excavated at the approximate locations shown on the Site Plan, Figure 2. The report does not reflect variations which may occur between borings. The nature and extent of such variations may not become evident until construction is initiated. If variations then appear during construction, a re-evaluation of the recommendations of this report will be necessary after performing on-site observations during the excavation period and noting the characteristics of such variations. The findings and recommendations presented in this report are valid as of the present and for the proposed construction.

If site conditions change due to natural processes or human intervention on the property or adjacent to the site, or changes occur in the nature or design of the project, or if there is a substantial time lapse between the submission of this report and the start of the work at the site, the conclusions and recommendations contained in our report will not be considered valid unless the changes are reviewed by SALEM and the conclusions of our report are modified or verified in writing. The validity of the recommendations contained in this report is also dependent upon an adequate testing and observations program during the construction phase. Our firm assumes no responsibility for construction compliance with the design concepts or recommendations unless we have been retained to perform the on-site testing and review during construction. SALEM has prepared this report for the exclusive use of the owner and design consultants.

SALEM does not practice in the field of corrosion engineering. It is recommended that a qualified corrosion engineer be consulted regarding protection of buried steel or ductile iron piping and conduit or, at a minimum, that manufacturer's recommendations for corrosion protection be closely followed. Further, a corrosion engineer may be needed to incorporate the necessary precautions to avoid premature corrosion of concrete slabs and foundations in direct contact with native soil. The importation of soil and or aggregate materials to the site should be screened to determine the potential for corrosion to concrete and buried metal piping. The report has been prepared in accordance with generally accepted geotechnical engineering practices in the area. No other warranties, either express or implied, are made as to the professional advice provided under the terms of our agreement and included in this report.

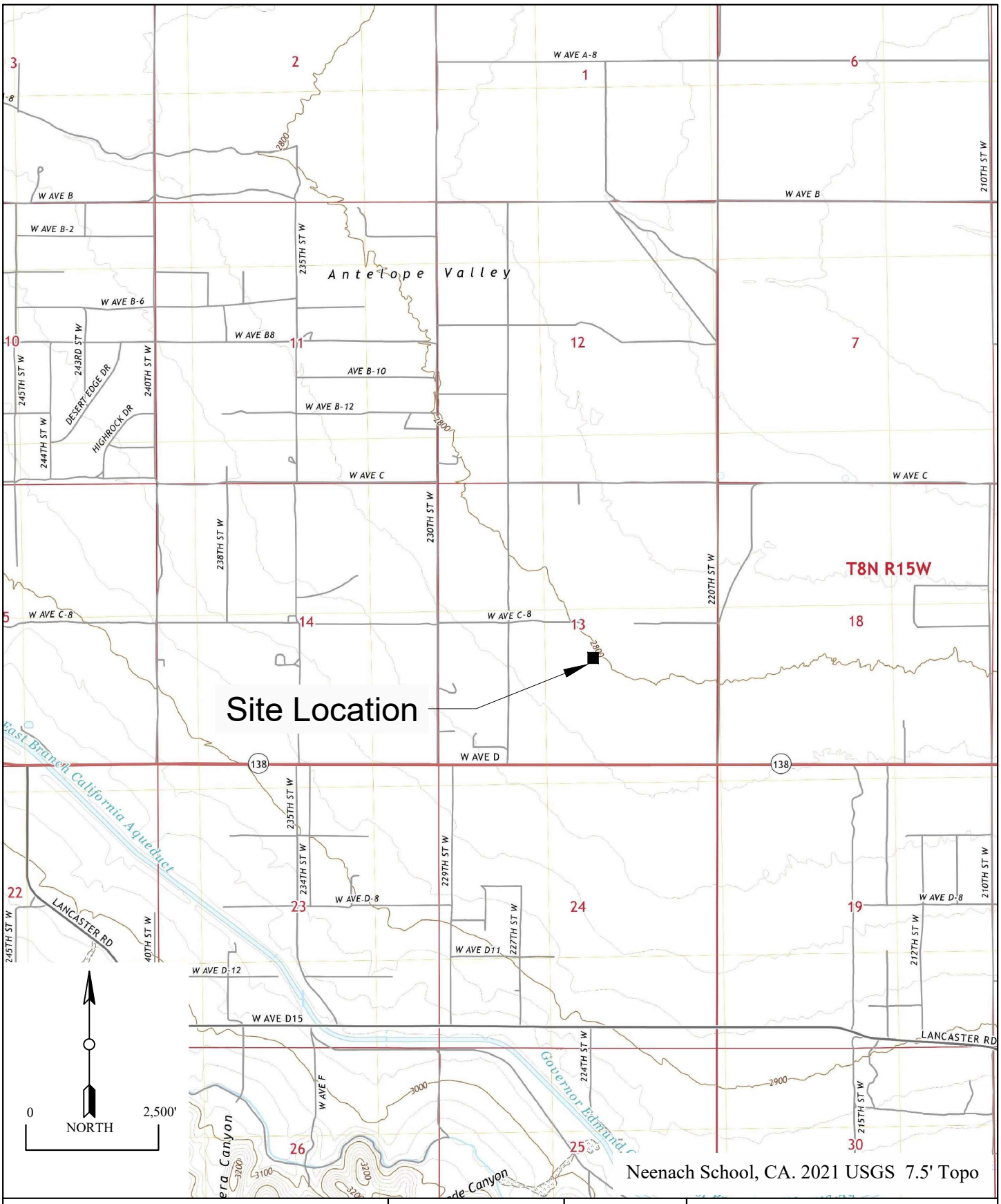
If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 271-9700.

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

Dean B. Ledgerwood II, PE, PG, CEG
Geotechnical Manager
PE 94395 / PG 8725 / CEG 2613

R. Sammy Salem, MS, PE, GE
Principal Managing Engineer
RCE 52762 / RGE 2549



VICINITY MAP	SCALE: 1" = 2500'	DATE: October 30, 2023	SALEM engineering group, inc.
GEOTECHNICAL ENGINEERING INVESTIGATION Proposed 4.99MW Ground Mount Solar Array & BESS Storage Southeast Corner of 230th St. West & West Avenue C 8 Lancaster, California	DRAWN BY: KM	APPROVED BY: DL	
	PROJECT NO. 3-223-1034	FIGURE NO. 1	



SITE PLAN	SCALE: 1" =200'	DATE: October 30, 2023
GEOTECHNICAL ENGINEERING INVESTIGATION Proposed 4.99MW Ground Mount Solar Array & BESS Storage Southeast Corner of 230th St. West & West Avenue C 8 Lancaster, California	DRAWN BY: KM	APPROVED BY: DL
	PROJECT NO. 3-223-1034	FIGURE NO. 2

SALEM
engineering group, inc.

APPENDIX

A

APPENDIX A
FIELD EXPLORATION

Fieldwork for our investigation was conducted on October 18, 2023 and included a site visit, subsurface exploration, and soil sampling. The locations of the exploratory borings are shown on the Site Plan, Figure 2. Boring logs for our exploration are presented in figures following the text in this appendix. Borings were located in the field using existing reference points. Therefore, actual boring locations may deviate slightly.

Our borings were drilled using a truck-mounted CME-75 drilling rig or hand tools. Sampling was accomplished by driving a 2-inch Standard Penetration Test (SPT) sampler and/or a 3-inch outside diameter Modified California Sampler (MCS) 18 inches into the soil. Penetration and/or Resistance tests were performed at selected depths. The resistance/N-Value obtained from driving was recorded based on the number of blows required to penetrate the last 12 inches. The driving energy was provided by an auto-trip hammer weighing 140 pounds, falling 30 inches. Relatively undisturbed MCS soil samples were obtained while performing this test. Bag samples of the disturbed soil were obtained from the SPT samples and auger cuttings. All samples were returned to our Fresno laboratory for evaluation. The test borings were backfilled with excavated soil upon completion of drilling and sampling.

Subsurface conditions encountered in the test borings were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing.

SALEM engineering group, inc.

Test Boring: B-1 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

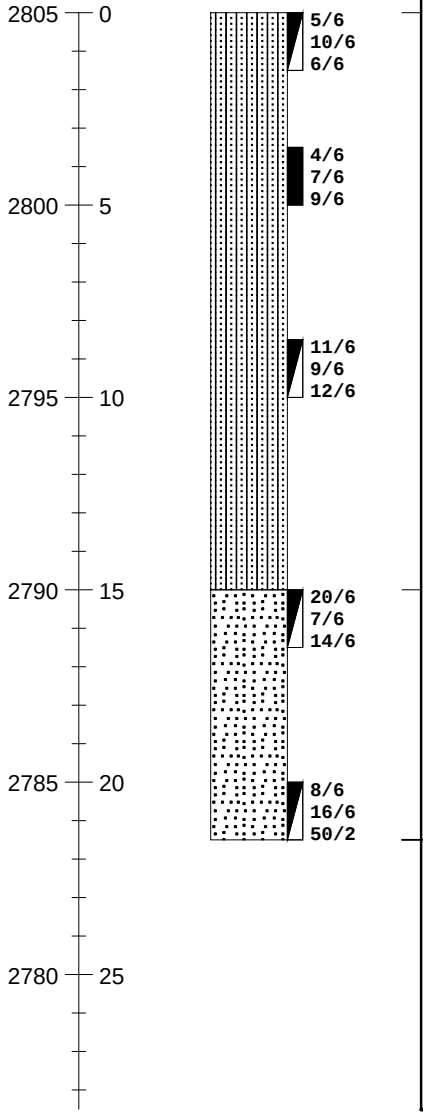
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	16	3.4		-#200=31% R- Value=16 EI=0
			Grades as above;	16	4.2	107.8	ø=44° -#200=25%
			Grades as above;	21	5.6		
		SP	Poorly Graded SAND with silt and gravel; medium dense, brown, dry to damp, fine to coarse grained.	21	3.1.		-#200=6%
			Grades as above; very dense.	>50	2.5		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetaions.*

Figure Number A-1

Test Boring: B-2 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

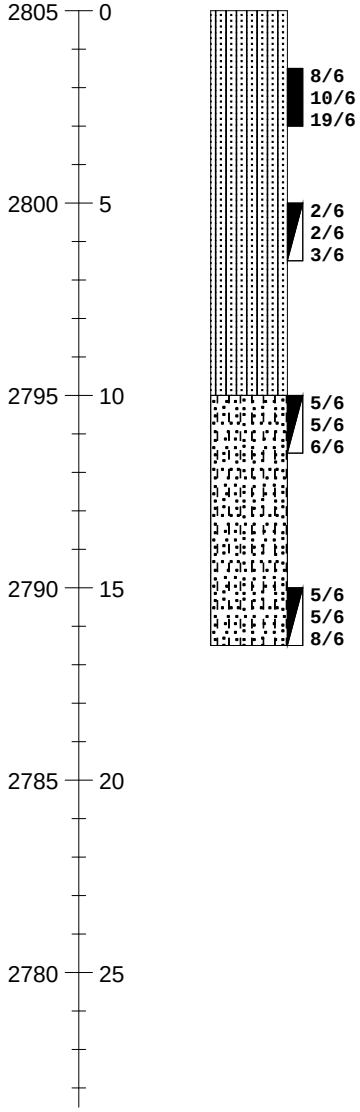
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	29	3.1	118.9	
			Grades as above; loose.	5	5.2		
		SP-SM	Poorly Graded SAND with silt and gravel; medium dense, brown, dry, fine to coarse grained.	11	1.7		
			Grades as above; wit layers of silty clay; medium dense.	13	3.0		
			End of boring at 16.5 feet BSG				

Notes: *Desert with vegetations.*

Figure Number A-2

SALEM engineering group, inc.

Test Boring: B-3 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

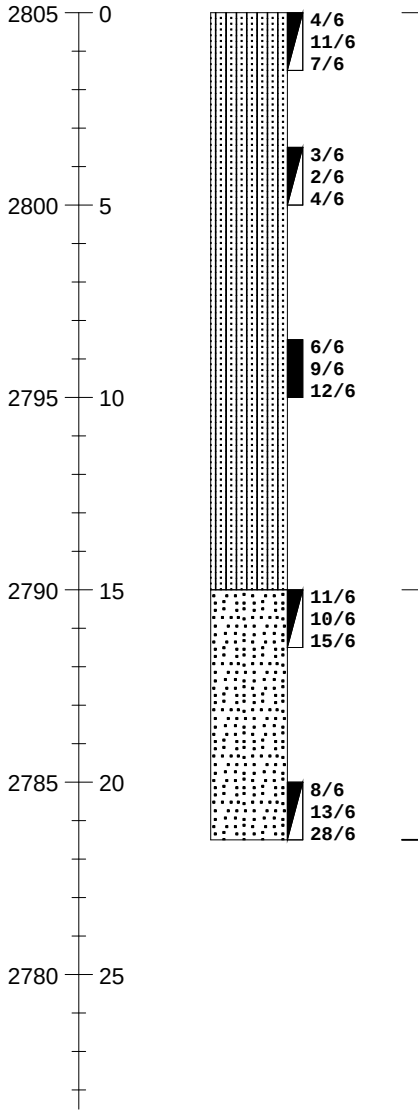
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	18	3.2		
			Grades as above; loose.	6	3.4		
			Grades as above; medium dense.	21	9.1	120.0	ø=44°
		SP	Poorly Graded SAND with gravel; medium dense, light brown, dry, fine to coarse grained.	25	2.7		
			Grades as above; dense.	41	2.9		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-3

Test Boring: B-4 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

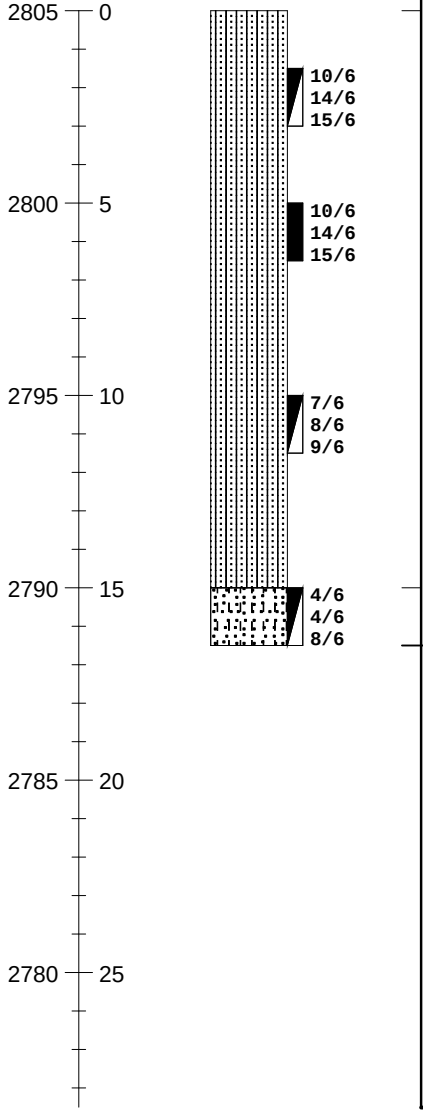
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; loose, brown, damp, fine to medium grained.	8	3.8		-#200=27%
			Grades as above; medium dense.	29	2.0	108.4	
			Grades as above;	17	4.2		-#200=17%
		SP-SM	Poorly Graded SAND with gravel and silt; medium dense, light brown, damp, fine to coarse grained.	12	2.5		
			End of boring at 16.5 feet BSG .				

Notes: *Desert with vegetations.*

Figure Number A-4

SALEM engineering group, inc.

Test Boring: B-5 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

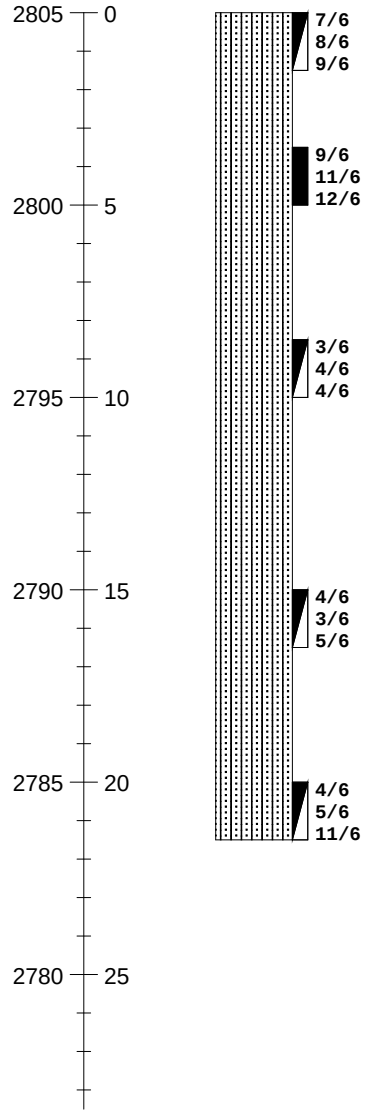
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	17	5.8		
			Grades as above;	23	4.3	112.6	
			Grades as above; loose.	8	5.3		
			Grades as above;	8	7.1		
			Grades as above; medium dense.	16	6.4		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-5

Test Boring: B-6 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

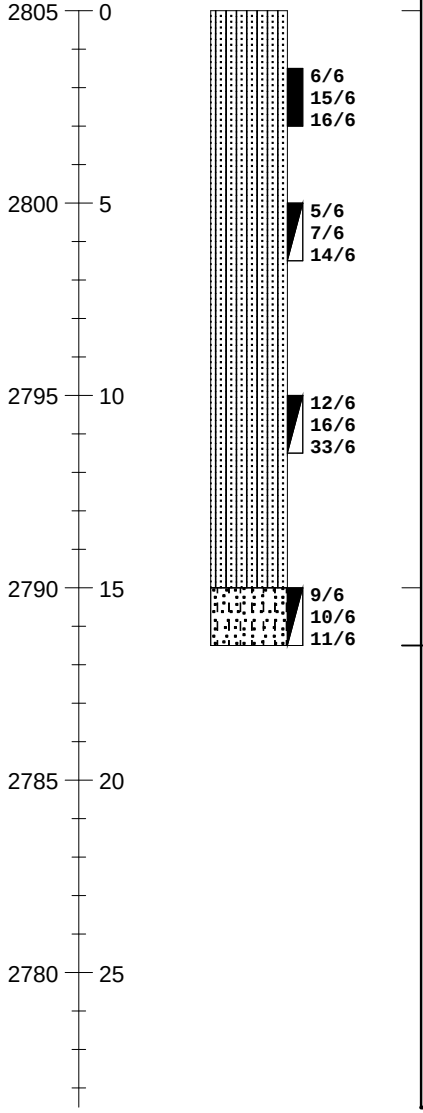
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0	6/6 15/6 16/6	SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	31	6.6	101.2	
5	5/6 7/6 14/6		Grades as above;	21	4.9		
10	12/6 16/6 33/6		Grades as above;	49	8.2		
15	9/6 10/6 11/6	SP-SM	Poorly Graded SAND with silt and gravel; medium dense, light brown, dry, fine to coarse grained.	21	3.1		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-6

Test Boring: B-7 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

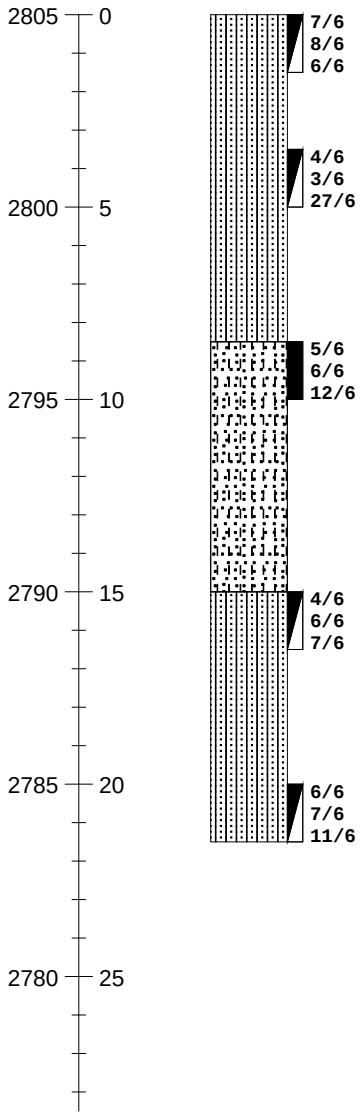
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	14	3.6		-#200=28% PI=0 LL=20
			Grades as above;	30	3.3		
		SP-SM	Poorly Graded SAND with silt; medium dense, brown, damp, fine to medium grained. non-plastic.	18	3.2	106.6	-#200=11%
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	13	8.8		
			Grades as above;	18	5.5		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-7

Test Boring: B-8 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

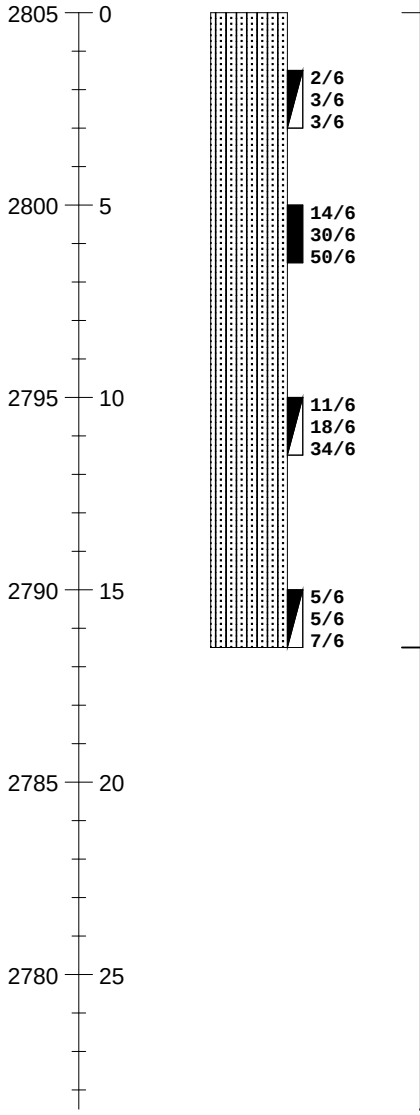
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; loose, brown, damp, fine to medium grained.	6	4.8		-#200=35%
			Grades as above; very dense.	>50	5.4	118.8	
			Grades as above;	>50	7.9		-#200=33%
		SM	Grades as above; medium dense.	12	3.6		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-8

Test Boring: B-9 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

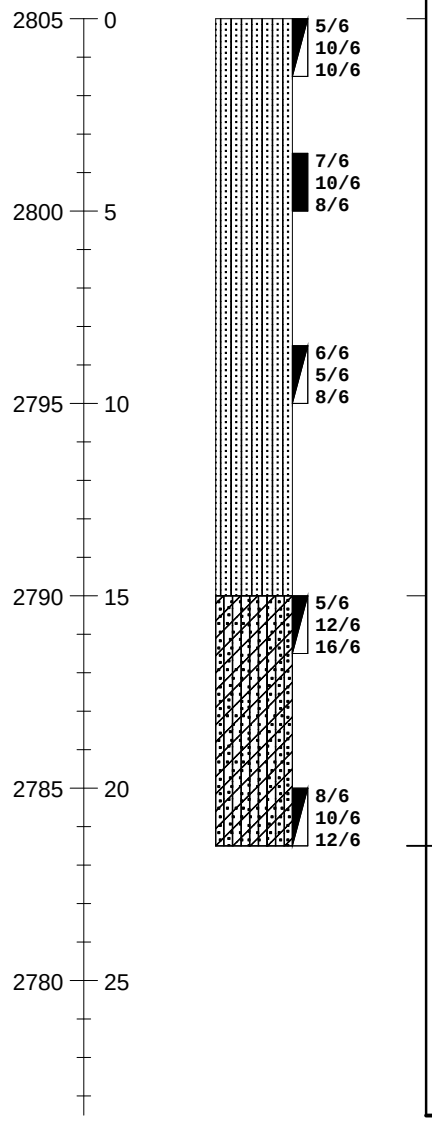
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	20	3.1		
			Grades as above;	18	3.4	118.1	
			Grades as above;	13	4.5		
			Grades as above; light brown, Increase in percent gravel, fine to coarse grained	28	5.4		
			Grades as above;	22	4.6		
			End of boring at 20 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-9

SALEM engineering group, inc.

Test Boring: B-10 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

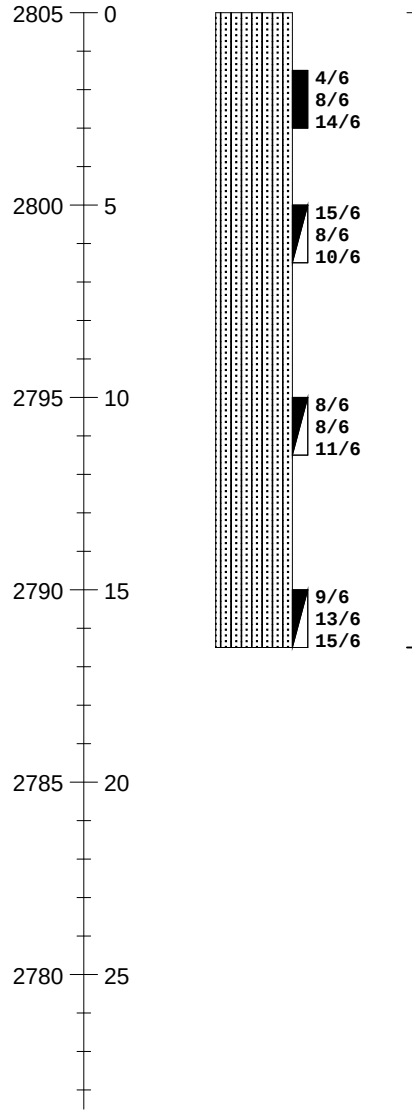
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	22	4.0	110.2	R-Value=26
			Grades as above;	18	5.5		
			Grades as above;	19	5.0		
			Grades as above;	28	8.0		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-10

SALEM engineering group, inc.

Test Boring: B-11 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

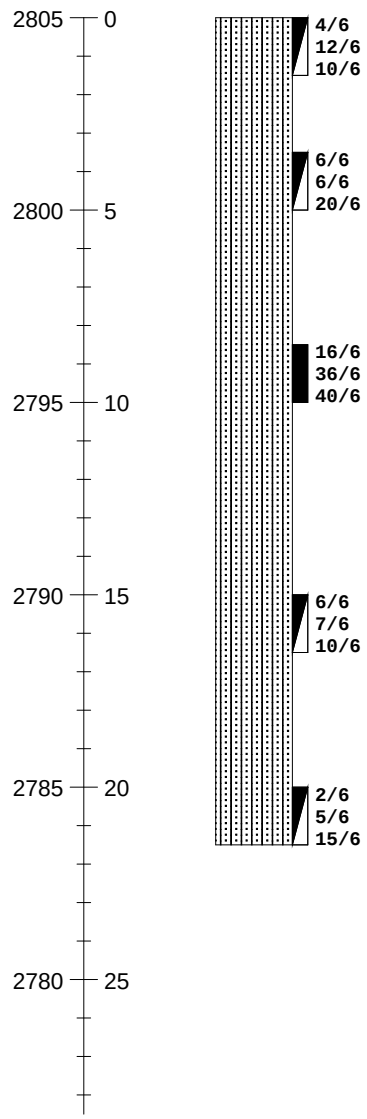
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	22	3.1		-#200=32%
			Grades as above;	26	4.1		
			Increase on percent fines, very dense.	>50	7.2	123.5	ø=43° -#200=44% PI=9 LL=27
			Grades as above; medium dense.	17	5.8		
			Grades as above;	20	5.9		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-11

SALEM engineering group, inc.

Test Boring: B-12 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

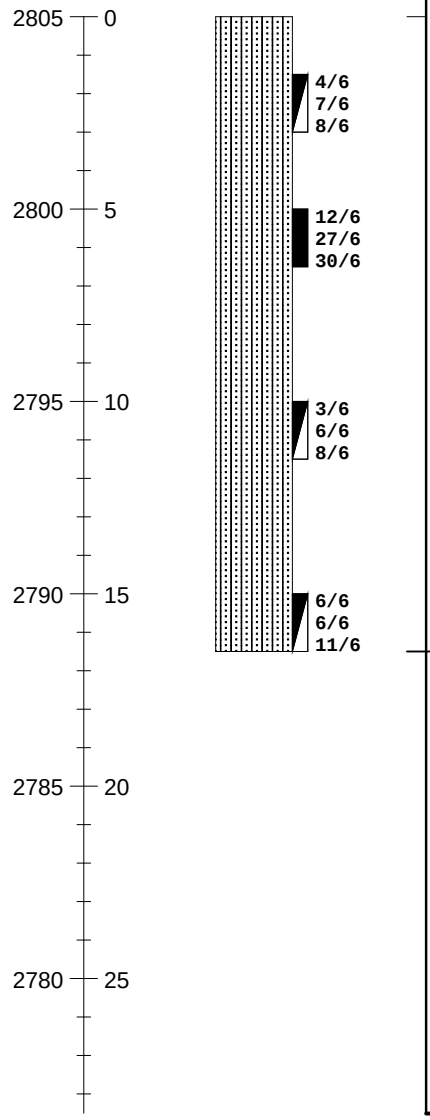
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	15	6.5		
			Grades as above; very dense.	>50	5.5	128.2	
			Grades as above; medium dense.	14	2.8		
			Grades as above;	17	2.9		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-12

Test Boring: B-13 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

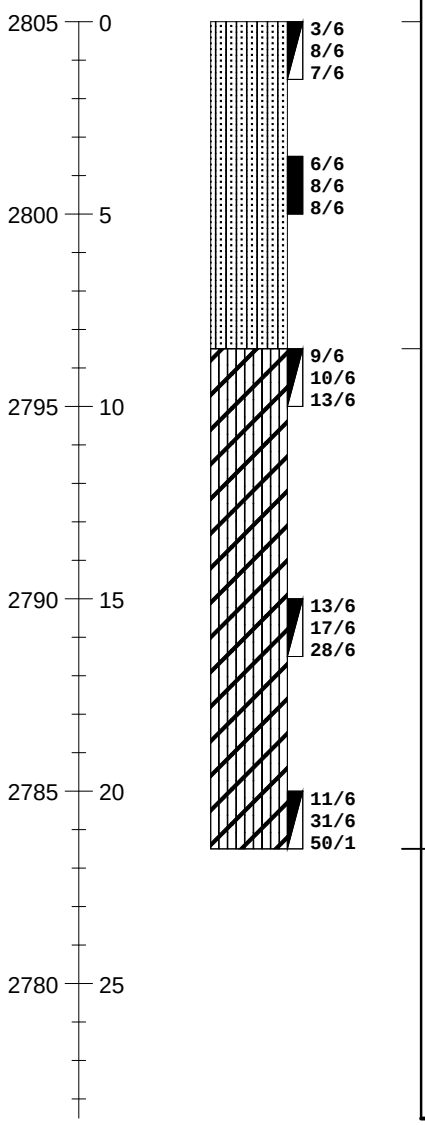
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	15	2.7		-#200=24%
			Grades as above;	16	3.4	111.2	
		CL-ML	Grades as above;	23	7.6		-#200=21%
			Grades as above; dense.	45	9.2		
			Grades as above; very dense.	>50	6.6		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-13

Test Boring: B-14 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

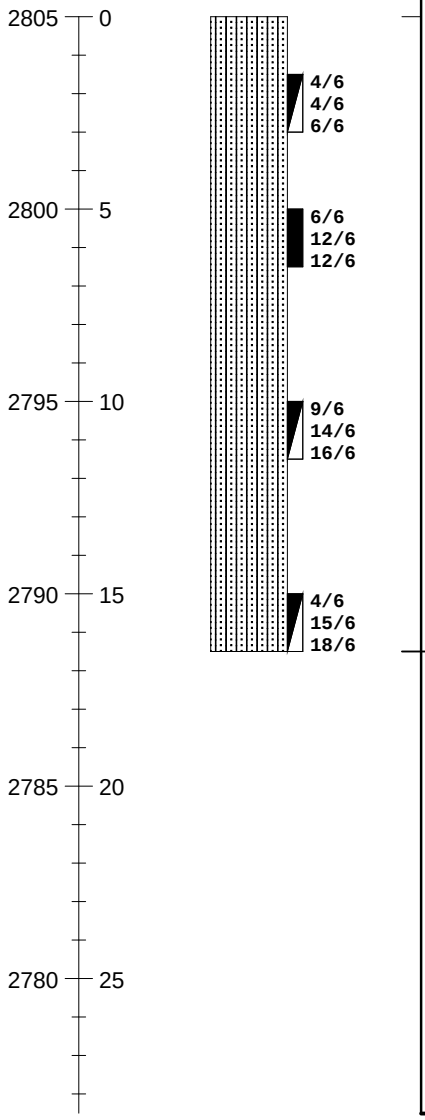
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	10	3.0		
			Grades as above;	24	2.2	113.5	ø=43°
			Grades as above;	30	3.7		
			Grades as above;	33	3.1		
			End of boring at 16.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-14

Test Boring: B-15 **Page** 1 **Of:** 1

Project Number: 3-223-1034

Date: October 18, 2023

Client: Renewable Properties.

Project: Proposed 4.99MW Ground Mount Solar Array and BESS Storage

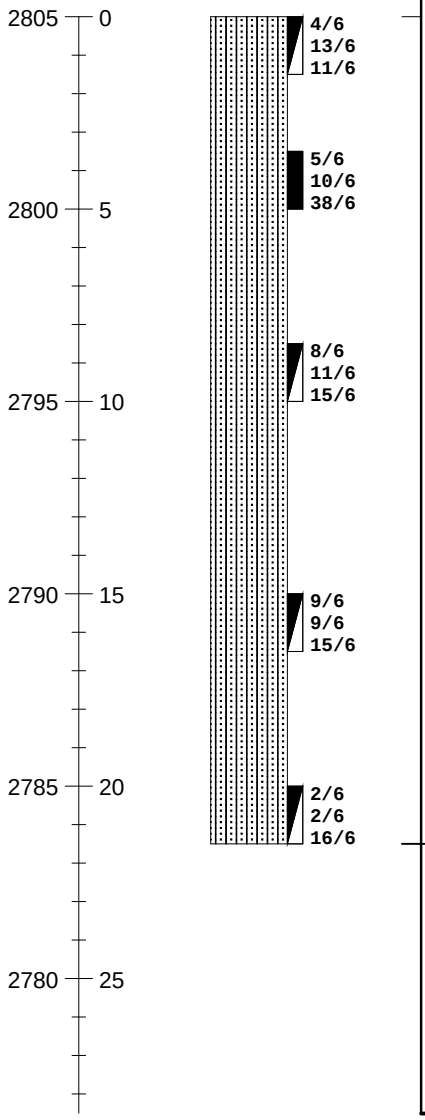
Location: Southeast Corner of 230th Street West and West Avenue C 8, Lancaster, Califorina

Drilled By: Salem Engineering Group, Inc. **Logged By:** C.R

Drill Type: CME-75 **Elevation:** 2805 feet AMSL

Auger Type: 6-5/8 inch Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: 140lbs/30in Automatic Trip **Final Depth to Groundwater:**



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, brown, damp, fine to medium grained.	24	3.7		
			Grades as above; dense.	48	4.4	122.6	-#200=28% PI=8 LL=29
			Grades as above; medium dense.	26	4.4		
			Grades as above;	24	6.1		
			Grades as above;	18	6.0		
			End of boring at 21.5 feet BSG.				

Notes: *Desert with vegetations.*

Figure Number A-15

KEY TO SYMBOLS

Symbol Description

Strata symbols



Silty Sand



Poorly graded sand



Poorly graded sand with silt



Silty, Clayey SAND



Silty low plasticity clay

Soil Samplers



Standard penetration test



California sampler

Notes:

Granular Soils
Blows Per Foot (Uncorrected)

	MCS	SPT
Very loose	<5	<4
Loose	5-15	4-10
Medium dense	16-40	11-30
Dense	41-65	31-50
Very dense	>65	>50

Cohesive Soils
Blows Per Foot (Uncorrected)

	MCS	SPT
Very soft	<3	<2
Soft	3-5	2-4
Firm	6-10	5-8
Stiff	11-20	9-15
Very Stiff	21-40	16-30
Hard	>40	>30

MCS = Modified California Sampler
SPT = Standard Penetration Test Sampler

Percolation Test Worksheet

Project:	**4.99MW Gound Mount Solar & Bess Storage**	**Job No.:**	**3-223-1034**	Length of Pipe	60 in.
	Lancaster, CA.	**Date Drilled:**	**10/19/2023**	Pipe stickup:	0.67 ft
		Soil Classification:		Hole Dia.:	7.75 in.
				Pipe Dia.:	3 in.
Test Hole No.:	**P-1**			Gravel Below Pipe:	0 in.
Tested By:	**CC**	**Presoaking Date:**	**10/19/2023**	Gravel pack porosity:	0.4
Drilled Hole Depth:	**4.3 Feet**	**Test Date:**	**10/19/2023**	Gravel Correc Factor:	0.5

Time Start	Time Finish	Refill-Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Uncorrected Percolation Rate (min/in)	Gravel Pack Corrected Unfactored Percolation Rate (min/in)	Estimated Unfactored Infiltration Rate (inches/hr)
11:20	11:50	N	0:30	2.35	3.01	7.92	30	3.8	7.7	0.51
11:50	12:20	N	0:30	3.01	3.33	3.84	30	7.8	15.9	0.31
12:20	12:50	N	0:30	3.33	3.62	3.48	30	8.6	17.6	0.33
12:52	13:22	Y	0:30	2.46	3.05	7.08	30	4.2	8.6	0.47
13:22	13:52	N	0:30	3.05	3.32	3.24	30	9.3	18.9	0.26
13:52	14:22	N	0:30	3.32	3.56	2.88	30	10.4	21.3	0.27
								Estimated Unfactored Infiltration Rate (in/hr)		0.34

measured from top of pipe

SALEM
engineering group, inc.

Percolation Test Worksheet

Project:	**4.99MW Gound Mount Solar & Bess Storage**	**Job No.:**	**3-223-1034**	Length of Pipe	64 in.
	Lancaster, CA.	**Date Drilled:**	**10/19/2023**	Pipe stickup:	0.7 ft
		Soil Classification:		Hole Dia.:	6 in.
				Pipe Dia.:	3 in.
Test Hole No.:	**P-2**			Gravel Below Pipe:	-2 in.
Tested By:	**CC**	**Presoaking Date:**	**10/19/2023**	Gravel pack porosity:	0.4
Drilled Hole Depth:	**4.5 Feet**	**Test Date:**	**10/19/2023**	Gravel Correc Factor:	0.6

Time Start	Time Finish	Refill- Yes or No	Elapsed Time (hrs:min)	Initial Water Level# (ft)	Final Water Level# (ft)	Δ Water Level (in.)	Δ Min.	Uncorrected Percolation Rate (min/in)	Gravel Pack Corrected Unfactored Percolation Rate (min/in)	Estimated Unfactored Infiltration Rate (inches/hr)
11:10	11:40	N	0:30	2.37	3.13	9.12	30	3.3	6.0	0.49
11:40	12:10	N	0:30	3.13	3.49	4.32	30	6.9	12.6	0.30
12:10	12:40	N	0:30	3.49	3.81	3.84	30	7.8	14.2	0.32
12:42	13:12	Y	0:30	2.63	3.12	5.88	30	5.1	9.3	0.33
13:12	13:42	N	0:30	3.12	3.40	3.36	30	8.9	16.2	0.23
13:42	14:12	N	0:30	3.40	3.66	3.12	30	9.6	17.5	0.24
								Estimated Unfactored Infiltration Rate (in/hr)		0.27

measured from top of pipe

SALEM
engineering group, inc.

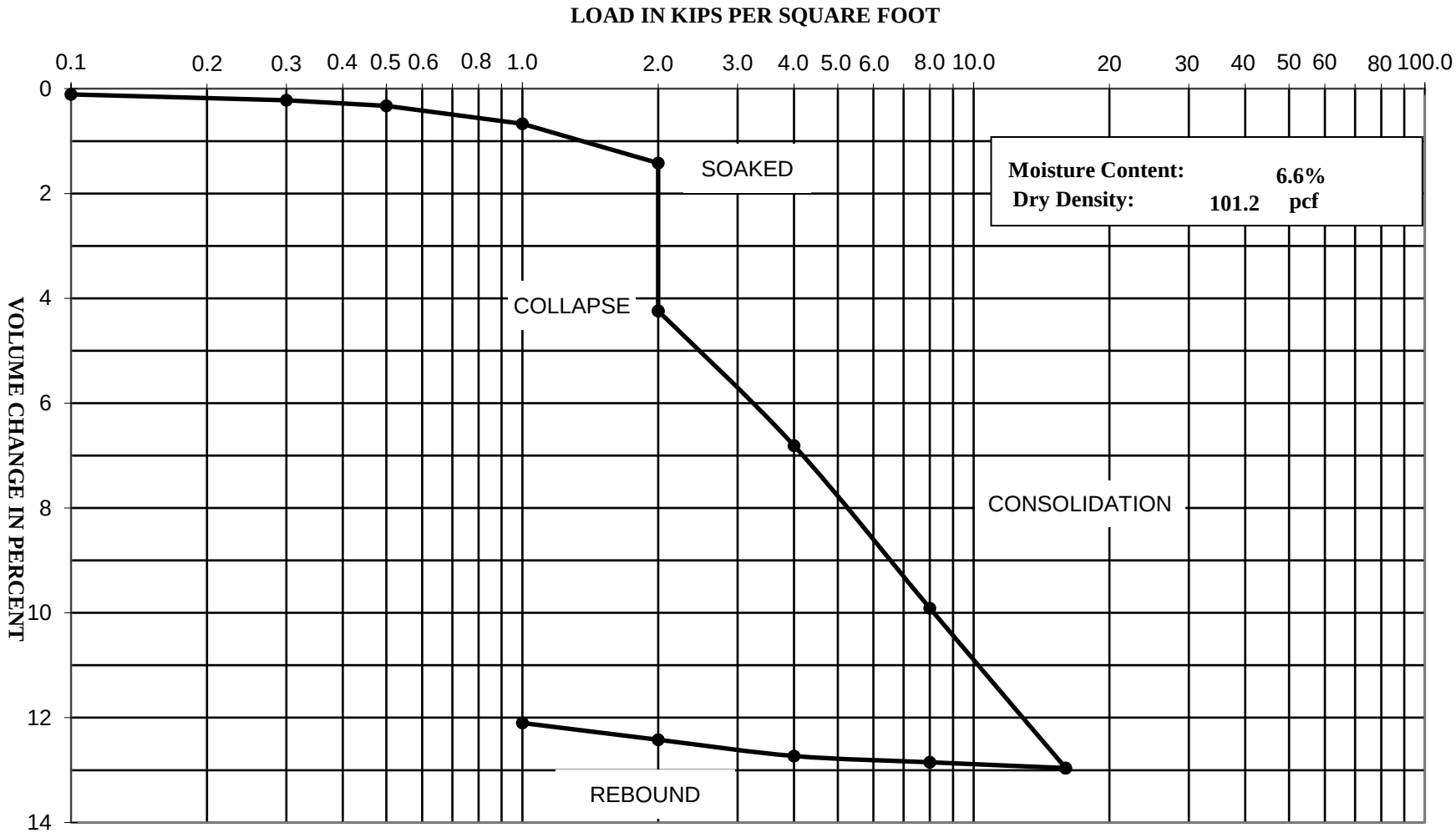
APPENDIX

B

APPENDIX B
LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM), Caltrans, or other suggested procedures. Selected samples were tested for in-situ moisture content, corrosivity, shear strengths, expansion index, soil resistivity, plasticity index, and grain size distribution. The results of the laboratory tests are summarized in the following figures.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D2435



Project Name: 4.99MW Solar & BESS - Lancaster

Project Number: 3-223-1034

Boring: B-6 @ 1.5'

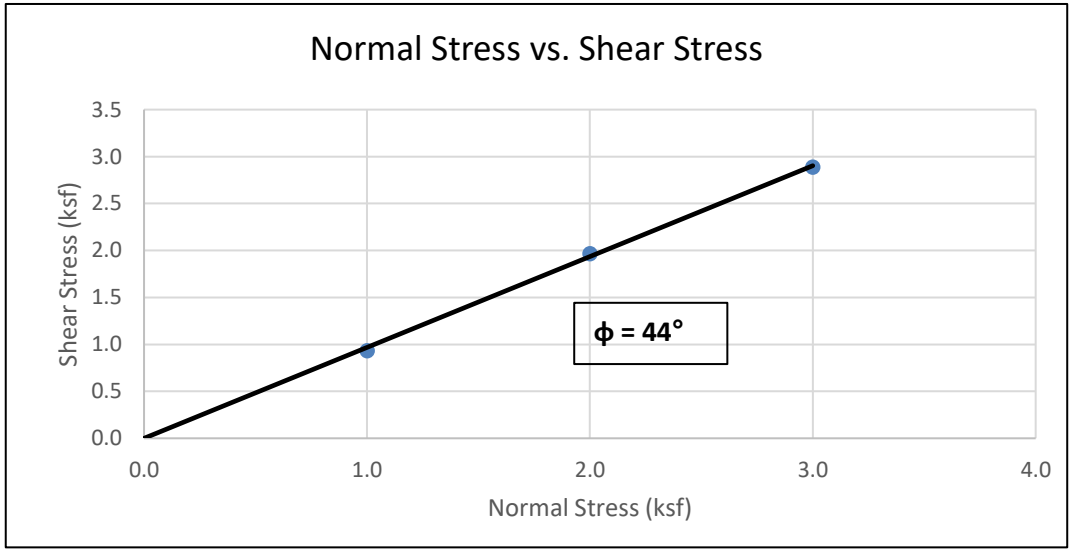
SALEM engineering group, inc.

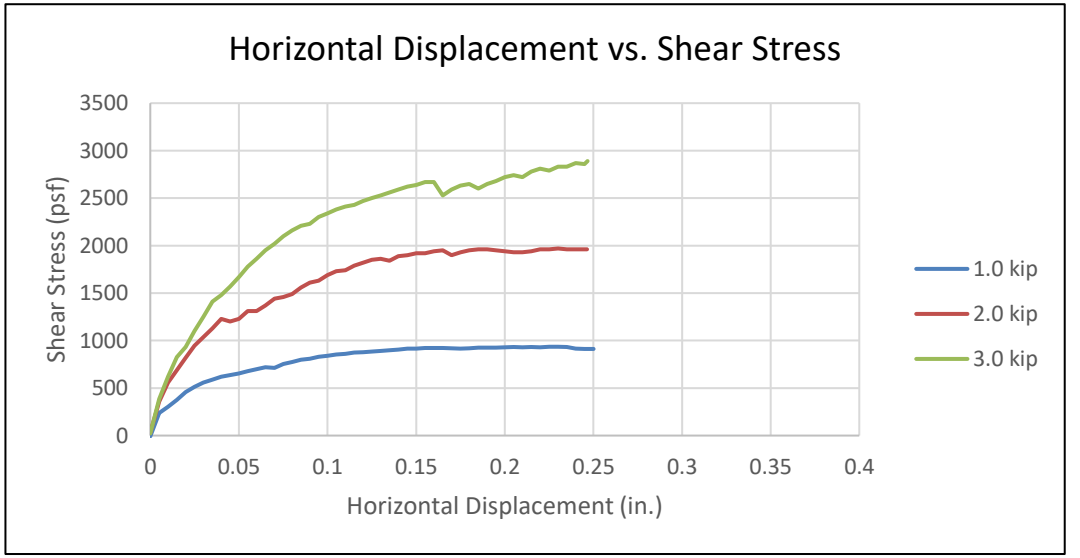
Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-1 @ 3.5'
Soil Type: Silty Sand (SM)
Sample Type: Undisturbed Ring
Tested By: NL
Reviewed By:
Date of Test: 10/26/23
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	0.94	1.97	2.89

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.913	0.893	0.871
Post-Shear Sample Height (in.)	0.896	0.871	0.849
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)	4.2		
Dry Density (pcf)	107.4	105.2	101.1
Saturation %	20.3	19.1	17.3
Void Ratio	0.56	0.60	0.66
Consolidated Void Ratio	0.43	0.43	0.45
Final (post-shear) Values			
Final Moisture Content (%)	17.1	15.7	14.7
Dry Density (pcf)	114.5	115.7	113.0
Saturation %	80.3	77.7	71.8
Void Ratio	0.57	0.54	0.55





Peak Shear Strength Values	
Slope	0.98
Friction Angle	44
Cohesion (psf)	0

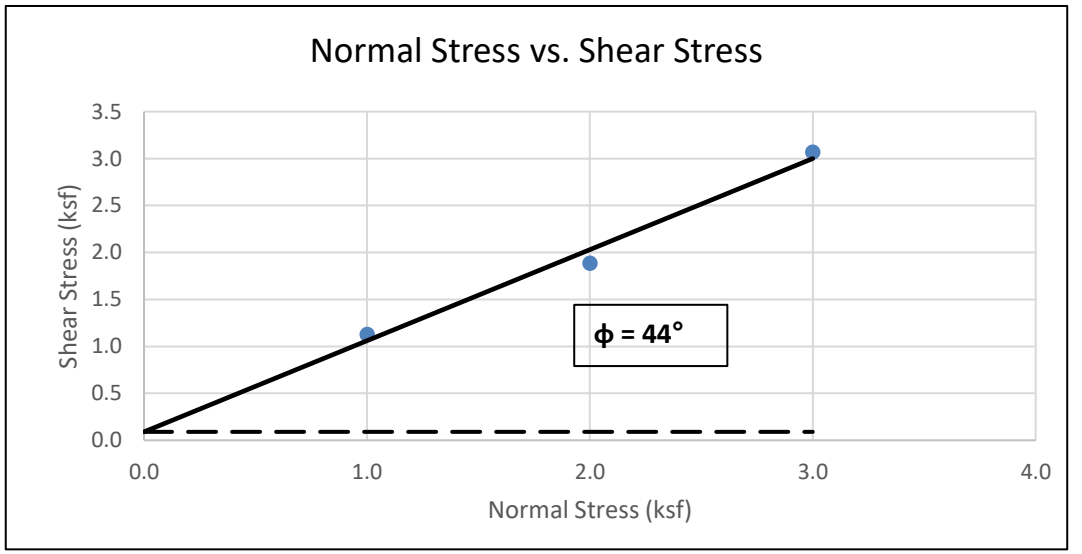
SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

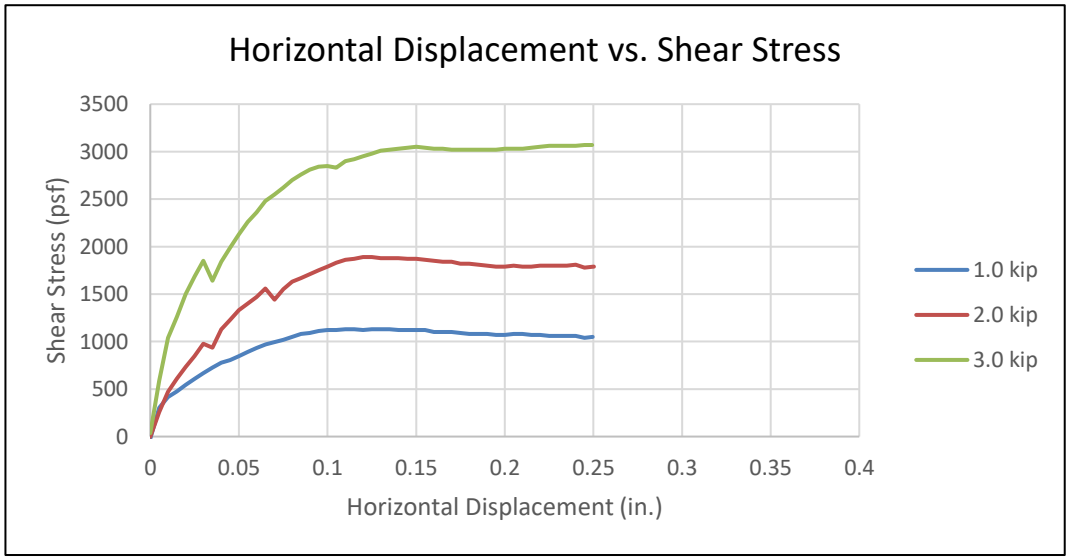
Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-3 @ 8.5'
Soil Type:
Sample Type: Undisturbed Ring
Tested By: NL / MC
Reviewed By:
Date of Test: 10/26/23 & 10/27/23
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	1.13	1.89	3.07

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.957	0.935	0.926
Post-Shear Sample Height (in.)	0.955	0.948	0.911
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)		9.1	
Dry Density (pcf)	111.7	113.9	119.9
Saturation %	48.5	51.4	60.9
Void Ratio	0.50	0.47	0.40
Consolidated Void Ratio	0.44	0.38	0.30
Final (post-shear) Values			
Final Moisture Content (%)	16.0	16.4	15.6
Dry Density (pcf)	119.0	115.9	126.5
Saturation %	81.7	89.8	119.1
Void Ratio	0.53	0.49	0.35



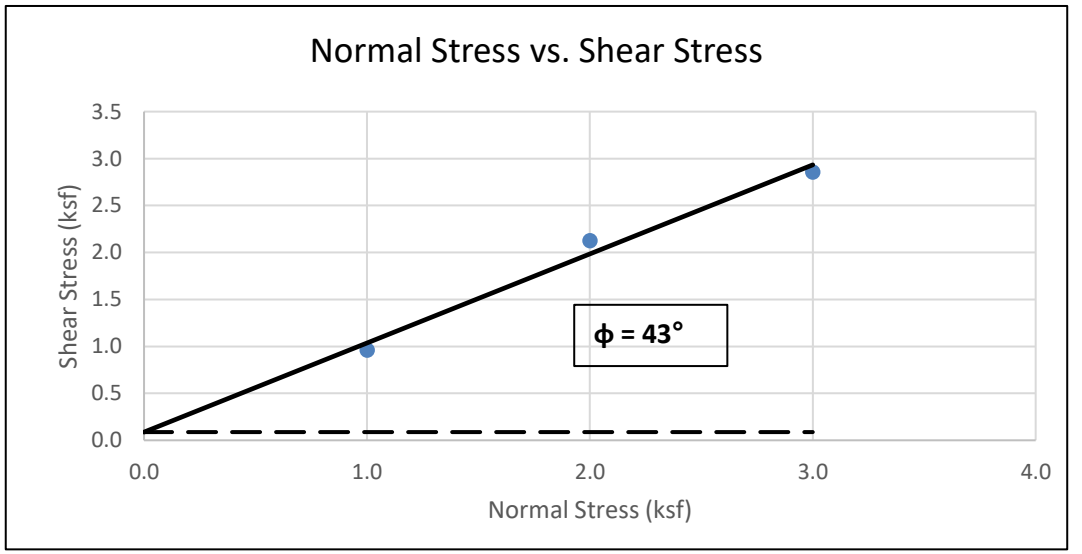


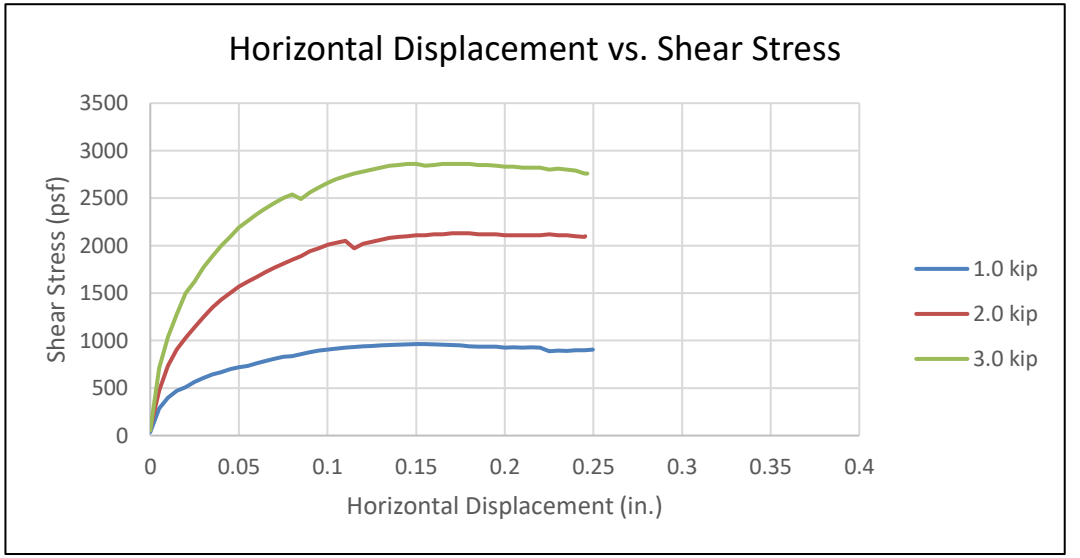
Peak Shear Strength Values	
Slope	0.97
Friction Angle	44
Cohesion (psf)	90

SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-11 @ 8.5'
Soil Type:
Sample Type: Undisturbed Ring
Tested By: NL
Reviewed By:
Date of Test: 10/27/23
Test Equipment: GeoComp ShearTrac II





	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	0.96	2.13	2.86

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.917	0.889	0.868
Post-Shear Sample Height (in.)	0.897	0.871	0.849
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)		7.2	
Dry Density (pcf)	124.5	127.8	122.3
Saturation %	55.7	61.9	52.2
Void Ratio	0.35	0.31	0.37
Consolidated Void Ratio	0.24	0.17	0.19
Final (post-shear) Values			
Final Moisture Content (%)	19.5	18.4	16.9
Dry Density (pcf)	121.9	130.1	127.5
Saturation %	150.3	187.2	167.6
Void Ratio	0.35	0.26	0.27

Peak Shear Strength Values	
Slope	0.95
Friction Angle	43
Cohesion (psf)	87

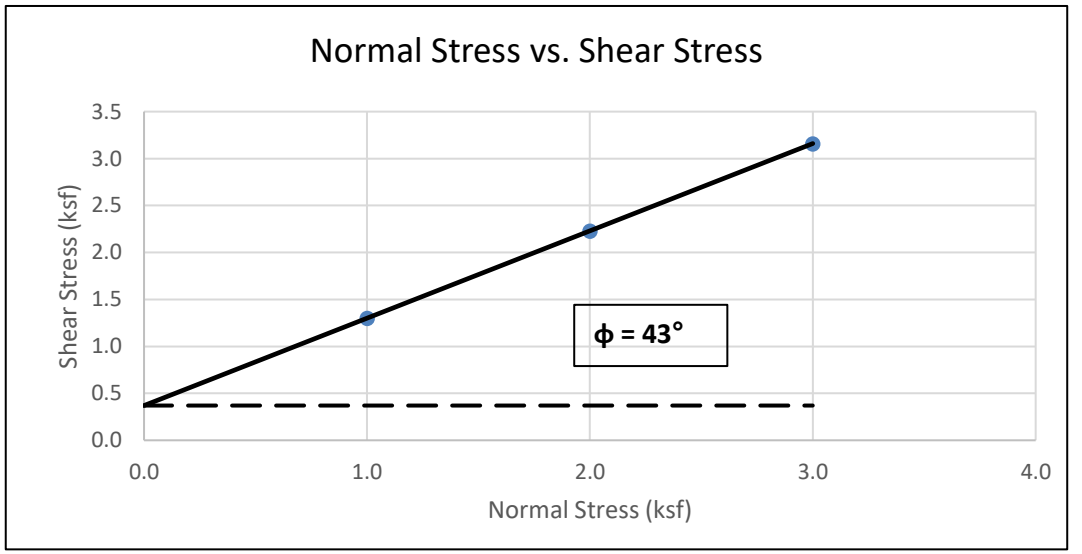
SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

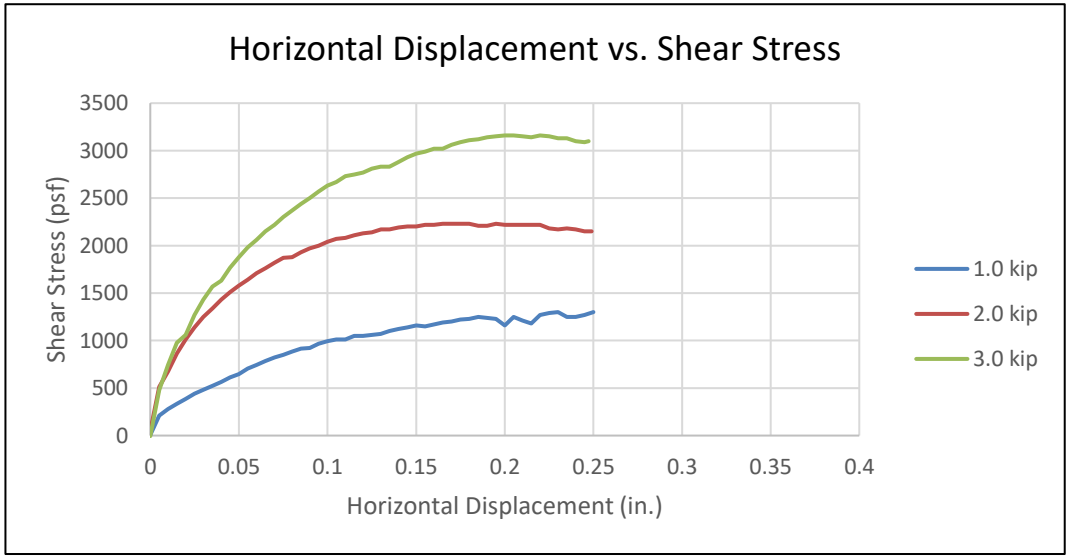
Direct Shear Test (ASTM D3080)

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Client:
Boring: B-14 @ 5'
Soil Type:
Sample Type: Undisturbed Ring
Tested By: NL
Reviewed By:
Date of Test: 10/27/23
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	1.30	2.23	3.16

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.965	0.960	0.930
Post-Shear Sample Height (in.)	0.946	0.955	0.915
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)	2.2		
Dry Density (pcf)	107.6	111.4	107.8
Saturation %	10.5	11.6	10.6
Void Ratio	0.55	0.50	0.55
Consolidated Void Ratio	0.50	0.44	0.44
Final (post-shear) Values			
Final Moisture Content (%)	17.6	17.4	17.2
Dry Density (pcf)	106.9	108.5	109.0
Saturation %	68.2	72.3	73.7
Void Ratio	0.69	0.64	0.62



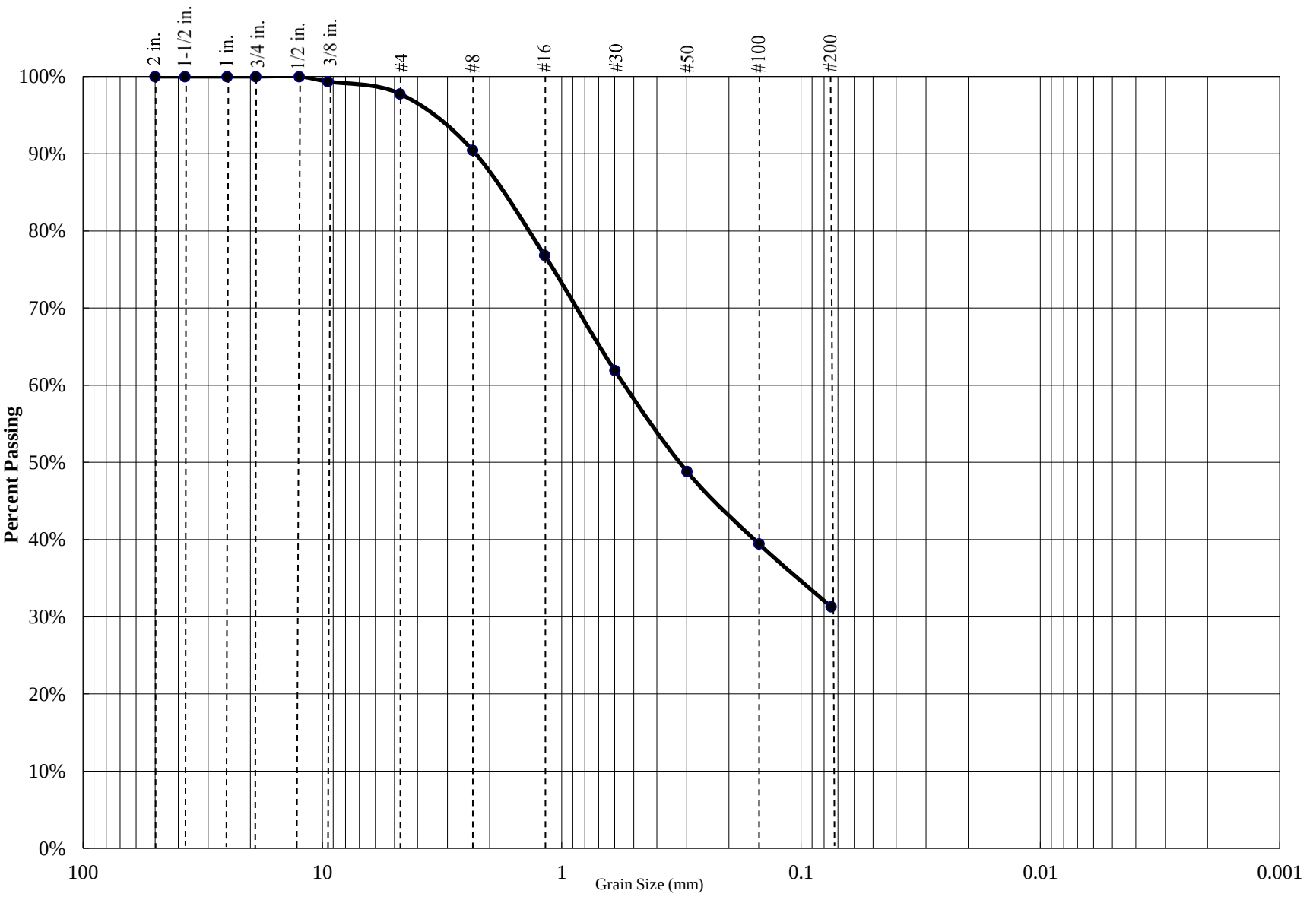


Peak Shear Strength Values	
Slope	0.93
Friction Angle	43
Cohesion (psf)	370

SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	67%	31%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	99.3%
#4	97.8%
#8	90.5%
#16	76.9%
#30	61.9%
#50	48.8%
#100	39.5%
#200	31.3%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

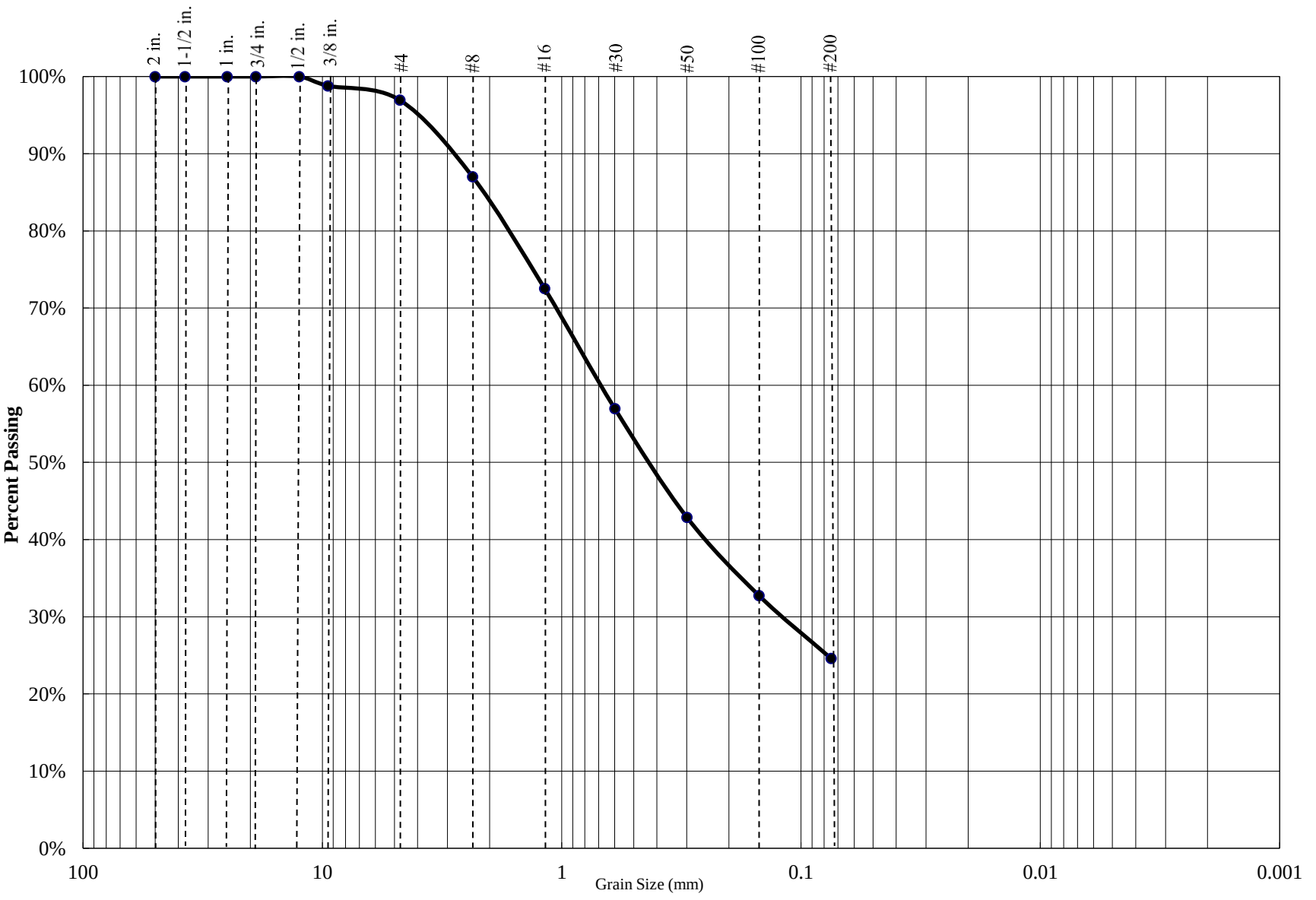
Project Number: 3-223-1034

Boring: B-1 @ 0 - 4'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	72%	25%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	98.8%
#4	96.9%
#8	87.0%
#16	72.6%
#30	57.0%
#50	42.9%
#100	32.8%
#200	24.6%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

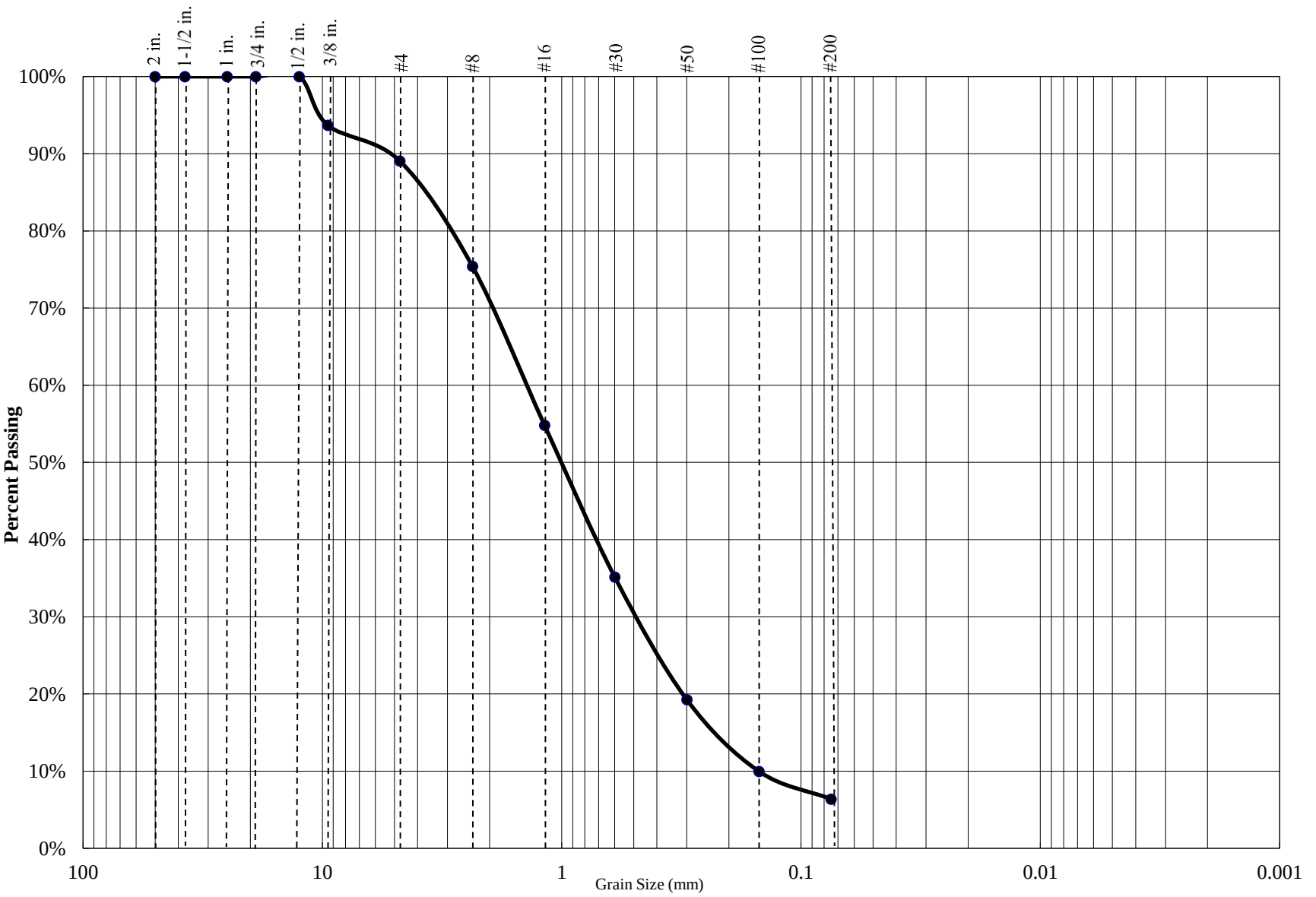
Project Number: 3-223-1034

Boring: B-1 @ 3.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
11%	83%	6%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	93.7%
#4	89.1%
#8	75.4%
#16	54.8%
#30	35.1%
#50	19.3%
#100	10.0%
#200	6.4%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients			
D_{85}=		**D_{60}=**	**D_{50}=**
D_{30}=		**D_{15}=**	**D_{10}=**
C_u=	N/A	**C_c=**	N/A

USCS CLASSIFICATION
Poorly Graded Sand with Silt (SP-SM)

Project Name: 4.99MW Solar & BESS - Lancaster

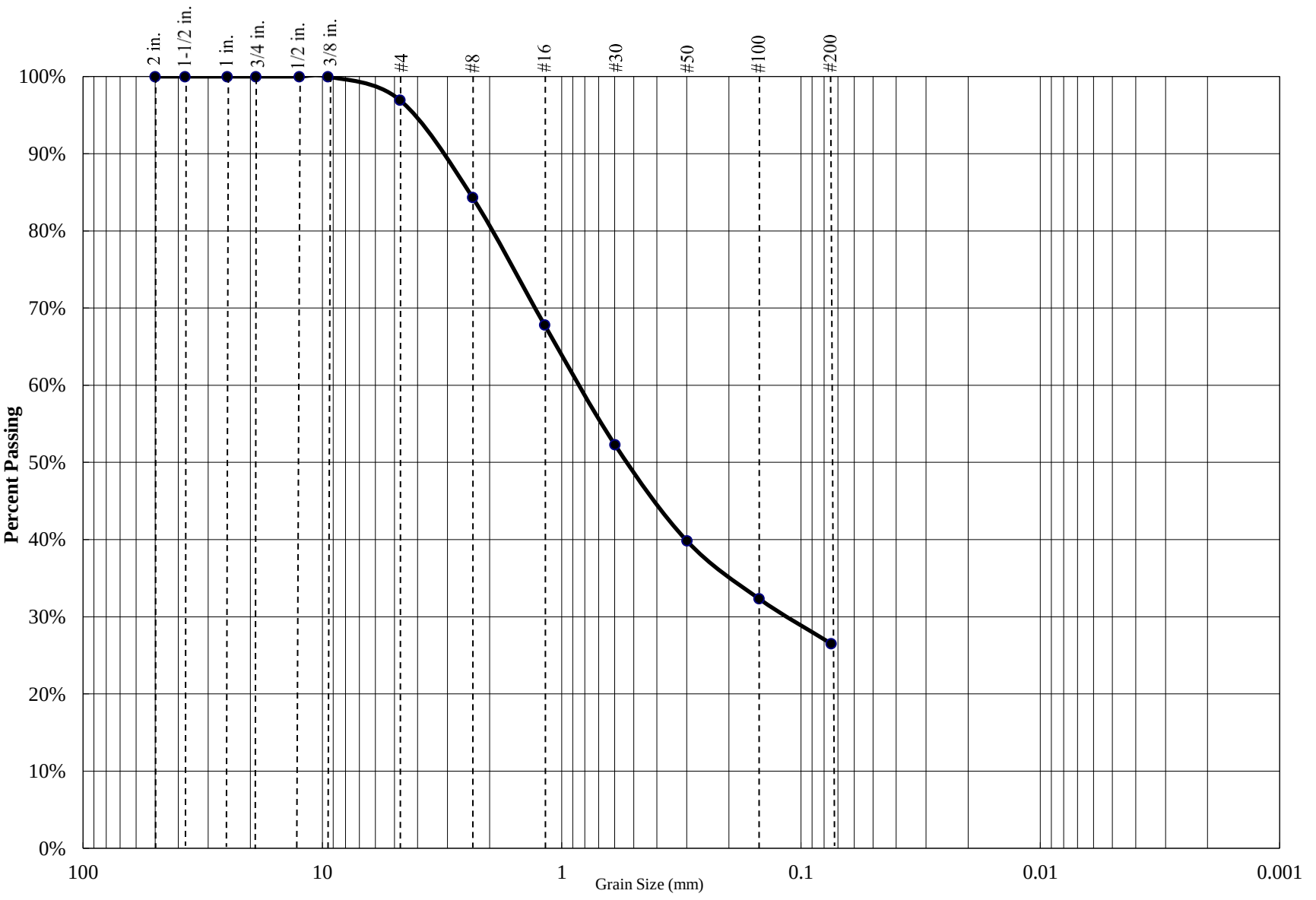
Project Number: 3-223-1034

Boring: B-1 @ 15'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	70%	27%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	97.0%
#8	84.4%
#16	67.8%
#30	52.3%
#50	39.8%
#100	32.3%
#200	26.5%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

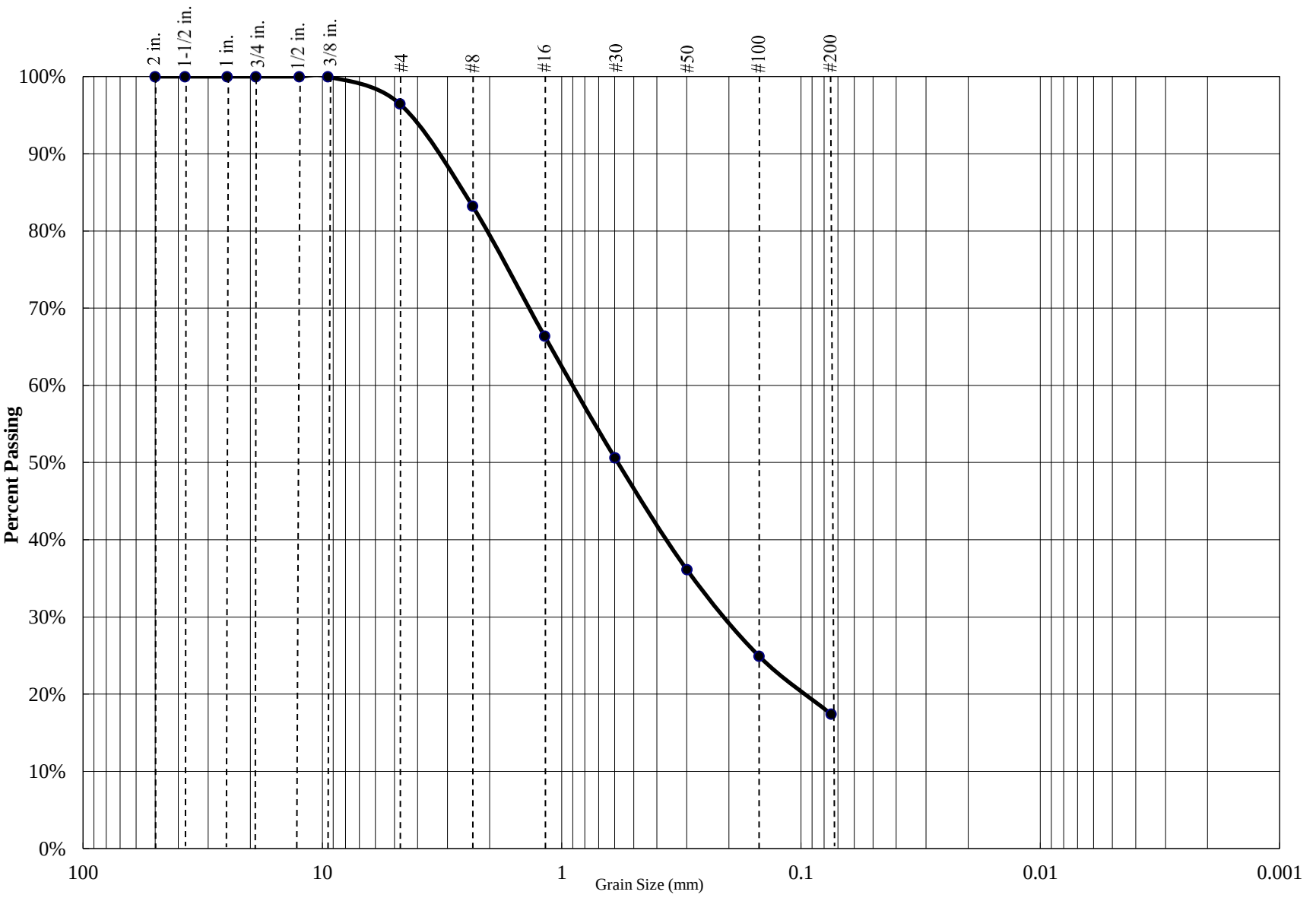
Project Number: 3-223-1034

Boring: B-4 @ 1.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
4%	79%	17%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	96.5%
#8	83.2%
#16	66.4%
#30	50.6%
#50	36.1%
#100	24.9%
#200	17.4%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

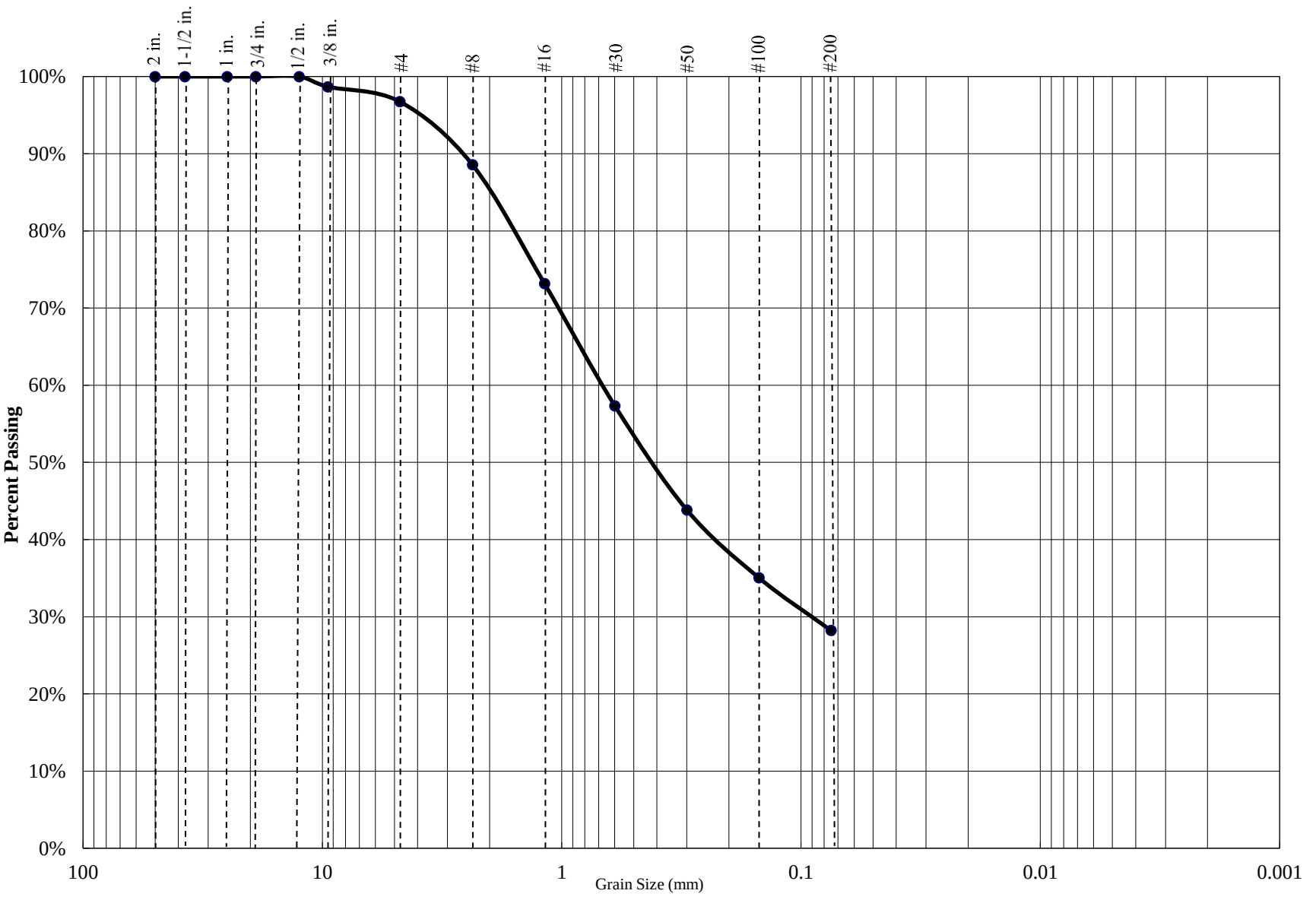
Project Number: 3-223-1034

Boring: B-4 @ 10'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	69%	28%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	98.7%
#4	96.7%
#8	88.6%
#16	73.2%
#30	57.3%
#50	43.8%
#100	35.0%
#200	28.2%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

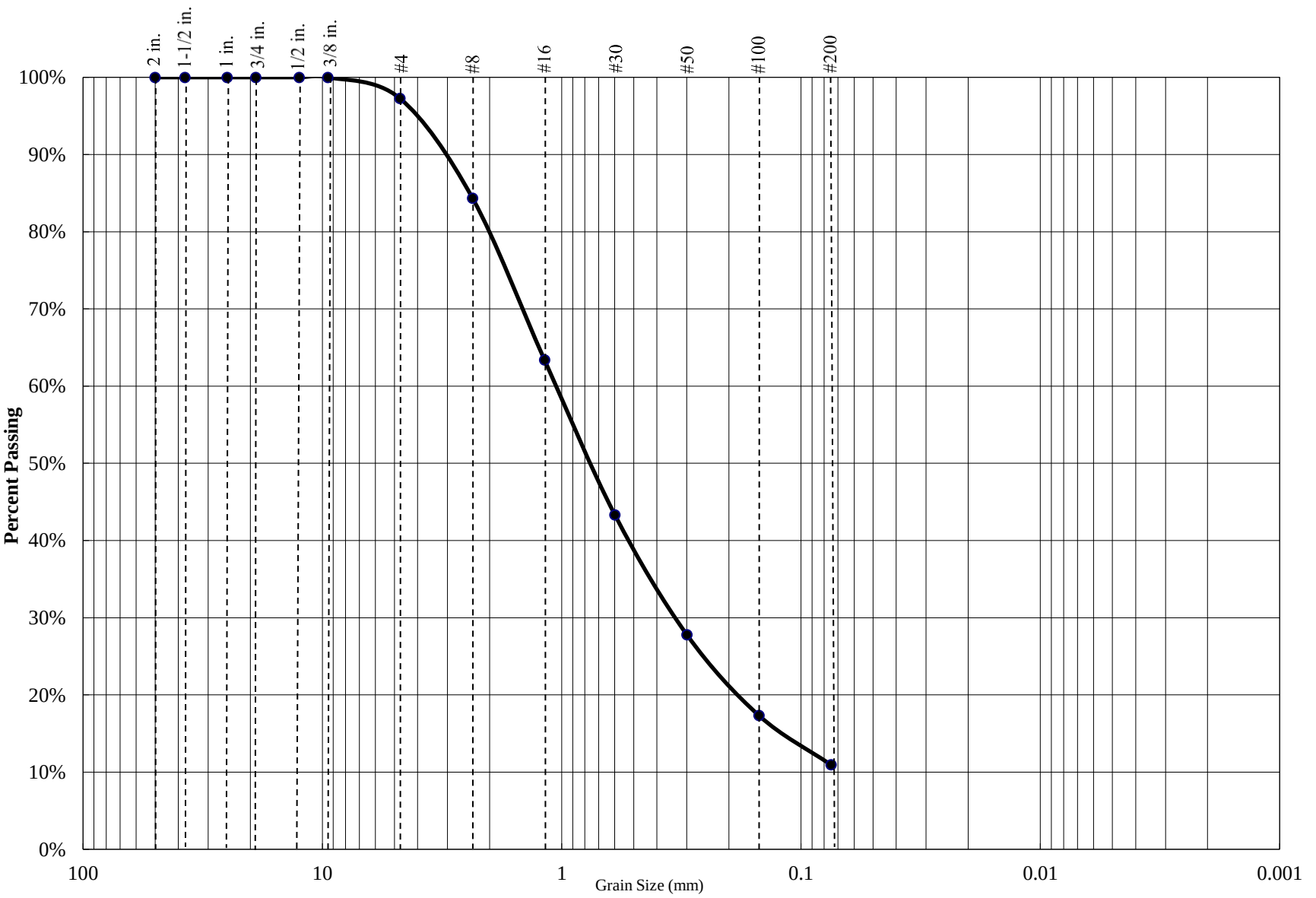
Project Number: 3-223-1034

Boring: B-7 @ 0'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	86%	11%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	97.3%
#8	84.4%
#16	63.4%
#30	43.3%
#50	27.8%
#100	17.3%
#200	10.9%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Poorly Graded Sand with Silt (SP-SM)

Project Name: 4.99MW Solar & BESS - Lancaster

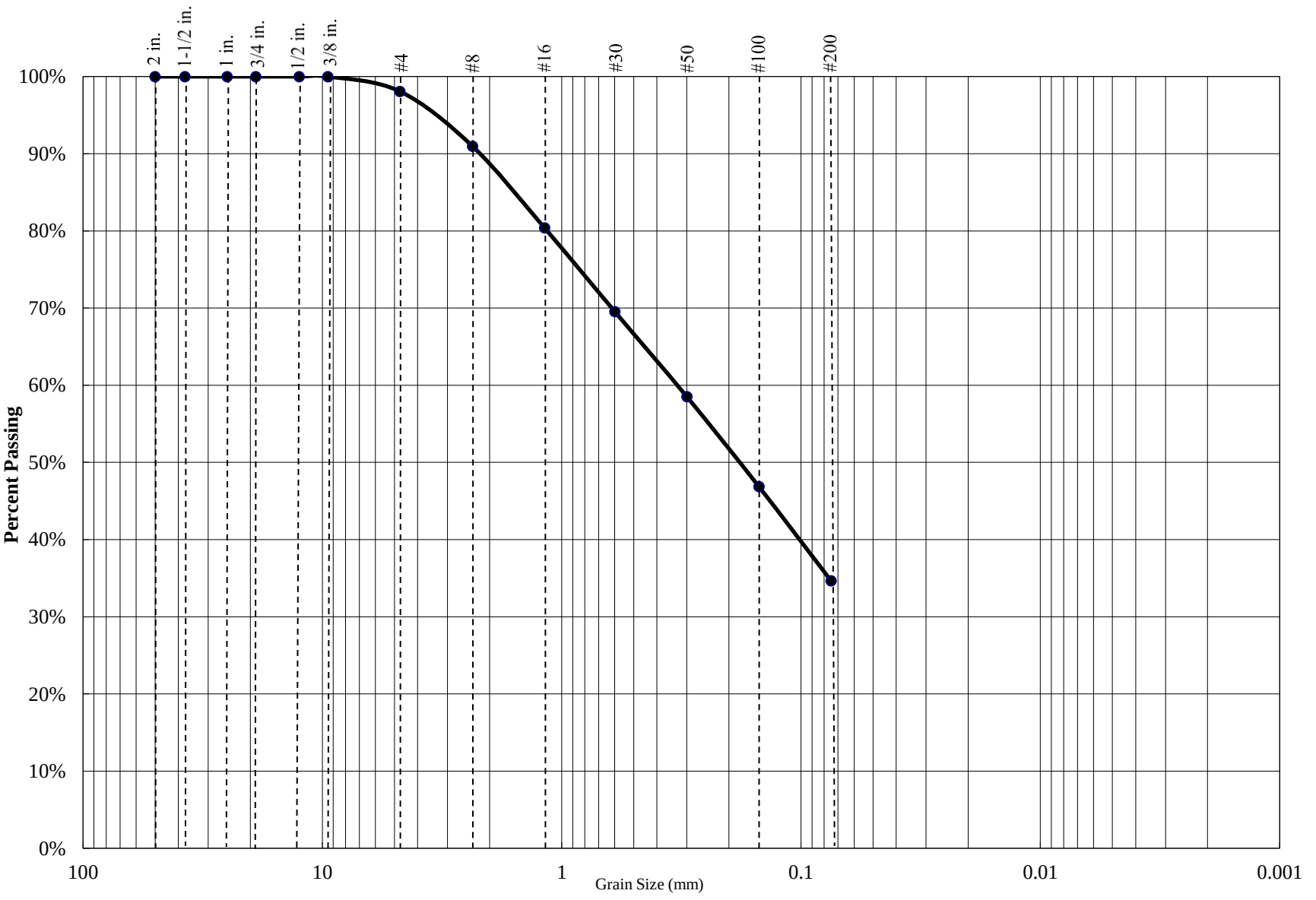
Project Number: 3-223-1034

Boring: B-7 @ 8.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	63%	35%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	98.1%
#8	91.0%
#16	80.4%
#30	69.5%
#50	58.5%
#100	46.9%
#200	34.7%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

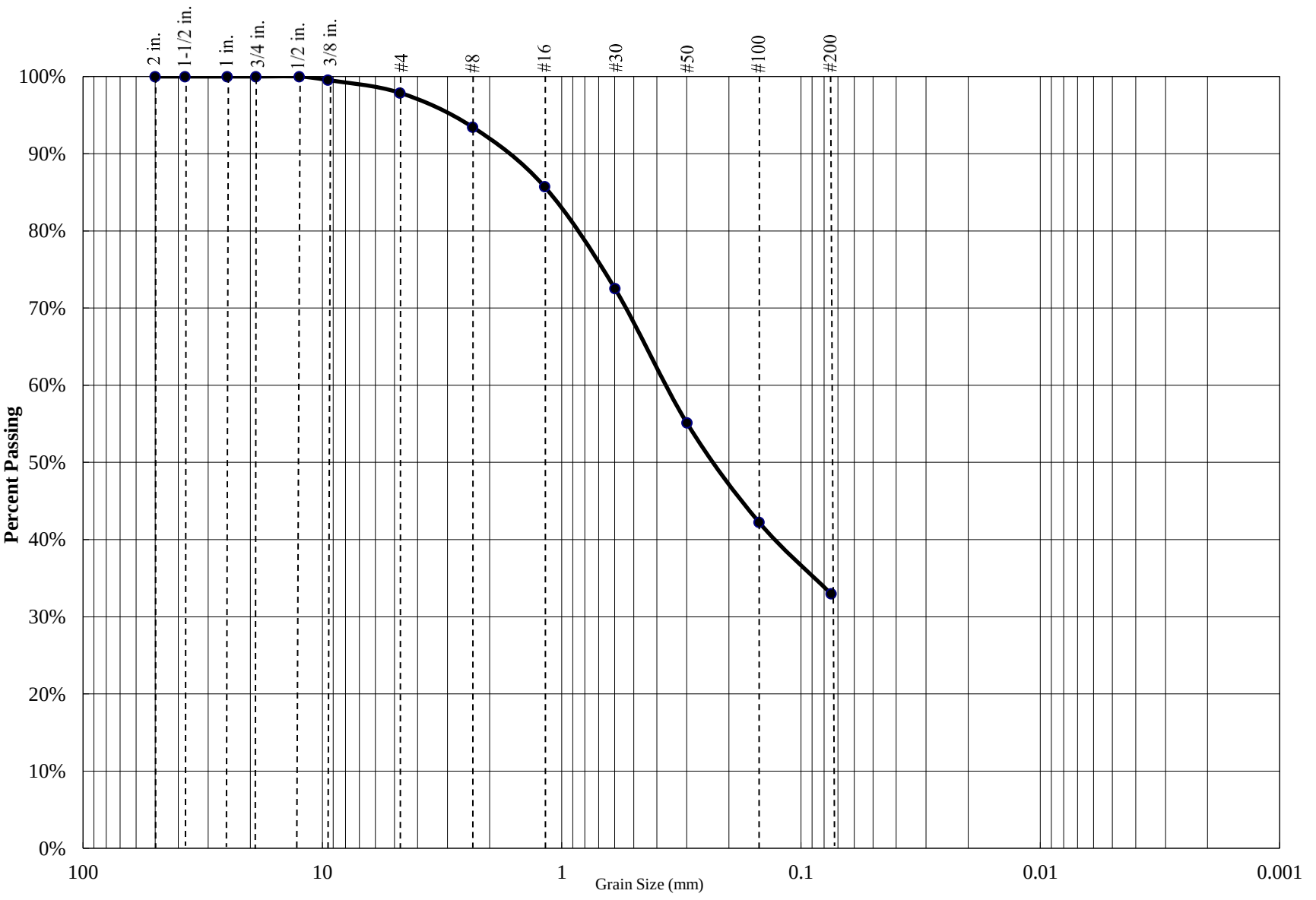
Project Number: 3-223-1034

Boring: B-8 @ 1.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	65%	33%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	99.5%
#4	97.9%
#8	93.5%
#16	85.7%
#30	72.6%
#50	55.1%
#100	42.3%
#200	33.0%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

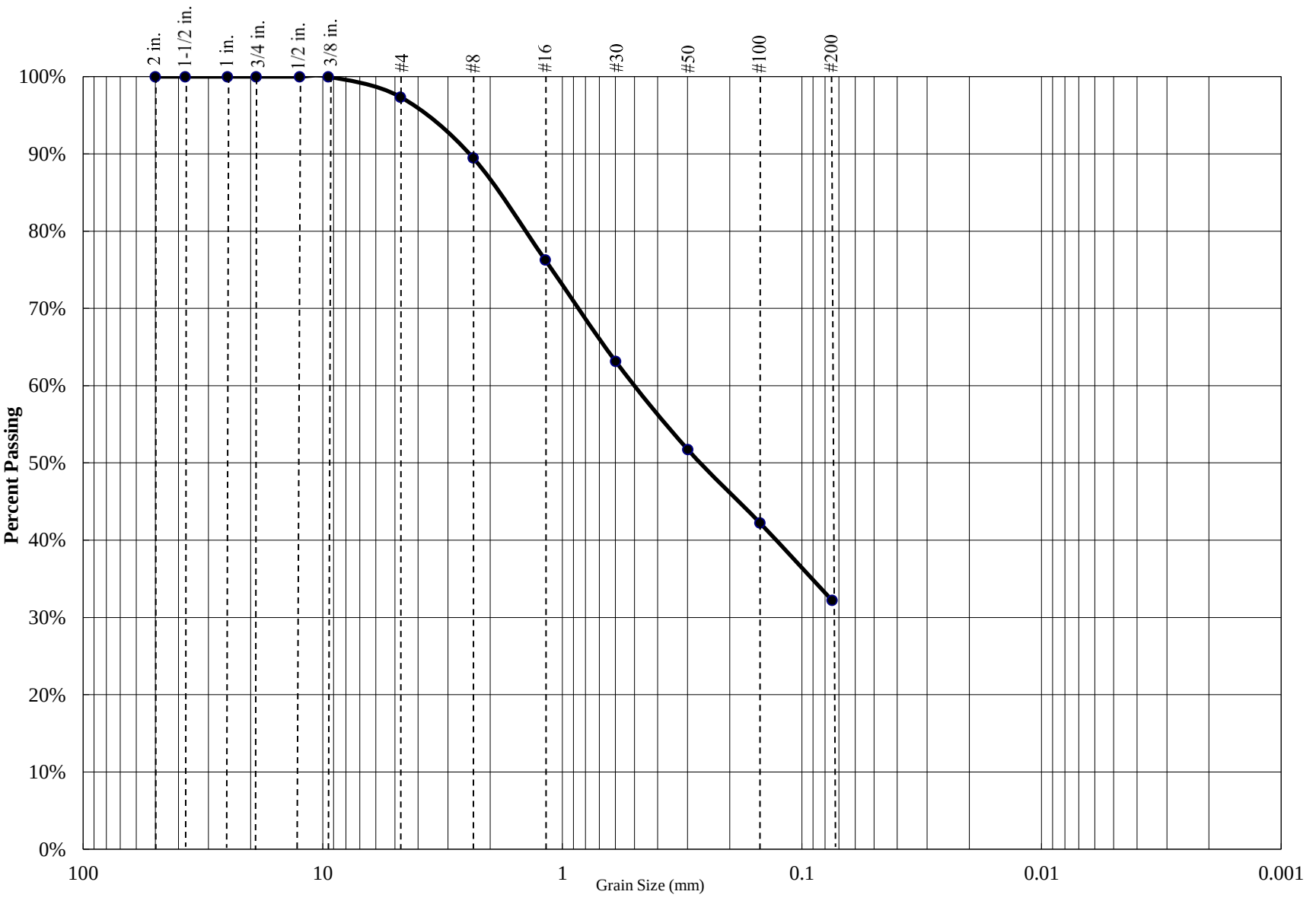
Project Number: 3-223-1034

Boring: B-8 @ 10'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
3%	65%	32%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	97.4%
#8	89.5%
#16	76.3%
#30	63.2%
#50	51.7%
#100	42.3%
#200	32.2%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

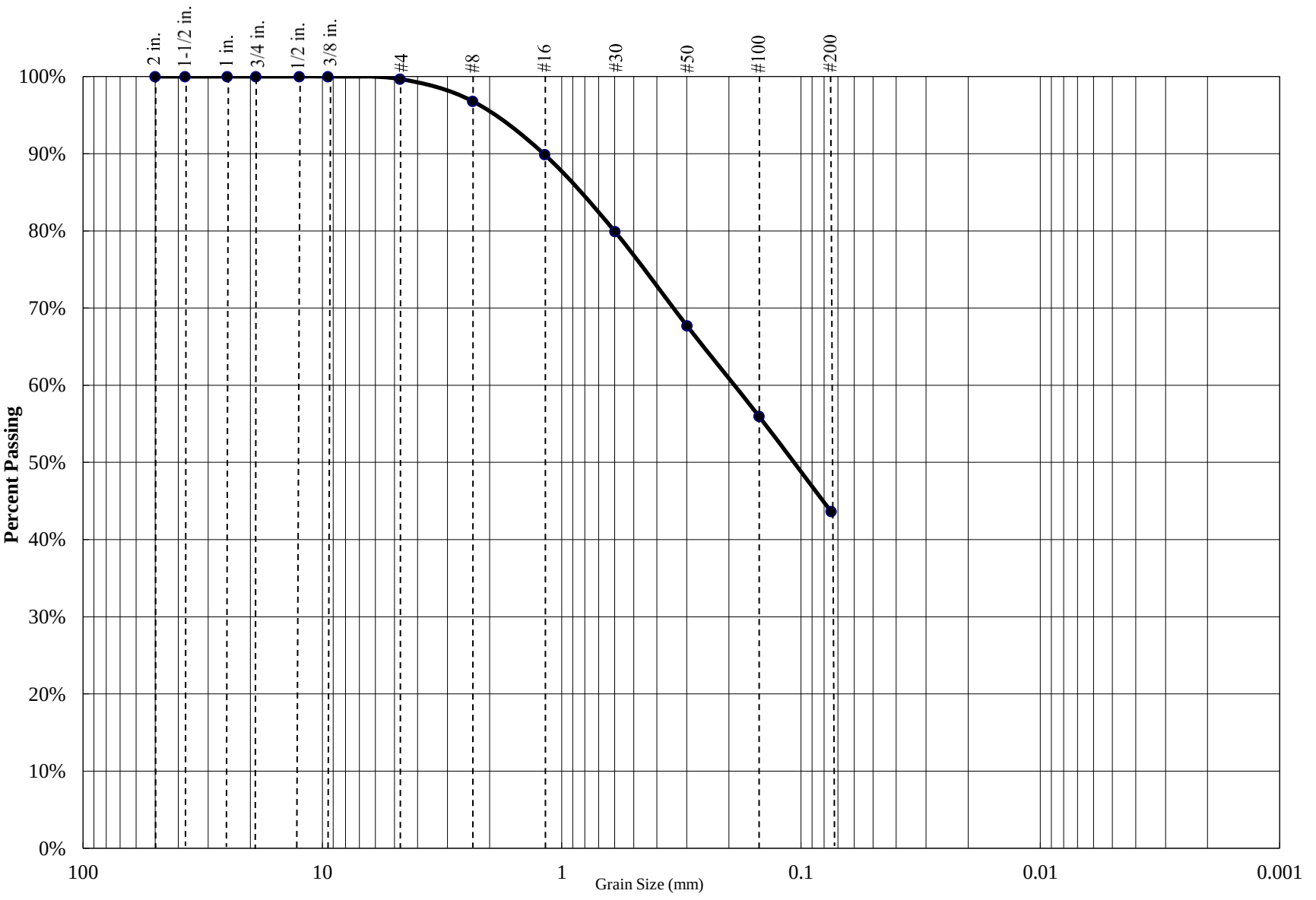
Project Number: 3-223-1034

Boring: B-11 @ 0'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	56%	44%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	99.7%
#8	96.8%
#16	89.9%
#30	79.9%
#50	67.7%
#100	56.0%
#200	43.7%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

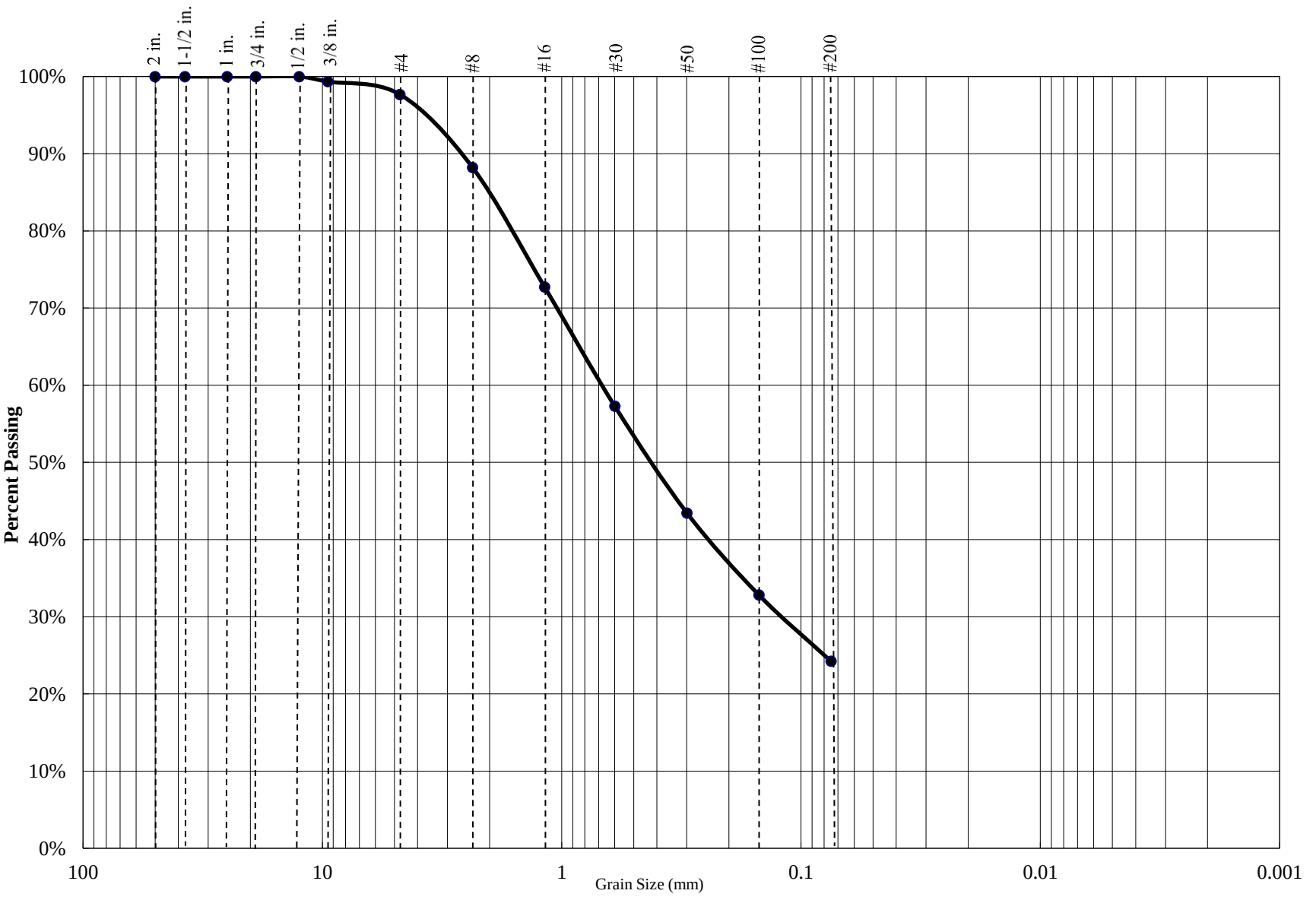
Project Number: 3-223-1034

Boring: B-11 @ 8.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
2%	74%	24%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	99.3%
#4	97.7%
#8	88.2%
#16	72.8%
#30	57.3%
#50	43.5%
#100	32.8%
#200	24.2%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

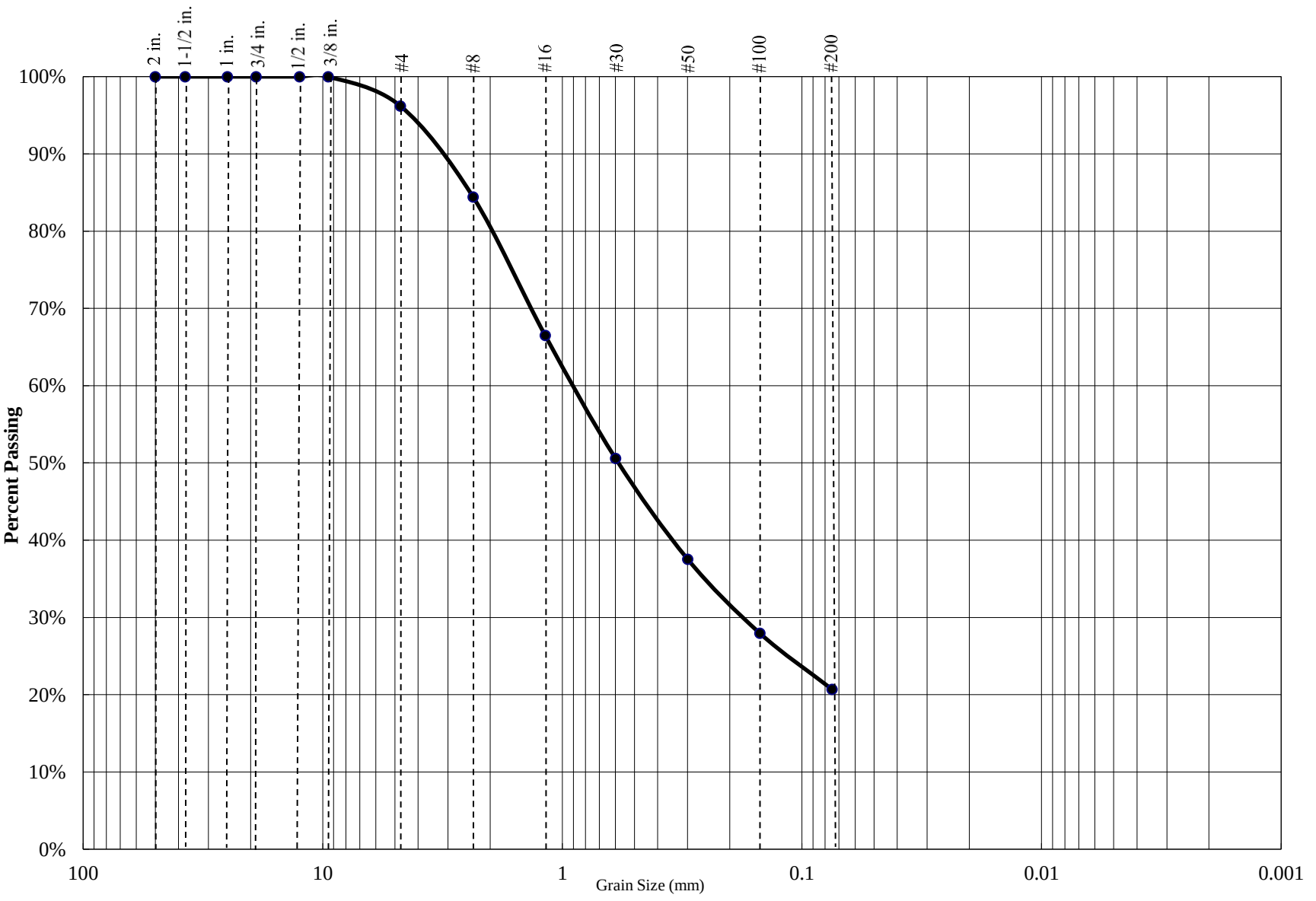
Project Number: 3-223-1034

Boring: B-13 @ 0'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
4%	75%	21%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	96.2%
#8	84.4%
#16	66.5%
#30	50.6%
#50	37.5%
#100	28.0%
#200	20.7%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

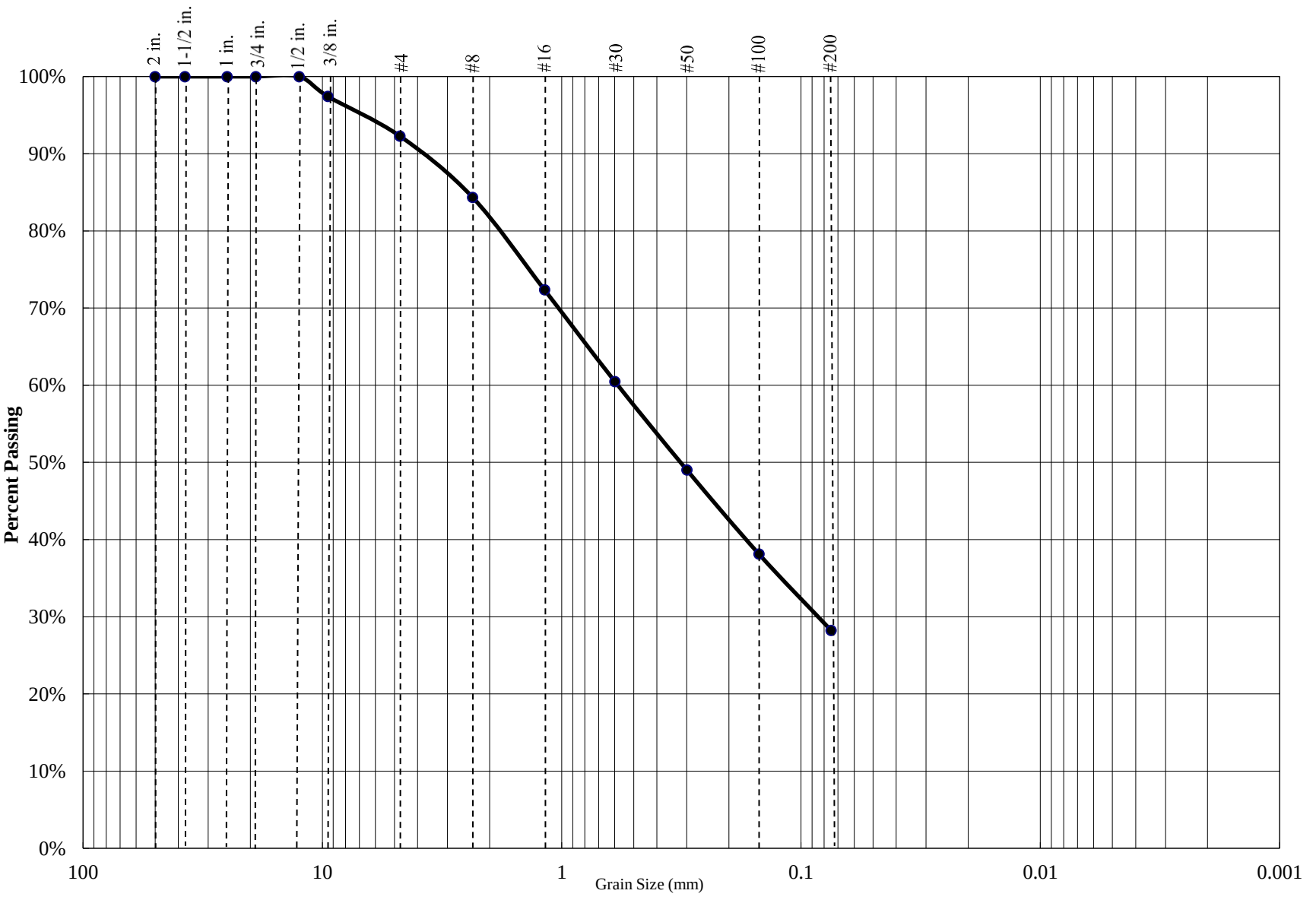
Project Number: 3-223-1034

Boring: B-13 @ 8.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
8%	64%	28%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	97.4%
#4	92.3%
#8	84.4%
#16	72.4%
#30	60.5%
#50	49.0%
#100	38.1%
#200	28.3%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty Sand (SM)

Project Name: 4.99MW Solar & BESS - Lancaster

Project Number: 3-223-1034

Boring: B-15 @ 3.5'

SALEM engineering group, inc.

Atterberg Limits Determination
ASTM D4318

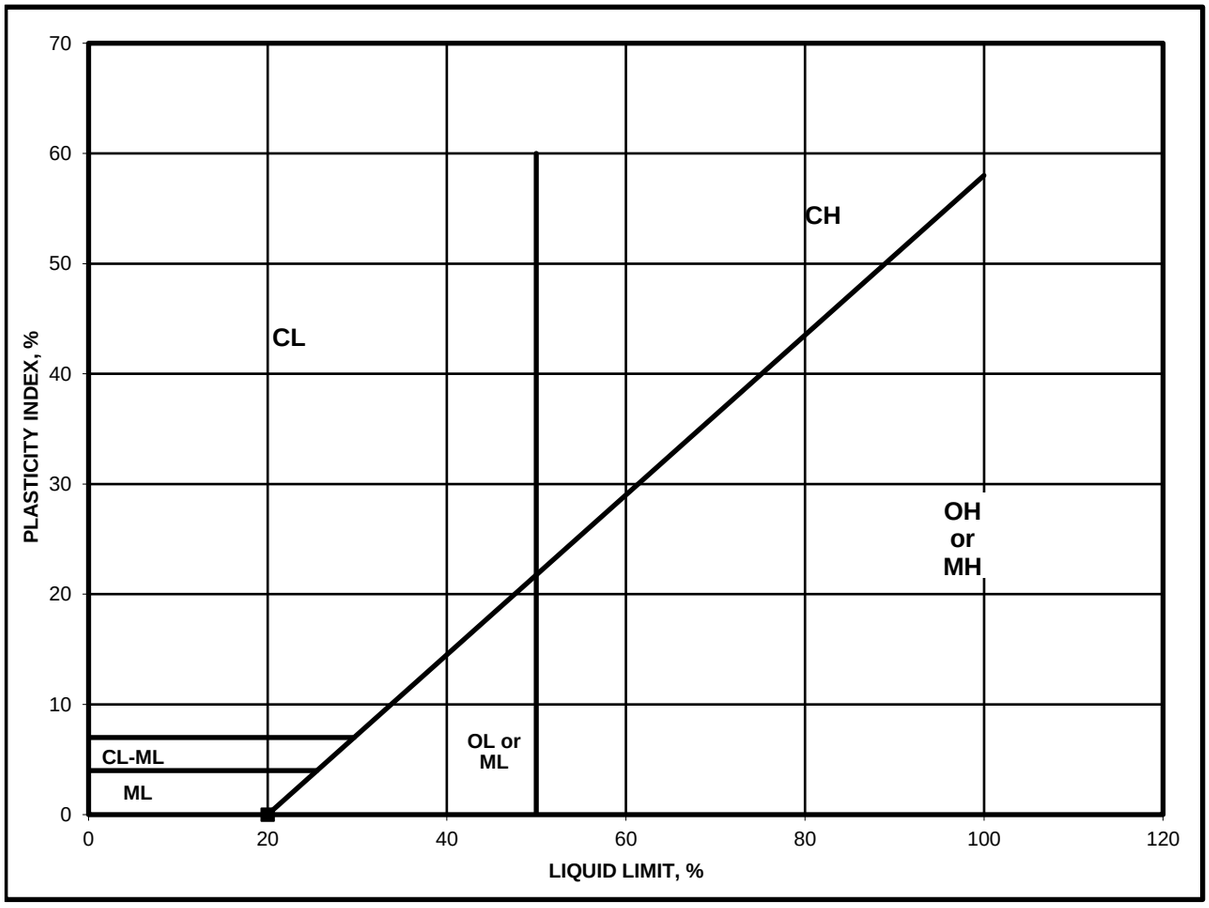
Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/25/23
Sampled By: SEG Tested By: MC
Sample Location: B-7 @ 0'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	21.95	21.08	21.31	30.42	30.57	29.74
Weight of Dry Soil & Tare	20.87	20.15	20.32	28.92	29.01	28.31
Weight of Water	1.08	0.93	0.99	1.50	1.56	1.43
Weight of Tare	15.56	15.51	15.48	21.48	21.45	21.48
Weight of Dry Soil	5.31	4.64	4.84	7.44	7.56	6.83
Water Content	20.3	20.0	20.5	20.2	20.6	20.9
Number of Blows				26	21	17

Plastic Limit : 20 **Liquid Limit : 20**

Plasticity Index : 0

Unified Soil Classification : ML



SALEM engineering group, inc.

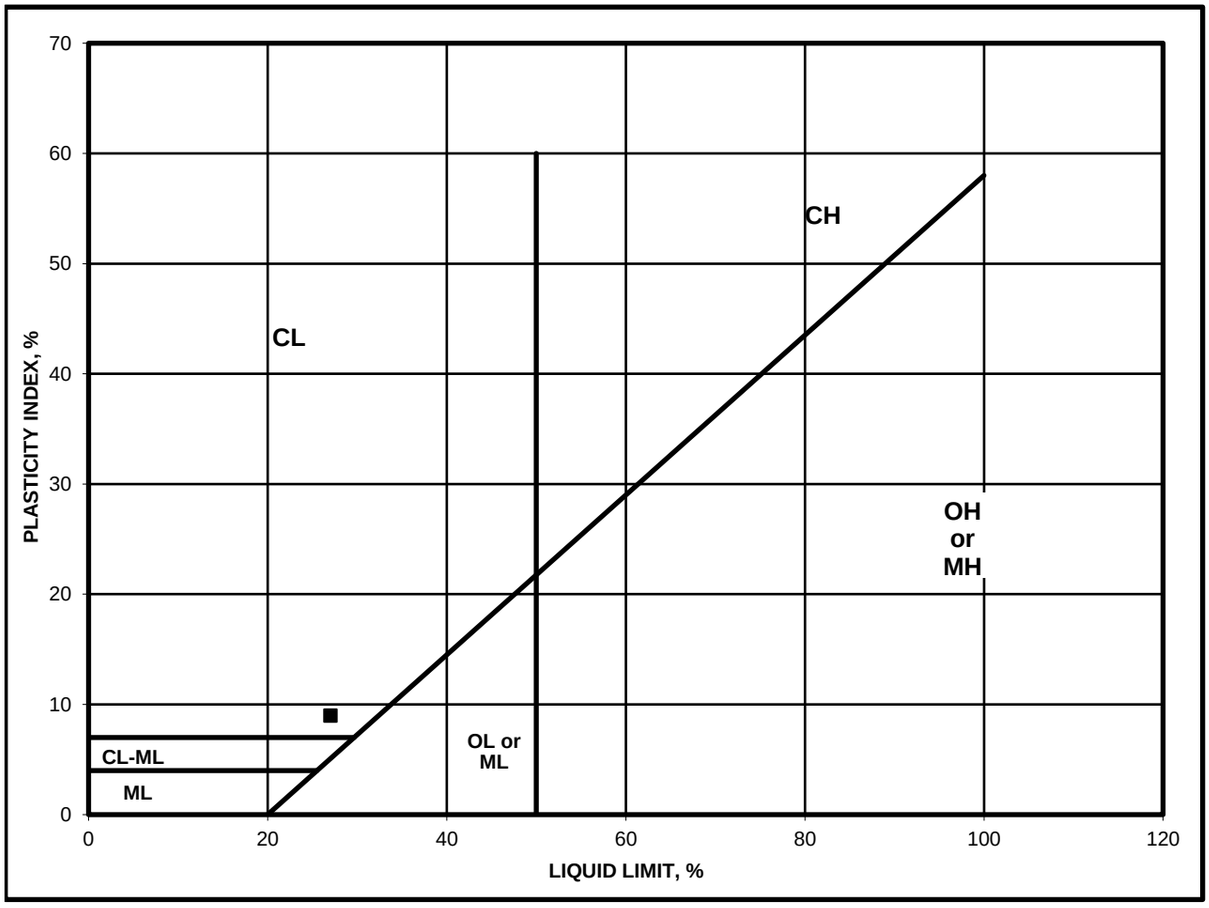
Atterberg Limits Determination
ASTM D4318

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/25/23
Sampled By: SEG Tested By: MC
Sample Location: B-11 @ 8.5'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	28.71	23.35	23.44	30.83	25.59	31.62
Weight of Dry Soil & Tare	27.51	22.19	22.27	28.74	23.48	29.40
Weight of Water	1.20	1.16	1.17	2.09	2.11	2.22
Weight of Tare	20.67	15.71	15.64	20.78	15.67	21.36
Weight of Dry Soil	6.84	6.48	6.63	7.96	7.81	8.04
Water Content	17.5	17.9	17.6	26.3	27.0	27.6
Number of Blows				31	27	23

Plastic Limit : 18 **Liquid Limit : 27**

Plasticity Index : 9
Unified Soil Classification : CL



SALEM engineering group, inc.

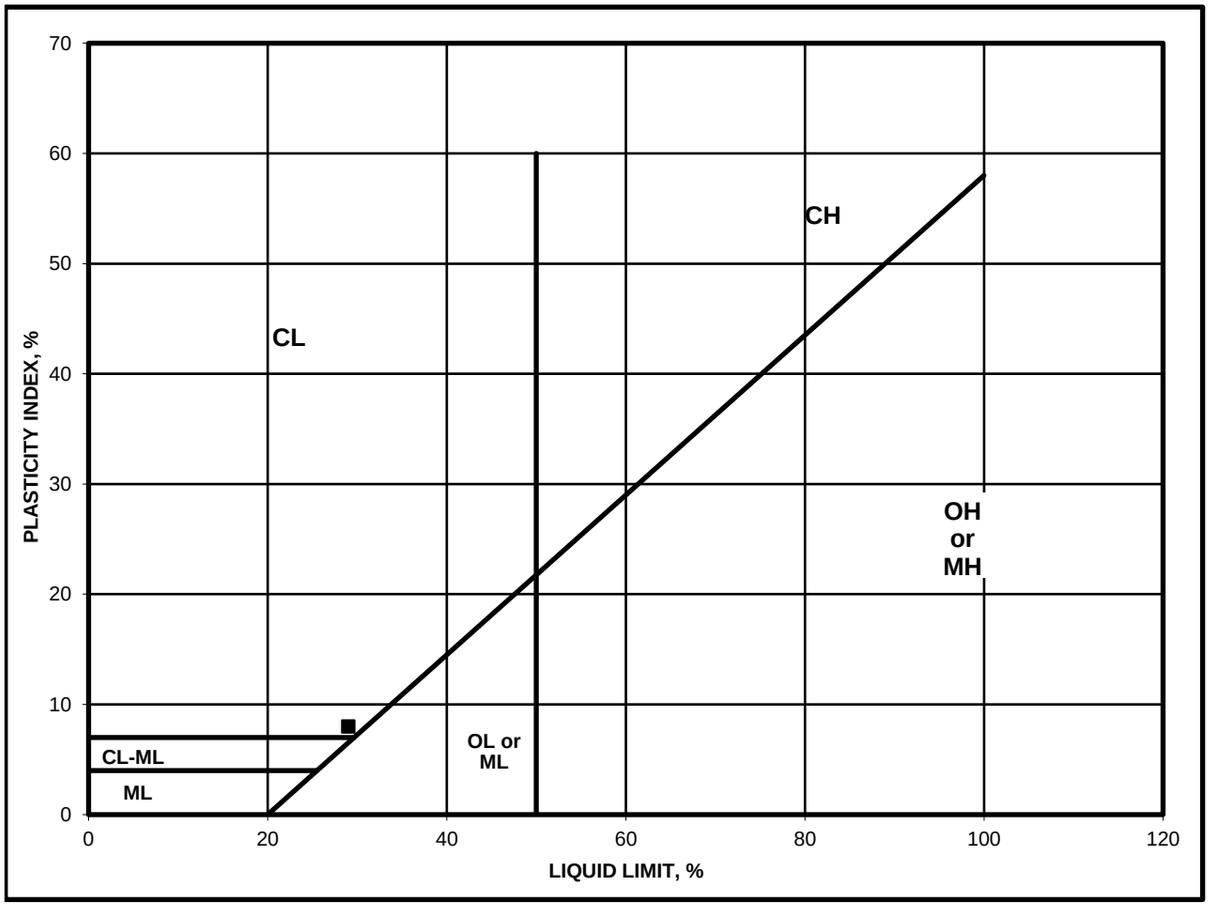
Atterberg Limits Determination
ASTM D4318

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/25/23
Sampled By: SEG Tested By: MC
Sample Location: B-15 @ 3.5'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	24.03	23.48	29.52	32.87	26.89	30.98
Weight of Dry Soil & Tare	22.57	22.12	28.04	30.28	24.37	28.65
Weight of Water	1.46	1.36	1.48	2.59	2.52	2.33
Weight of Tare	15.60	15.62	21.03	21.05	15.61	20.78
Weight of Dry Soil	6.97	6.50	7.01	9.23	8.76	7.87
Water Content	20.9	20.9	21.1	28.1	28.8	29.6
Number of Blows				29	22	17

Plastic Limit : 21 **Liquid Limit : 29**

Plasticity Index : 8
Unified Soil Classification : CL



SALEM
engineering group, inc.

EXPANSION INDEX TEST
ASTM D4829

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/24/23
Sampled By: SEG Tested By: MC
Sample Location: B-1 @ 0 - 4'
Soil Description: Silty Sand (SM)

Trial #	1	2	3
Weight of Soil & Mold, g.	605.4		
Weight of Mold, g.	187.8		
Weight of Soil, g.	417.6		
Wet Density, pcf	125.9		
Weight of Moisture Sample (Wet), g.	837.0		
Weight of Moisture Sample (Dry), g.	772.1		
Moisture Content, %	8.4		
Dry Density, pcf	116.2		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	50.4		

Time	Inital	30 min	1 hr	6 hrs	12 hrs	24 hrs
Dial Reading	0	-0.0057	-0.0058	--	--	-0.0061

Expansion Index $_{measured}$ = 0
Expansion Index $_{50}$ = 0.0

Expansion Index = **0**

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

SALEM engineering group, inc.

CHEMICAL ANALYSIS

SO_4 - Modified CTM 417 & Cl - Modified CTM 417/422

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/26/23
Sampled By: SEG Tested By: MC
Soil Description: Silty Sand (SM)

Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-1 @ 0 - 4'	< 50 mg/kg	53 mg/kg	6.9
1b.	B-1 @ 0 - 4'	< 50 mg/kg	53 mg/kg	6.9
1c.	B-1 @ 0 - 4'	< 50 mg/kg	53 mg/kg	6.9
Average:		**< 50 mg/kg**	**53 mg/kg**	**6.9**

SALEM
engineering group, inc.

CHEMICAL ANALYSIS

SO_4 - Modified CTM 417 & Cl - Modified CTM 417/422

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/26/23
Sampled By: SEG Tested By: MC
Soil Description: Silty Sand (SM)

Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-7 @ 0 - 4'	150 mg/kg	111 mg/kg	6.9
1b.	B-7 @ 0 - 4'	140 mg/kg	112 mg/kg	6.9
1c.	B-7 @ 0 - 4'	160 mg/kg	112 mg/kg	6.9
Average:		**150 mg/kg**	**112 mg/kg**	**6.9**

SALEM
engineering group, inc.

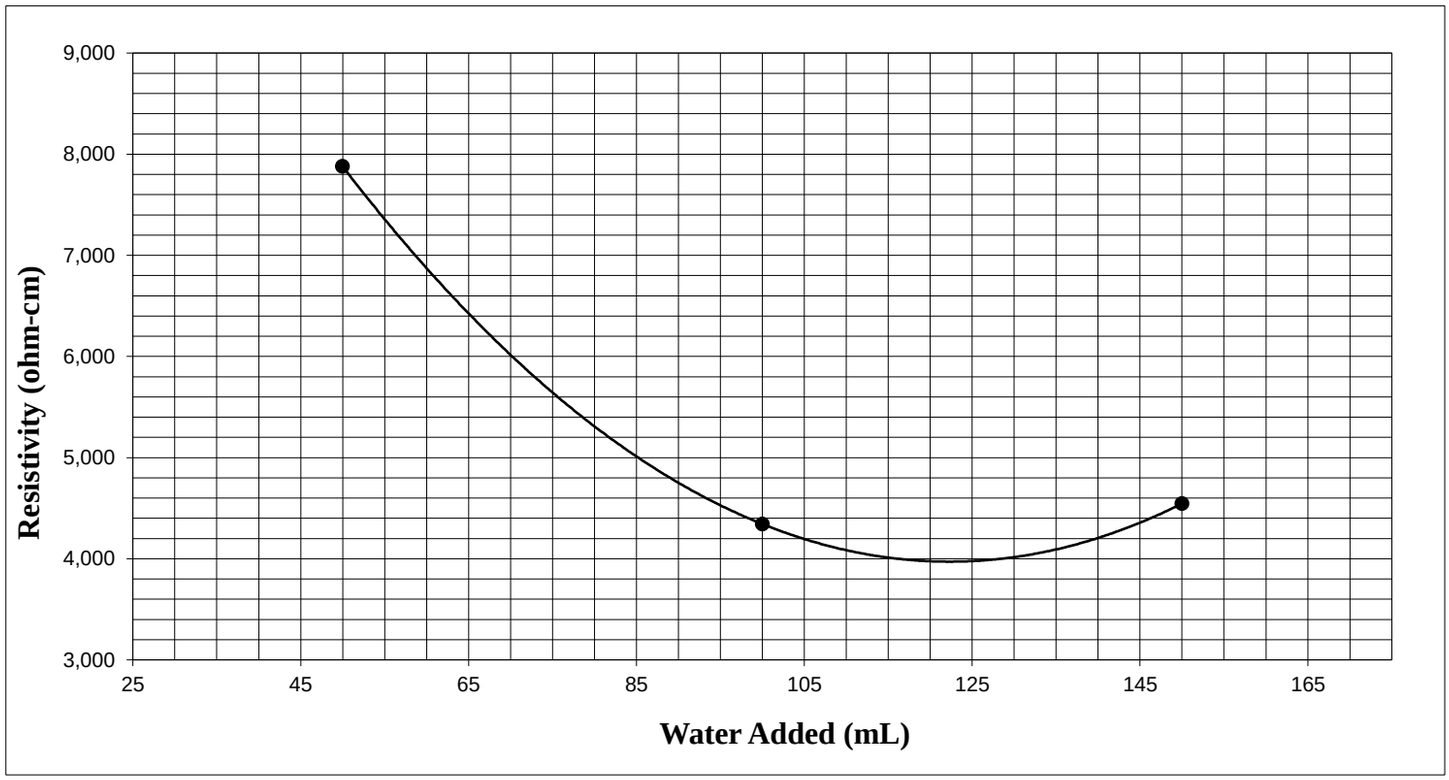
SOIL RESISTIVITY
CTM 643

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034 Date Sampled: 10/18/23
Sample Location: B-1 @ 0 - 4' Sampled By: SEG
Soil Description: Silty Sand (SM) Date Tested: 10/25/23 Tested By: PR

Chloride Content:	53	mg/Kg	Initial Sample Weight:	700	gms
Sulfate Content:	< 50	mg/Kg	Test Box Constant:	1.010	cm
Soil pH:	6.9				

Test Data:

Trial #	Water Added (mL)	Meter Dial Reading	Multiplier Setting	Resistance (ohms)	Resistivity (ohm-cm)
1	50	7.8	1,000	7,800	7,878
2	100	4.3	1,000	4,300	4,343
3	150	4.5	1,000	4,500	4,545



Minimum Resistivity:	**3,971** ohm-cm

SALEM engineering group, inc.

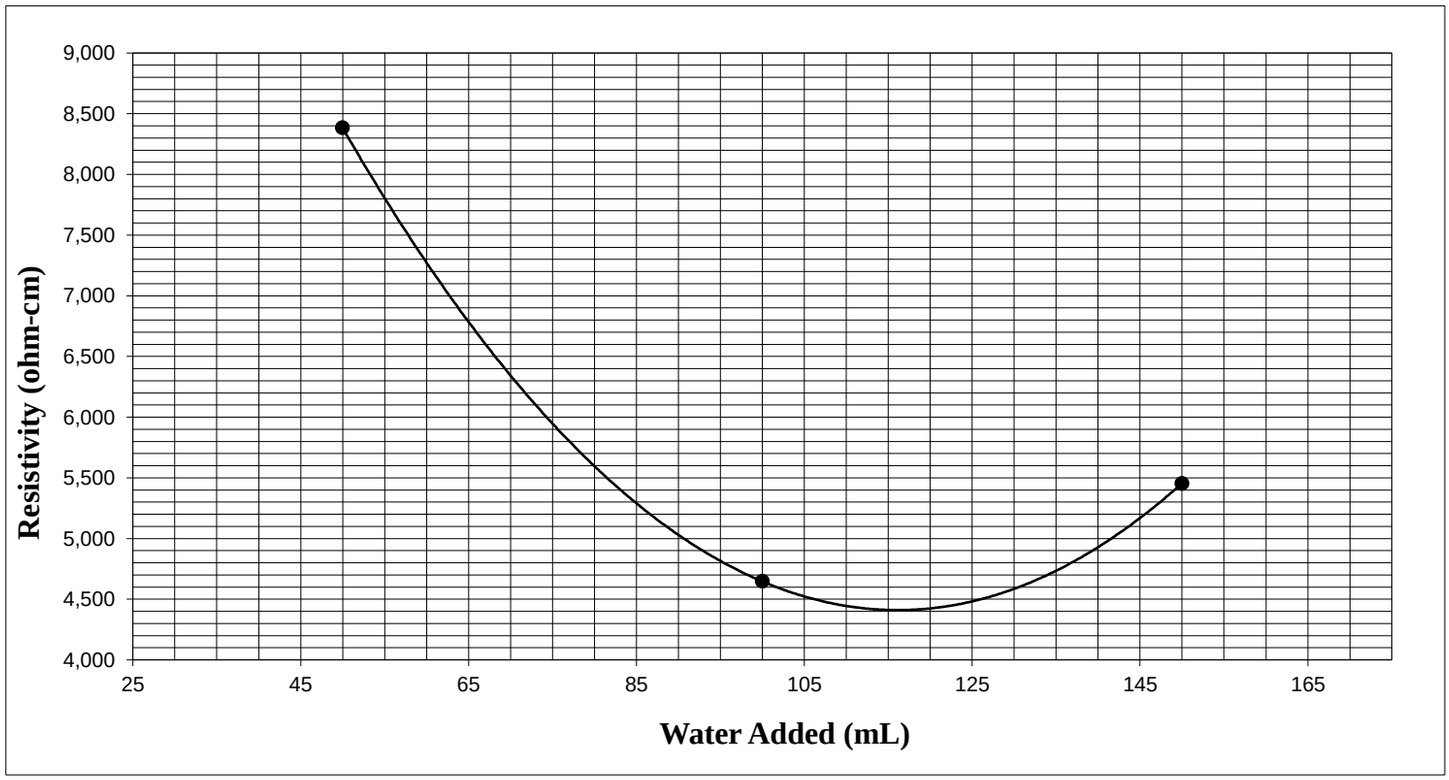
SOIL RESISTIVITY
CTM 643

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034 Date Sampled: 10/18/23
Sample Location: B-7 @ 0 - 4' Sampled By: SEG
Soil Description: Silty Sand (SM) Date Tested: 10/25/23 Tested By: PR

Chloride Content:	112	mg/Kg	Initial Sample Weight:	700	gms
Sulfate Content:	150	mg/Kg	Test Box Constant:	1.010	cm
Soil pH:	6.9				

Test Data:

Trial #	Water Added (mL)	Meter Dial Reading	Multiplier Setting	Resistance (ohms)	Resistivity (ohm-cm)
1	50	8.3	1,000	8,300	8,383
2	100	4.6	1,000	4,600	4,646
3	150	5.4	1,000	5,400	5,454

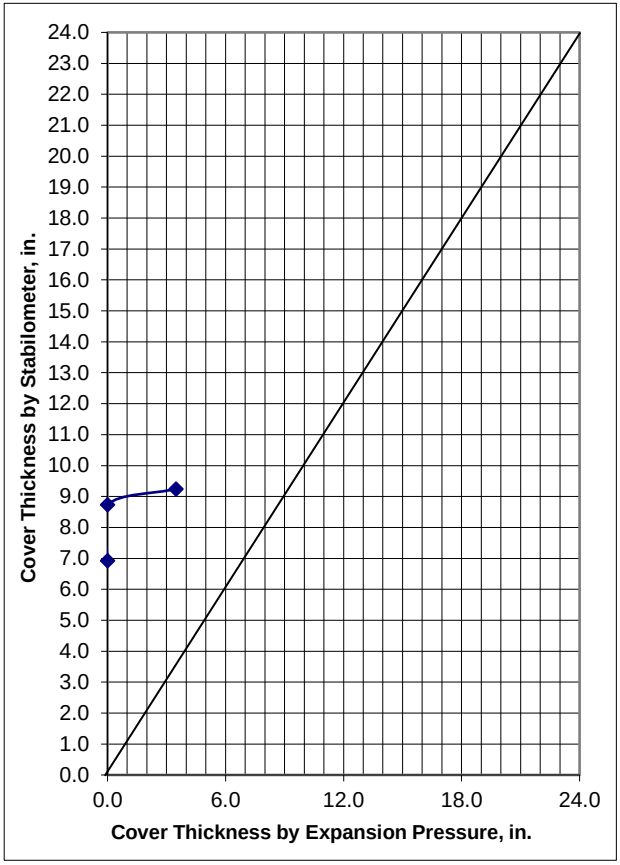


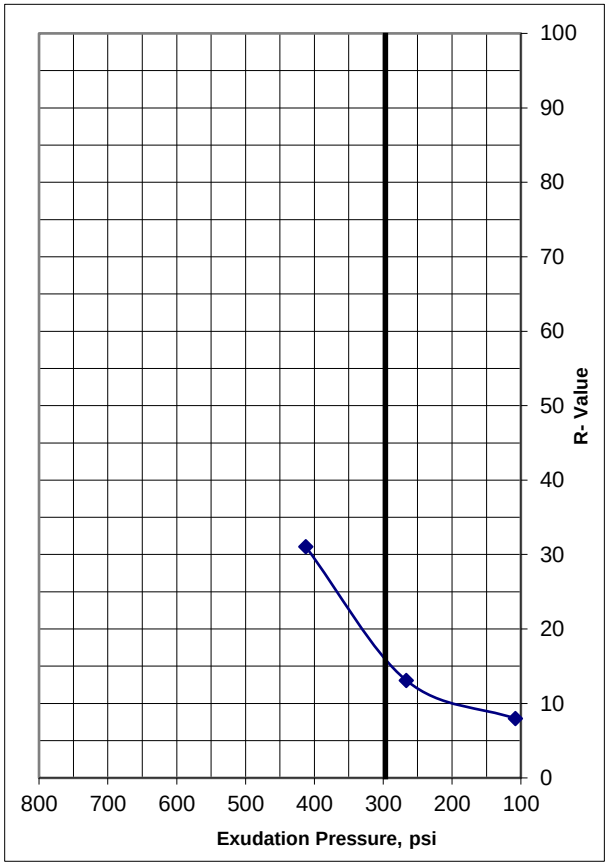
Minimum Resistivity:	**4,410** ohm-cm

SALEM engineering group, inc.

Resistance R-Value
and Expansion Pressure of Compacted Soils
ASTM D2844

Project Name: 4.99MW Solar & BESS - Lancaster
Project Number: 3-223-1034
Date Sampled: 10/18/23 Date Tested: 10/30/23
Sampled By: SEG Tested By: JT
Sample Location: B-1 @ 0 - 4'
Soil Description: Silty Sand (SM)





Specimen	1	2	3
Exudation Pressure, psi	412.4	266.3	107.8
Moisture at Test, %	7.4	8.0	9.1
Dry Density, pcf	134.0	133.1	127.3
Expansion Pressure, psf	0	0	377
Thickness by Stabilometer, in.	6.9	8.7	9.2
Thickness by Expansion Pressure, in.	0.0	0.0	3.5
R-Value by Stabilometer	31	13	8
R-Value by Expansion Pressure	N/A		
R-Value at 300 psi Exudation Pressure	16		

Controlling R-Value	**16**

SALEM engineering group, inc.

Thermal Conductivity by Thermal Probe, ASTM D5334-14

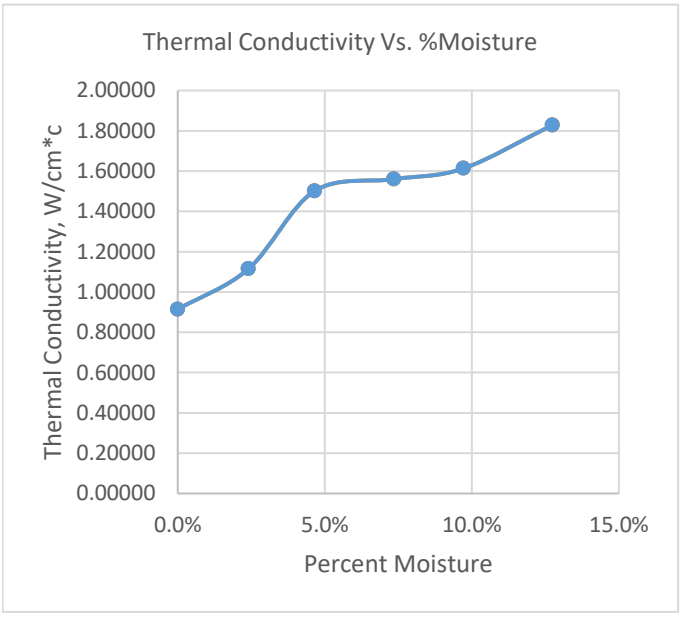
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

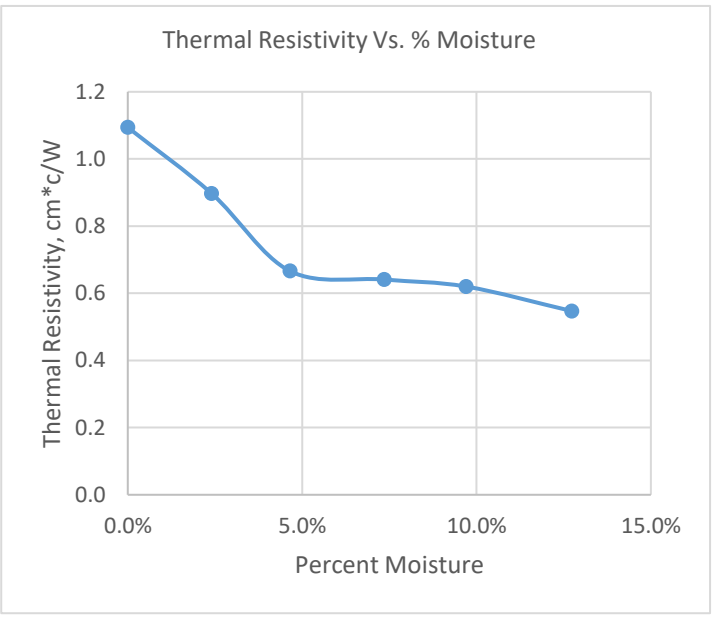
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-4
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.7

Wet Weight, gm	866.1	892.4	917.0	938.4	963.1	986.3
Dry Weight, gm	866.1	870.9	874.3	869.4	869.6	860.6
Moisture Content, %	0.0%	2.4%	4.7%	7.4%	9.7%	12.7%
Average Length, in	6.30	6.20	6.10	6.00	5.80	6.00
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	113.9	116.4	119.0	120.7	125.4	120.8
Remolded Compaction, %	85%	87%	89%	90%	94%	90%
Thermal Conductivity, W/cm*c°	0.914	1.115	1.502	1.560	1.613	1.828
Thermal Resistivity, cm*c°/W	1.094	0.897	0.666	0.641	0.620	0.547





SALEM engineering group, inc.

Thermal Conductivity by Thermal Probe, ASTM D5334-14

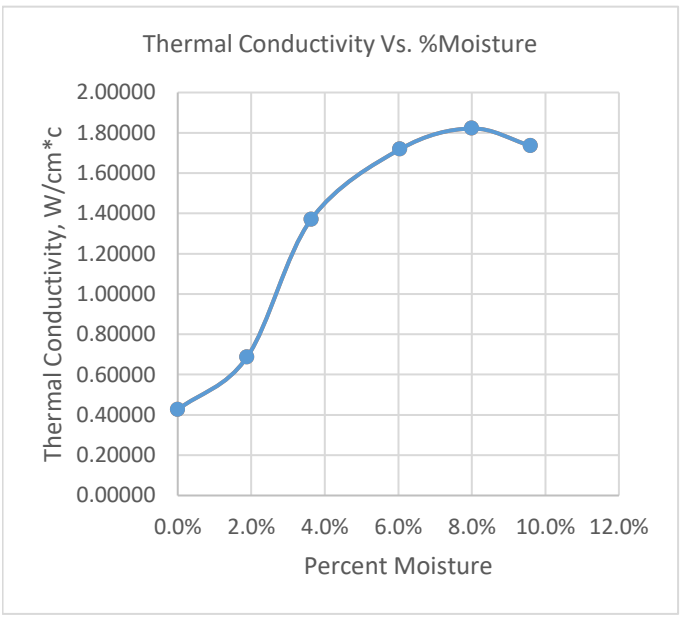
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

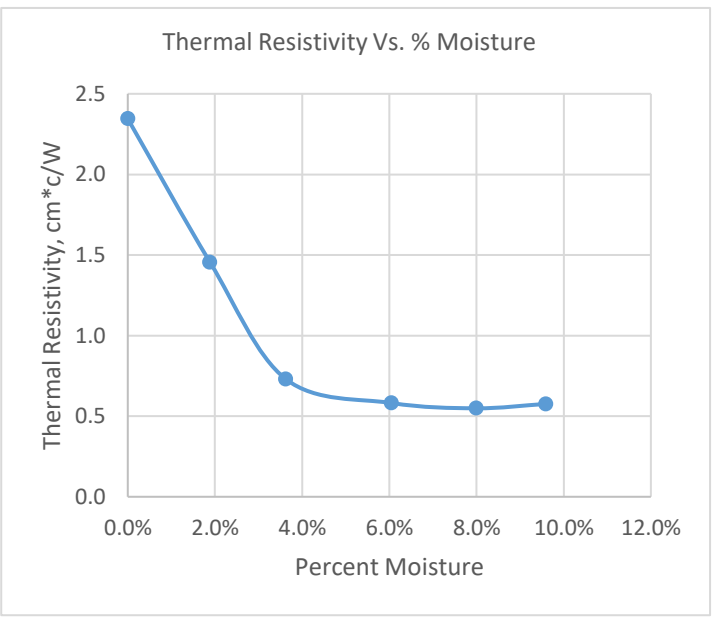
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-4
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.7

Wet Weight, gm	916.0	936.3	955.1	977.8	996.7	1015.2
Dry Weight, gm	916.0	918.7	920.5	918.7	917.1	917.9
Moisture Content, %	0.0%	1.9%	3.6%	6.0%	8.0%	9.6%
Average Length, in	6.30	6.10	6.20	6.00	6.00	6.00
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	120.4	124.8	123.1	127.3	127.4	127.9
Remolded Compaction, %	90%	93%	92%	95%	95%	96%
Thermal Conductivity, W/cm*c°	0.426	0.687	1.370	1.718	1.821	1.736
Thermal Resistivity, cm*c°/W	2.345	1.456	0.730	0.582	0.549	0.576





Thermal Conductivity by Thermal Probe, ASTM D5334-14

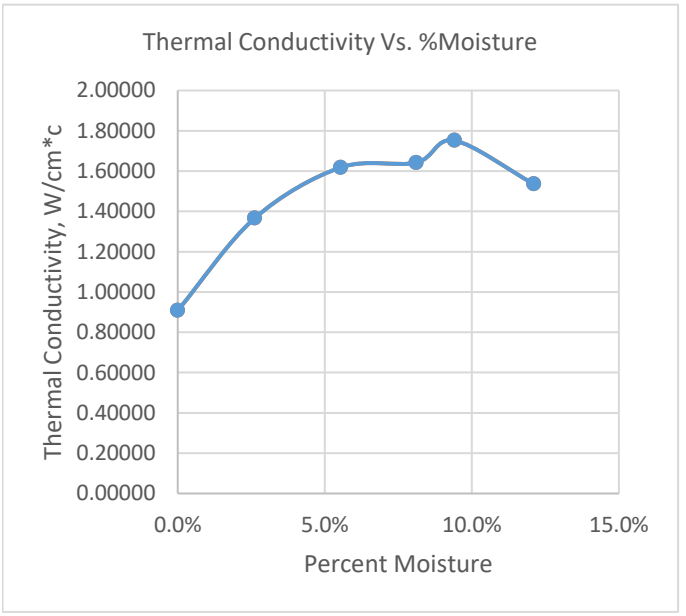
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

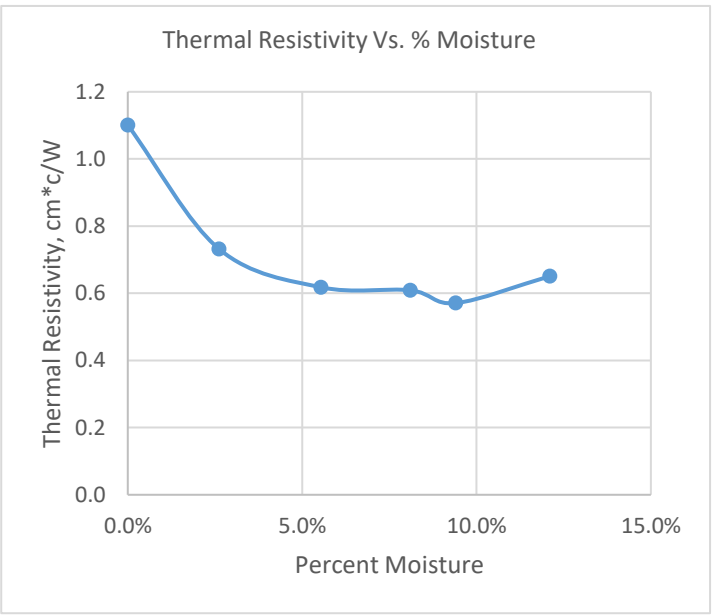
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-13
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.8

Wet Weight, gm	867.1	891.9	917.2	940.3	964.3	986.5
Dry Weight, gm	867.1	868.6	866.4	864.1	873.6	867.1
Moisture Content, %	0.0%	2.6%	5.5%	8.1%	9.4%	12.1%
Average Length, in	6.30	6.10	6.10	6.00	6.00	6.20
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	114.0	118.0	118.0	120.1	121.7	117.5
Remolded Compaction, %	85%	88%	88%	90%	91%	88%
Thermal Conductivity, W/cm*c°	0.908	1.366	1.618	1.642	1.751	1.536
Thermal Resistivity, cm*c°/W	1.101	0.732	0.618	0.609	0.571	0.651





Thermal Conductivity by Thermal Probe, ASTM D5334-14

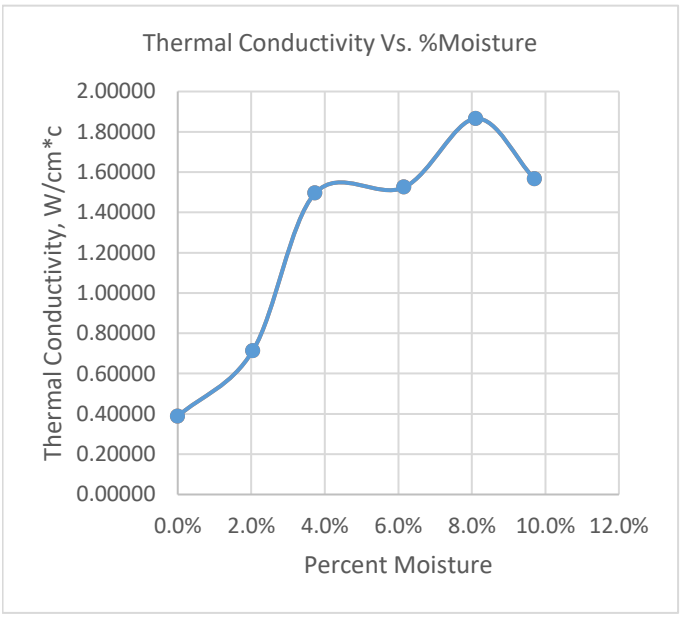
Project Name 4.99MW Solar & BESS - Lancaster
Project Number 3-223-1034

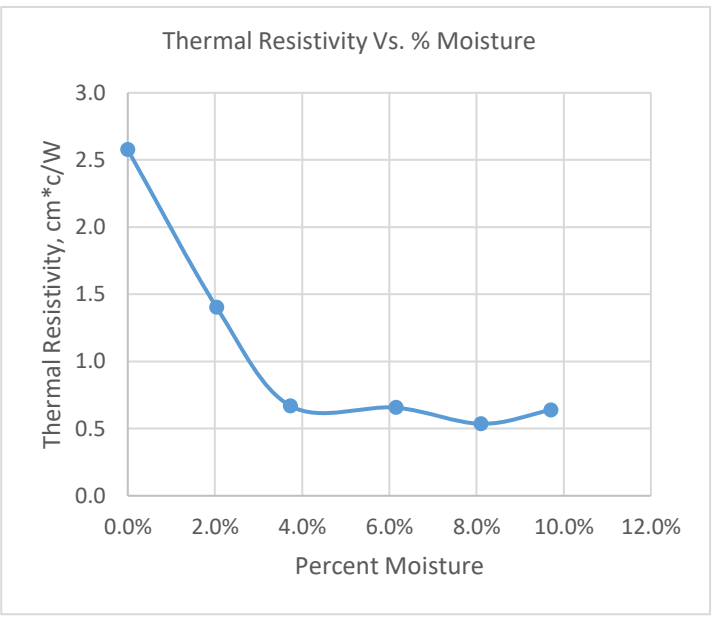
Report Date 10/27/2023
Test Date 10/27/2023

Test Boring B-13
Depth 1-4' Feet BSG

Maximum Dry Density, pcf 133.8

Wet Weight, gm	916.1	936.1	960.1	976.8	995.6	1016.9
Dry Weight, gm	916.1	917.0	924.2	916.7	914.9	918.2
Moisture Content, %	0.0%	2.0%	3.7%	6.2%	8.1%	9.7%
Average Length, in	6.30	6.00	6.10	6.10	6.00	6.10
Average Diameter, in	2.42	2.42	2.42	2.42	2.42	2.42
Dry Density, pcf	120.4	126.6	125.7	124.9	127.1	125.9
Remolded Compaction, %	90%	95%	94%	93%	95%	94%
Thermal Conductivity, W/cm*c°	0.388	0.713	1.495	1.524	1.866	1.565
Thermal Resistivity, cm*c°/W	2.576	1.402	0.669	0.656	0.536	0.639





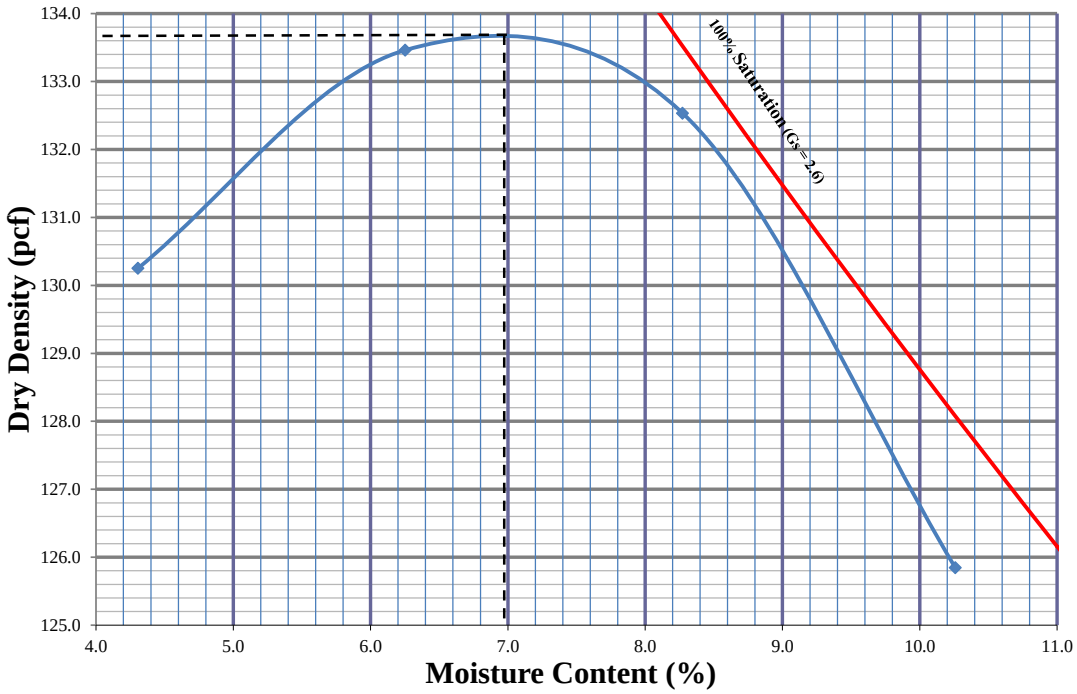
SALEM
engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Office: (559) 271-9700
Fax: (559) 275-0827

Laboratory Compaction Curve

(ASTM D1557, Method A)

Report to:	N/A	Date Sampled:	10/18/2023
Project Name:	Solar & Bess Lancaster	Date Tested:	10/25/2023
Sample Location:	S-1: B-4	Project No.:	3-223-1034
Soil Description:	Brown - Cohesive - Clayey Sand	Depth:	0' - 4'
Soil Described By:	ASTM D2488	Specific Gravity:	2.6
Percent Retained on 3/4":	0.0%	Sampled By:	N/A
Percent Retained on 3/8":	0.0%	Tested By:	A. Vega
Percent Retained on No. 4:	0.0%	Sample I.D.	1435-23
Percent Coarse Aggregate:	0.0%	Preparation Method:	☑ Moist ☐ Dry
As-Received Moisture:	2.3%	Type of Rammer Used:	☐ Manual ☑ Mechanical



Test Results	
Maximum Dry Density (pcf):	**133.7**
Optimum Moisture Content (%):	**7.0**

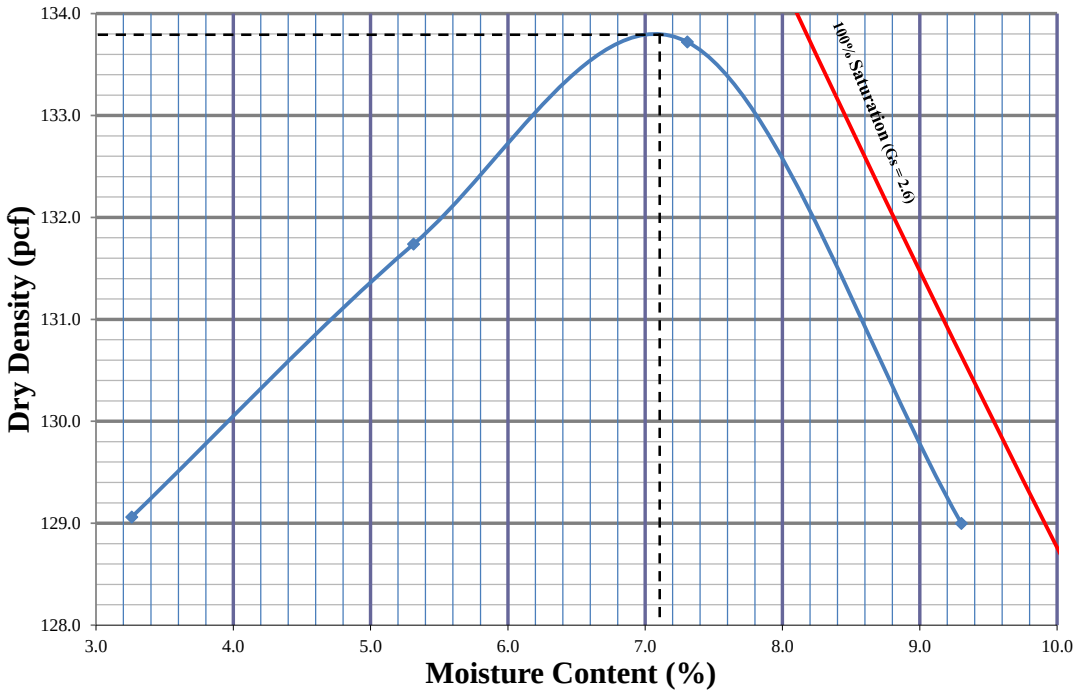
SALEM
engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Office: (559) 271-9700
Fax: (559) 275-0827

Laboratory Compaction Curve

(ASTM D1557, Method A)

Report to:	N/A	Date Sampled:	10/18/2023
Project Name:	Solar & Bess Lancaster	Date Tested:	10/25/2023
Sample Location:	S-2: B-13	Project No.:	3-223-1034
Soil Description:	Brown - Cohesive - Clayey Sand	Depth:	0' - 4'
Soil Described By:	ASTM D2488	Specific Gravity:	2.6
Percent Retained on 3/4":	0.0%	Sampled By:	N/A
Percent Retained on 3/8":	0.0%	Tested By:	A. Vega
Percent Retained on No. 4:	0.0%	Sample I.D.	1436-23
Percent Coarse Aggregate:	0.0%	Preparation Method:	☑ Moist ☐ Dry
As-Received Moisture:	3.3%	Type of Rammer Used:	☐ Manual ☑ Mechanical



Test Results	
Maximum Dry Density (pcf):	**133.8**
Optimum Moisture Content (%):	**7.1**

APPENDIX

C

APPENDIX C
GENERAL EARTHWORK AND PAVEMENT SPECIFICATIONS

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

1.0 SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including, but not limited to, the furnishing of all labor, tools and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans and disposal of excess materials.

2.0 PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of SALEM Engineering Group, Incorporated, hereinafter referred to as the Soils Engineer and/or Testing Agency. Attainment of design grades, when achieved, shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary adjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer, or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

3.0 TECHNICAL REQUIREMENTS: All compacted materials shall be densified to no less that 95 percent of relative compaction (90 percent for cohesive soils) based on ASTM D1557 Test Method (latest edition), UBC or CAL-216, or as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

4.0 SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the Geotechnical Engineering Report. The Contractor shall make his own interpretation of the data contained in the Geotechnical Engineering Report and the Contractor shall not be relieved of liability for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

5.0 DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or wind-blown materials attributable to his work. Site preparation shall consist of site clearing and grubbing and preparation of foundation materials for receiving fill.

6.0 CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed improvement areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots greater than 1 inch in diameter. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations is not permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

7.0 SUBGRADE PREPARATION: Surfaces to receive Engineered Fill and/or building or slab loads shall be prepared as outlined above, scarified to a minimum of 12 inches, moisture-conditioned as necessary, and recompacted to 95 percent relative compaction (90 percent for cohesive soils).

Loose soil areas and/or areas of disturbed soil shall be moisture-conditioned as necessary and recompacted to 95 percent relative compaction (90 percent for cohesive soils). All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any fill material.

8.0 EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

9.0 FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence or approval of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills, provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

10.0 PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. Compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer. Both cut and fill shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

11.0 SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill is as specified.

12.0 DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term “Standard Specifications”: hereinafter referred to, is the most recent edition of the Standard Specifications of the State of California, Department of Transportation. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as determined by ASTM D1557 Test Method (latest edition) or California Test Method 216 (CAL-216), as applicable.

13.0 PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 95 percent based upon ASTM D1557. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

14.0 AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class II material, ¾-inch or 1½-inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

15.0 AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class II Subbase material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent based upon CAL-216, and it shall be spread and compacted in accordance with the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

16.0 ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10, unless otherwise stipulated or local conditions warrant more stringent grade. The mineral aggregate shall be Type A or B, ½ inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39. The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in the Standard Specifications. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

Appendix G

Greenhouse Gas Emissions Technical Memorandum

Kimley»Horn

TECHNICAL MEMORANDUM

To: RPCA Solar 12, LLC

From: Olivia Chan and Mayra Garcia, Kimley-Horn and Associates, Inc.

Date: April 11, 2025

Subject: 230th Street Solar Project – Greenhouse Gas Emissions Technical Memorandum

PURPOSE

The purpose of this memorandum is to assess potential impacts due to greenhouse gas (GHG) emissions associated with construction and operation of the 230th Street Solar Project (Project), proposed to be located in unincorporated Los Angeles County, California.

PROJECT LOCATION

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W in Lancaster (see **Figure 1: Regional Vicinity Map**). The Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west (see **Figure 2: Local Vicinity Map**). Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25 miles to the south. Local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W.

PROJECT DESCRIPTION

RPCA Solar 12, LLC (Applicant) proposes to construct and operate a single-axis tracker ground-mounted photovoltaic (PV) community solar and battery energy storage system (BESS) with up to approximately 4.99 megawatts of alternating current (MWac) in capacity. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than the maximum permitted height of 25 feet for solar arrays, pursuant to Section 22.140.510.E.3.c.iii of the County's Renewable Energy Ordinance.

The BESS would store electrical energy produced by the Project during the day and flexibility dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of four battery banks with energy storage capacity located in the southwest corner of the PV array. Each battery bank would be approximately the size of a typical shipping container. The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection, and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

Site access would be provided via a new driveway constructed from 230th Street W. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The access roads would encircle the whole array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site Boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. As little as 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.

The Project proposes a 10-foot landscape buffer between the fence and the access road on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8. The Project would be enclosed in a six foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24-hour access for emergency responders.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as January 2026.[1] Project construction activities generally fall into six main categories: (1) demolition; (2) site preparation (vegetation clearing); (3) grading; (4) paving; (5) system installation; and (6) testing, commissioning, and cleanup.[2] Construction personnel will be divided between civil and electrical services. During Project construction, non-potable water would be required for common construction-related purposes, including but not limited dust

[1] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.

[2] Note that the modeling does not account for testing, commissioning, and cleanup as heavy-duty construction equipment would not be utilized.

suppression, soil compaction, and grading. No new water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction.

Operations

The Project would operate year-round. The Project Site would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

During Project O&M, it is anticipated that minimal water would be required for solar panel washing. Water consumption for washing panels is expected to be approximately 0.2 acre-feet (AF) of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge (inundation of water), and no chemicals or other materials are used. It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department standards. The water tank shall have a Los Angeles County Fire Department supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning complies with all applicable local, State, and federal requirements and best management practices (BMPs). The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

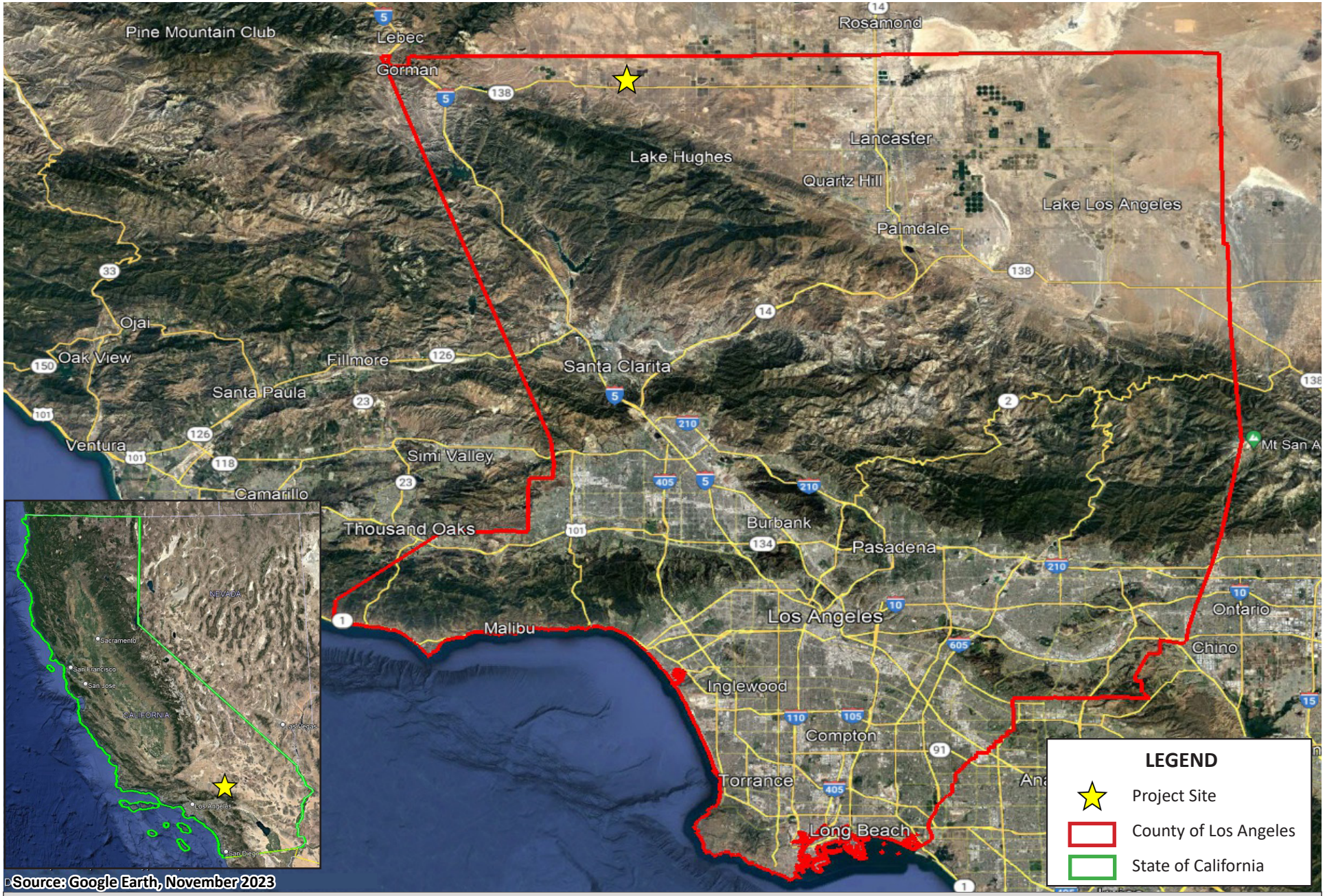


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

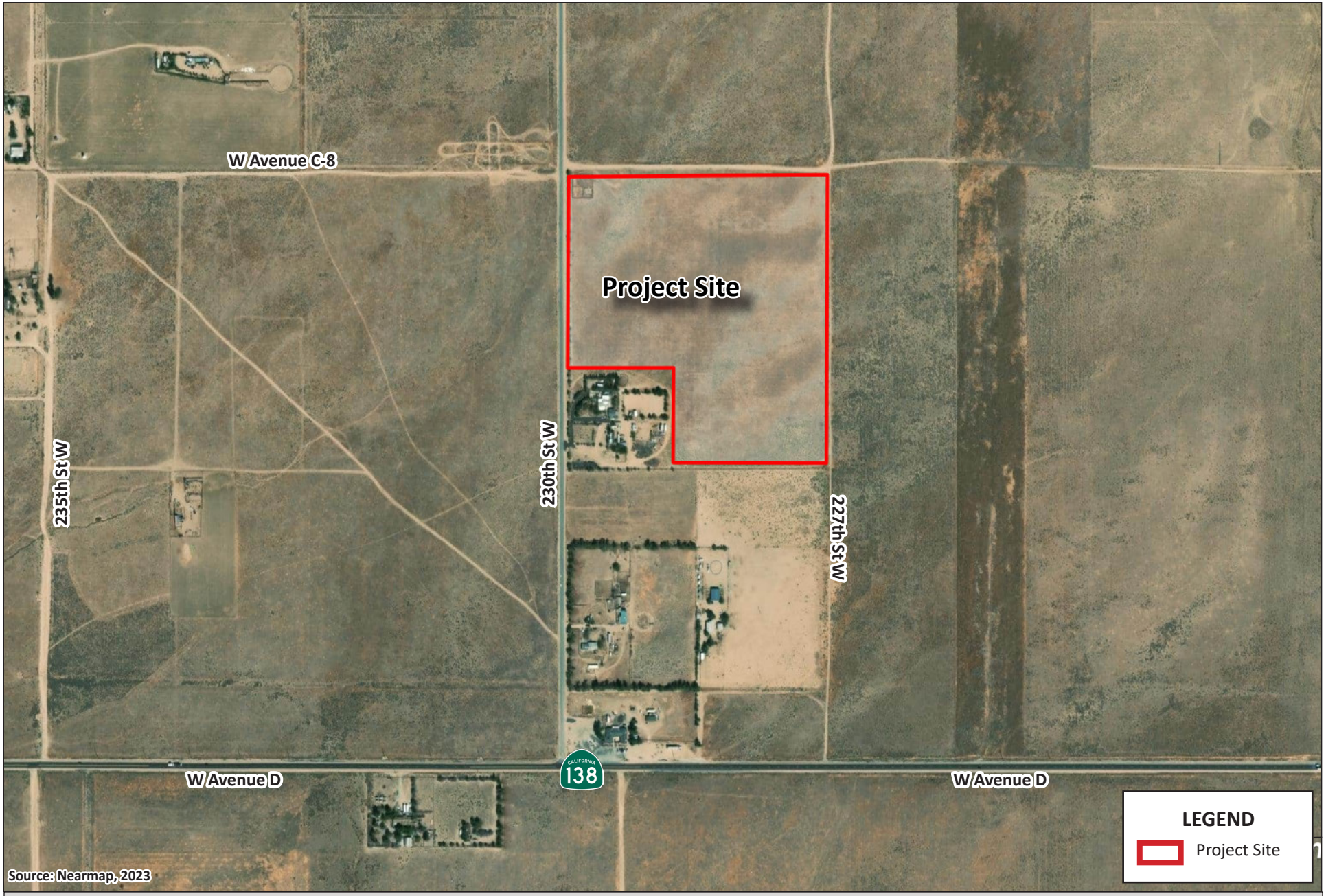


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

ENVIRONMENTAL SETTING

Greenhouse Gases and Climate Change

Certain gases in the Earth's atmosphere classified as GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters the Earth's atmosphere from space. A portion of the radiation is absorbed by the Earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the Earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the Earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere.[3] **Table 1: Description of Greenhouse Gases** describes the primary GHGs attributed to global climate change, including their physical properties.

[3] Intergovernmental Panel on Climate Change, Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf, accessed December 19, 2023.

Table 1: Description of Greenhouse Gases	
Greenhouse Gas	**Description**
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (Global Warming Potential [GWP] of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years. The GWP of N_2O is 298.
Methane (CH_4)	CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH_4 is about 12 years and the GWP is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year GWP of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. GWPs range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. GWPs for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The GWP of SF_6 is 23,900.
Hydrochlorofluoro-carbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year GWPs of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.

Table 1: Description of Greenhouse Gases	
Nitrogen Trifluoride (NF_3)	NF_3 was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high GWP of 17,200.
Source: Compiled from USEPA, *Overview of Greenhouse Gases*, (https://www.epa.gov/ghgemissions/overview-greenhouse-gases), accessed August 24, 2023; USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019*, 2021; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; USEPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.	

REGULATORY FRAMEWORK

Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency (USEPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. USEPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the USEPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the USEPA's assessment of the scientific evidence that form the basis for the USEPA's regulatory actions.

Presidential Executive Orders 13990 and 14008

On January 20, 2021, President Biden issued Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." Executive Order 13990 directs Federal agencies to immediately review and take action to address the promulgation of Federal regulations and other actions that conflict with these important national objectives and to immediately commence work to confront the climate crisis. Executive Order 13990 directs the Council on Environmental Quality (CEQ) to review CEQ's 2020 regulations implementing the procedural requirements of the National Environmental Policy Act (NEPA) and identify necessary changes or actions to meet the objectives of Executive Order 13990.

Executive Order 13390 also directs the USEPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks," promulgated in April 2020.

On January 27, 2021, President Biden signed Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," to declare the Administration's policy to move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories. In line with these Executive Order directives, CEQ is reviewing the 2020 NEPA regulations and plans to publish a notice of proposed rulemaking (NPRM) to identify necessary revisions in order to comply with the law; meet the environmental, climate change, and environmental justice objectives of Executive Orders 13990 and 14008; ensure full and fair public involvement in the NEPA process; provide regulatory certainty to stakeholders; and promote better decision making consistent with NEPA's statutory requirements. This phase 1 rulemaking will propose a narrow set of changes to the 2020 NEPA regulations to address these goals.

State

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO_2 equivalents (CO_2e) in the world and produced 459 million gross metric tons of CO_2e in 2013. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards,

were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

Assembly Bill (AB) 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

California Air Resource Board Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual").[4] The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions and additional GHG reduction measures by both CARB and the State's Climate Action Team, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program.[5] Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several sustainable community strategies have been adopted).
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).

---

4 CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

5 The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.
- The California Sustainable Freight Action Plan was developed in 2016 and provides a vision for California's transition to a more efficient, more economically competitive, and less polluting freight transport system. This transition of California's freight transport system is essential to supporting the State's economic development in coming decades while reducing pollution.
- CARB's Mobile Source Strategy demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years. The Mobile Source Strategy includes increasing zero emission buses and trucks.

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO_2e ($MMTCO_2e$) to 545 $MMTCO_2e$. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. By 2016, California had reduced GHG emissions below 1990 levels, achieving AB 32's 2020 goal four years ahead of schedule.

In 2016, the Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017, CARB adopted a second update to the Scoping Plan.[6] The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other Federal actions.

[6] California Air Resources Board (CARB), *2017 Climate Change Scoping Plan,* https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed December 19, 2023.

The 2022 Scoping Plan is the most recent and comprehensive Scoping Plan. The 2022 Scoping Plan address recent legislation targets to reduce anthropogenic emissions to 85 percent below 1990 levels by 2045.[7]

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the USEPA's denial of an implementation waiver. The USEPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions. In 2019 the USEPA published the SAFE Rule that revoked California's waiver. However, the USEPA is currently reconsidering the SAFE rule pursuant to Presidential Executive Order 13390.

SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The CPUC adopted the regulations required by SB 1368 on August 29, 2007.

[7] California Air Resources Board (CARB), 2022 Scoping Plan for Achieving Carbon Neutrality.https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed December 19, 2023.

The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO_2 per megawatt-hour.

SB 1078 and SBX1-2 (Renewable Electricity Standards)

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SBX1-2 codified the 33 percent by the 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 25 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans)

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

AB 1346 (Air Pollution: Small Off-Road Engines)

Signed into Law in October 2021, AB 1346 requires CARB, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, consistent with federal law, by July 1, 2022. AB 1346 requires CARB to identify and, to the extent feasible, make available funding for commercial rebates or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05. Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07. Issued on January 18, 2007, Executive Order S 01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009.

Executive Order S-13-08. Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08. Issued on November 17, 2008, Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09. Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standards (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15. Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of $MMTCO_2e$. The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18. Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20. Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

California Regulations

CARB Advanced Clean Truck Regulation. CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- Zero-Emission Truck Sales: Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- Company and Fleet Reporting: Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Regional

Southern California Association of Governments 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy [2020 RTP/SCS]). The RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The RTP/SCS is a long-range vision plan that balances future mobility and housing needs with economic, environmental, and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions.

Local

Antelope Valley Air Quality Management District (AVAQMD)

The AVAQMD's CEQA and Federal Conformity Guidelines identifies both annual and daily construction significant thresholds for GHG emissions of 100,000 $MTCO_2e$ and 548,000 pounds CO_2e, respectively.[8] The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the Proposed Project, the AVAQMD's numeric thresholds are used as the significance thresholds in addition to a qualitative discussion of the Project's compliance with applicable plans, policies, regulations, and requirements.

Antelope Valley Area Plan

The Antelope Valley Area Plan (AVAP), adopted June 2015, consists of the following goals and policies that area applicable to the proposed Project[9]:

Land Use Element

Goal LU 5: A land use pattern that decreases greenhouse gas emissions.

> Policy LU 5.1: Ensure that development is consistent with the sustainable Communities Strategy adopted in 2012, an element of the Regional Transportation Plan developed by the Southern California Association of Governments.

Conservation and Open Space Element

Goal COS 9: Improved air quality in the Antelope Valley

> Policy COS 9.4: Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.

Goal COS 10: Diverse energy systems that utilize existing renewable or waste resources to meet future energy demands.

> Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed.

---

8 Antelope Valley AQMD, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2016, https://www.avaqmd.ca.gov/files/e5b34d385/AV+CEQA+Guides+2016.pdf, accessed April 10, 2025.

9 County of Los Angeles, Antelope Valley Area Plan Town and County June 2015, https://case.planning.lacounty.gov/assets/upl/project/tnc_draft-20150601.pdf, accessed December 19,2023.

Goal COS 13: Utility-scale energy production facilities for off-site use that reduce consumption of non-renewable resources while minimizing the impacts on natural resources and existing communities.

> Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.

Los Angeles County General Plan 2035

The Los Angeles County General Plan 2035 establishes the long range vision, goals, policies, and programs for the unincorporated areas of Los Angeles County.[10] The goals and policies outlined in the Air Quality Element are relevant to the proposed Project:

Air Quality Element

Goal AQ 1: Protection from exposure to harmful air pollutants

> Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.

Goal AQ 3: Implementation of plans and programs to address the impacts of climate change.

> Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.

Final Unincorporated Los Angeles County Community Climate Action Plan 2020

The Unincorporated Los Angeles County Community Climate Action Plan (CCAP), adopted in 2015 is a component of the Los Angeles County General Plan 2035 and describes the County's plan for reducing GHG emissions.[11] The following goals and policies are relevant to the proposed Project:

BE-3: Solar Installations

> Action Goal: Promote and incentivize solar installation for new and existing homes, commercial buildings, carports, and parking areas, water heaters, and warehouses.

BE-4: Alternative Renewable Energy Program Goal

---

[10] County of Los Angeles Department of Regional Planning, General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 19, 2023.

[11] County of Los Angeles Department of Regional Planning, Unincorporated Los Angeles County Community Climate Action Plan 2020, https://case.planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf, accessed December 19, 2023.

Implement pilot projects for currently feasible wind, geothermal, and other forms of alternative renewable energy.

LUT-9: Idling Reduction Goal

Action Goal: Encourage idling limits of 3 minutes for heavy-duty construction equipment as feasible within manufacturer's specifications.

LUT-12: Electrify Construction and Landscaping Equipment.

Action Goal: Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Project would have a significant impact in regard to GHG emissions if one or more of the following would occur:

Threshold a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact GHG-1); or

Threshold b): Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact GHG-2).

IMPACT ANALYSIS

Impact GHG-1: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Project-related GHG emissions are not confined to a particular air basin; instead, GHG emissions are dispersed worldwide. No single project is large enough to result in a measurable increase in global concentration of GHG emissions. Therefore, impacts identified below are not project-specific impacts to global climate change, but the Project's contribution to this cumulative impact. The Project would result in direct and indirect GHG emissions. Direct GHG emissions include emissions from construction and decommissioning activities, and mobile sources, while indirect sources include emissions from energy consumption and water demand. The California Emissions Estimator Model (CalEEMod), version 2022.1.1.21, was used to estimate direct and indirect Project-related GHG emissions.

Construction

The Project would result in direct emissions of GHGs from construction. The approximate quantity of annual GHG emissions generated by Project construction equipment is depicted in **Table 2: Construction-Related Greenhouse Gas Emissions**.

Table 2: Construction-Related Greenhouse Gas Emissions	
Category	**$MTCO_2e$**
Construction	329
Water Usage[1]	2.41
Total Construction	331.41
30-Year Amortized Construction	11
1. Construction water usage emissions are based on an anticipated consumption of 13 (AF) during construction. During construction, water is anticipated to be supplied from an off-site source.	
Source: CalEEMod version 2022.1.1.21. Refer to **Appendix A** for model outputs.	

As shown in **Table 2**, the Project would result in the generation of approximately 331.41 $MTCO_2e$ over the course of construction. Construction GHG emissions are typically summed and amortized over a 30-year period, then added to the operational emissions.[12] The amortized Project construction emissions would be 11 $MTCO_2e$ per year. Once construction is complete, the generation of these GHG emissions would cease.

Operations

Operational or long-term emissions occur over the life of the Project. Operational emissions associated with the Project would include those generated from panel washing, maintenance, and the BESS. Total GHG emissions from both construction and operation associated with the Project are summarized in **Table 3: Project Greenhouse Gas Emissions**.

Table 3: Project Greenhouse Gas Emissions			
Emissions Source	**Annual $MTCO_2e$**	**Annual CO_2e (ton)**	**Daily CO_2e (pounds)**
Construction	*11*	*12.2*	*7,917*
Operations			
Area Source	19.8	21.8	242.0
Energy	0.0	0.0	0.0
Mobile	56.8	62.6	481
Waste	0.0	0.0	0.0
Water	0.0	0.0	0.0
Decommissioning	11	12.2	7,917

12 The amortization period of 30-years is based on the standard assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13,* August 26, 2009).

Total Project Emissions	***98.7***	***108.8***	***16,557***
AVAQMD Threshold	--	*100,000*	*548,000*
Exceeds Threshold?	**--**	**No**	**No**
Source: CalEEMod version 2022.1.1.21 Refer to **Appendix A** for model outputs (Annual $MTCO_2e$ and pounds per day). 1 $MTCO_2e$ = 1.10231 tons.			

Each operational source of GHG emissions is described below.

- **Area Source Emissions**. Area source emissions would be generated due to potential BESS architectural coatings. Other typical area sources (e.g., consumer products, landscaping equipment, etc.) would not be utilized by the Project.
- **Energy Source Emissions**. Energy source emissions would be generated due to electricity usage associated with the Project. The Project's operational activities would not consume natural gas. The Project would consume negligible amounts of electricity for auxiliary equipment, such as BESS HVAC units, communications equipment, and lighting.
- **Mobile Source Emissions.** Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, reactive organic gasses (ROG), NO_X, SO_X, PM10, and PM2.5 are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM10, and PM2.5); however, CO tends to be a localized pollutant, dispersing rapidly at the source.

During operations, the Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities. In addition, it is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 round trips per year (20 one-way trips); refer to **Appendix A: GHG Emissions Data** for assumptions and calculations.

- **Solid Waste**. Solid waste releases GHG emissions in the form of methane when these materials decompose. As a solar generation and energy storage facility project, the Project would generate limited amounts of solid waste during operations. Therefore, solid waste would not be generated from operations staff beyond existing conditions.
- **Water**. GHG emissions from water demand would occur from electricity consumption associated with water conveyance and treatment. As discussed in the Project Description, operational activities are expected to consume 0.2 AF of water per year. The water is anticipated to be supplied from an off-site source.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project Site should be decommissioned and deconstructed, or it may seek an extension of its conditional use permit (CUP). The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, State, and federal requirements BMPs. The Project would include BMPs

to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off-site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including the fences and the concrete pads that may support the inverters, transformers, and related equipment. The exterior fencing and gates would be removed, and materials would be recycled to the extent feasible. Project roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. The area would be thoroughly cleaned, and all debris removed. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimized disposal in landfills. Decommissioning is expected to take one year or less, using similar equipment and an equal or lower number of workers on a daily basis. As a worst-scenario analysis, it was assumed that GHG emissions related to decommissioning would be equal to the GHG emissions related to construction. This is a more conservative (higher) estimate due to GHG emissions from electricity and vehicles are likely to be much lower 30 years in the future due to the continued implementation of existing regulations, plans, and policies.

Total Project-Related Sources of Greenhouse Gas Emissions

As shown in **Table 3**, the Project would generate approximately 108.8 tons of CO_2e (98.7 $MTCO_2e$) per year and approximately 16,557 pounds per day of CO_2e from construction, operations, and decommissioning. Therefore, the proposed Project's total GHG emissions would be below the AVAQMD thresholds of 100,000 tons CO_2e per year and 548,000 pounds CO_2e per day. Thus, Project-related emissions would have a less than significant impact related to generation of GHG emissions.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

Impact GHG-2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Consistency with the Antelope Valley Area Plan

The AVAP includes goals and policies that all new projects are required to comply with, as applicable. Project consistency with the AVAP goals and policies is discussed in **Table 4: Project Consistency with the Antelope Valley Area Plan**. As depicted in **Table 4**, the Project would be consistent with the AVAP, and impacts would be less than significant.

Table 4: Project Consistency with the Antelope Valley Area Plan	
Antelope Valley Area Plan Policy	**Project Consistency**
Policy LU 5.1: Ensure that development is consistent with the sustainable Communities Strategy adopted in 2012, an element of the Regional Transportation Plan developed by the Southern California Association of Governments.	**Consistent.** The Project is a solar generation facility and energy storage facility, which would meet regional and federal ambient air quality standards and offset GHG emissions that would otherwise have resulted from producing an equivalent amount of electricity from fossil fuel-fired electric generators. Therefore, the Project would be consistent with this policy.
Policy COS 9: Promote recycling and composting throughout the Antelope Valley to reduce air quality impacts from waste disposal activities and landfill operations.	**Consistent.** The Project would include BMPs to ensure the collection and recycling of modules upon decommissioning to avoid the potential for modules to be disposed of as municipal waste. Therefore, the Project would be consistent with this policy.
Policy COS 10.1: Encourage the use of non-hazardous materials in all individual renewable energy systems and all utility-scale renewable energy production facilities to prevent the leaching of potentially dangerous run-off materials into the soil and watershed**.**	**Consistent.** The proposed Project is a solar PV and energy storage facility that would utilize non-hazardous materials. Therefore, the Project would be consistent with this policy.
Policy COS 10.5: Encourage the development of emerging energy technologies, such as "solar roads".	**Not inconsistent.** The Project would encourage the development of solar generation and energy storage facilities in Los Angeles County. The proposed Project would promote access to clean energy and displace fossil fuel energy production. Therefore, the Project would not be inconsistent with this policy.
Policy COS 13.3: Require all utility-scale renewable energy production facilities to develop and implement a decommissioning plan, with full and appropriate financial guarantee instruments that will restore the full site to its natural state upon complete discontinuance of operations and will restore non-operational portions of the site while the remainder continues operating.	**Consistent.** At the end of the operation of the proposed Project, the Applicant may determine that the Project Site should be decommissioned and deconstructed. The area would be thoroughly cleaned, and all debris removed. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimized disposal in landfills. Therefore, the Project would be consistent with this policy.
Source: Antelope Valley Area Plan, June 2015.	

Consistency with the County's 2015 Community Climate Action Plan (CCAP)

The 2015 County Community Climate Action Plan (CCAP) describes the County's plan for reducing GHG emissions. Project consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP) goals and policies is discussed in **Table 5: Project Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP)**. As depicted in **Table 5**, the Project would be consistent with the CCAP, and impacts would be less than significant.

Table 5: Project Consistency with the Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	
Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	**Project Consistency**
BE-3 Solar Installation: Promote and incentivize solar installation for new and existing homes, commercial buildings, carports, and parking areas, water heaters, and warehouses.	**Consistent.** The Project would provide a solar generation and energy storage facility. The proposed Project would promote access to clean energy and help the region meet its RPS goals. Therefore, the Project would be consistent with this policy.
LUT-9 Idling Reduction Goal: Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications.	**Consistent.** The Project may include occasional light- and heavy-duty truck uses for operations and maintenance activities. Truck use associated with the Project would be required to comply with all CARB regulations, including the LCFS and newer engine standards. The Project would produce little waste during Project construction and operations. Therefore, the proposed Project would be consistent with this policy.
LU 12 Electrify Construction and Landscaping Equipment Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.	**Consistent.** The proposed Project would utilize electric equipment wherever feasible during Project construction, operations, and maintenance. Therefore, the proposed Project would be consistent with this policy.
Source: Unincorporated Los Angeles County Community Climate Action Plan (CCAP)	

Consistency with the 2017 and 2022 CARB Scoping Plan

The 2017 and 2022 Scoping Plan identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. **Table 6: Consistency with the 2017 and 2022 Scoping Plan** provides an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Project would be consistent with or exceed reduction actions/strategies outlined in the 2017 and 2022 Scoping Plan. As shown, the Project would be consistent with the 2017 and 2022 CARB Scoping Plan, and impacts would be less than significant in this regard.

Table 6: Consistency with the 2017 and 2022 Scoping Plan	
2017 Scoping Plan	
Actions and Strategies	**Project Consistency Analysis**
SB 350	
Achieve a 50 percent Renewables Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030.	**Consistent.** The Project includes the construction and operation of a renewable energy generation and storage facility. Therefore, the Project would help the State achieve the RPS goals. As such, the Project would be consistent with SB 350 (and SB 100).
Low Carbon Fuel Standard (LCFS)	
Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.	**Consistent.** This standard applies to all vehicle fuels sold in California including those that could be used in vehicles associated with the Project. The Project would be consistent with this goal.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	**Consistent** As a solar renewable energy project, the Project would not emit a large amount of CH_4 (methane) emissions. Furthermore, the Project would comply with all applicable CARB and AVAQMD hydrofluorocarbon regulations. As such, the Project would be consistent with the SLCP reduction strategy.
Post-2020 Cap and Trade Programs	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals.	**Not Applicable.** As shown in **Table 3**, the Project is estimated to generate approximately 98.7 $MTCO_2e$ per year, which is below the 25,000 $MTCO_2e$ per year Cap-and-Trade screening level. Therefore, this goal is not applicable to the Project.
2022 Scoping Plan	
AB 1279	
AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage (CCUS) technologies.	**Consistent.** As a solar renewable project, the proposed Project would promote renewable energy production and would generate less than significant GHG emissions from Project construction and operations. Community and utility-scale solar project with BESS will help the region and State meet its RPS goals and ultimately carbon neutrality. The Project would be consistent with this goal.
SB 1020	
SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target of 2045 to 2035.	**Consistent.** As a solar renewable energy project, the Project would promote renewable energy production. The Project brings zero carbon energy to the regional supply grid. The Project would be consistent with this goal.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the Project is consistent with applicable plans, policies, regulations and GHG reduction actions/strategies, such as those outlined

in the AVAP, Unincorporated Los Angeles County CCAP, and 2017 and 2022 Scoping Plan Update, including the State laws listed in **Table 6** above. Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Thus, the Project would not make a cumulatively considerable contribution to significant cumulative climate change impacts.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

CUMULATIVE IMPACTS

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As the Project provides a net positive effect on GHG emissions by providing clean renewable energy and would comply with all applicable plans, rules, regulations, and policies, its contribution to cumulative GHG emissions and climate change impacts would be less than cumulatively considerable.

REFERENCES

California Air Resources Board, 2017 Scoping Plan, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed December 19, 2023.

California Air Resources Board, 2022 Scoping Plan, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed December 19, 2023.

County of Los Angeles, Antelope Valley Area Plan Town and County June 2015, https://case.planning.lacounty.gov/assets/upl/project/tnc_draft-20150601.pdf, accessed December 19, 2023.

County of Los Angeles Department of Regional Planning, General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 19, 2023.

County of Los Angeles Department of Regional Planning, Unincorporated Los Angeles County Community Climate Action Plan 2020, https://case.planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf, accessed December 19, 2023.

Edison International, Electric Company EGS/Sustainability Quantitative Information, 2020.

Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, 2007, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf, accessed December 19, 2023.

Intergovernmental Panel on Climate Change, Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013. https://www.ipcc.ch/report/ar5/wg1/, accessed December 19, 2023.

National Research Council, Advancing the Science of Climate Change, 2010.

Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy - Connect SoCal, September 3, 2020.

USEPA, Methane and Nitrous Oxide Emission from Natural Sources, April 2010.

USEPA, Overview of Greenhouse Gases, https://www.epa.gov/ghgemissions/overview-greenhouse-gases, accessed December 19, 2023.

Appendix A

GHG Emissions Data

230th Street Solar Project (GHG Version) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

3.3. Site Preparation (2025) - Unmitigated

3.5. Grading (2025) - Unmitigated

3.7. Construction/Installation (2025) - Unmitigated

3.9. PV Vendor Trip (2025) - Unmitigated

3.11. Paving (2025) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	230th Street Solar Project (GHG Version)
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	6.30
Precipitation (days)	22.6
Location	230th St W & W Avenue C 8, California 93536, USA
County	Los Angeles-Mojave Desert
City	Unincorporated
Air District	Antelope Valley AQMD
Air Basin	Mojave Desert
TAZ	6809
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

User Defined Industrial	31.0	User Defined Unit	31.0	1,350,360	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.30	2.79	21.9	30.7	0.06	0.86	1.80	2.66	0.80	0.44	1.23	—	7,813	7,813	0.25	0.29	10.5	7,917
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.23	2.72	25.3	26.6	0.05	0.95	4.35	5.01	0.88	1.75	2.36	—	7,408	7,408	0.23	0.49	0.31	7,560
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.75	0.63	5.39	6.89	0.01	0.21	0.85	1.06	0.19	0.29	0.48	—	1,955	1,955	0.06	0.09	1.39	1,985
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	0.12	0.98	1.26	< 0.005	0.04	0.16	0.19	0.04	0.05	0.09	—	324	324	0.01	0.02	0.23	329

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	40.7	0.50	58.7	< 0.005	0.10	< 0.005	0.11	0.08	< 0.005	0.08	0.00	249	249	0.01	< 0.005	0.02	250
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	31.0	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.15	35.8	0.25	29.0	< 0.005	0.05	< 0.005	0.05	0.04	< 0.005	0.04	0.00	124	124	0.01	< 0.005	< 0.005	125
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	6.53	0.05	5.29	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	0.00	20.6	20.6	< 0.005	< 0.005	< 0.005	20.7

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	0.02	7.45
Area	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	10.4	40.7	0.50	58.7	< 0.005	0.10	< 0.005	0.11	0.08	< 0.005	0.08	0.00	249	249	0.01	< 0.005	0.02	250
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Area	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	31.0	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.07	5.07	< 0.005	< 0.005	< 0.005	5.32
Area	5.15	35.8	0.24	29.0	< 0.005	0.05	—	0.05	0.04	—	0.04	—	119	119	< 0.005	< 0.005	—	120
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	5.15	35.8	0.25	29.0	< 0.005	0.05	< 0.005	0.05	0.04	< 0.005	0.04	0.00	124	124	0.01	< 0.005	< 0.005	125

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88
Area	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.94	6.53	0.05	5.29	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	0.00	20.6	20.6	< 0.005	< 0.005	< 0.005	20.7

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.25	0.25	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.97	0.87	< 0.005	0.04	—	0.04	0.04	—	0.04	—	150	150	0.01	< 0.005	—	151

Demolitio	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.9	24.9	< 0.005	< 0.005	—	24.9
Demolitio n	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.04	2.52	0.43	0.02	0.04	0.74	0.77	0.04	0.21	0.24	—	2,656	2,656	< 0.005	0.42	0.15	2,781
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.9	59.9	< 0.005	< 0.005	0.12	60.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.11	122
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.02	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.3	19.3	< 0.005	< 0.005	0.02	20.2

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27	1.07	10.2	9.42	0.02	0.44	—	0.44	0.41	—	0.41	—	1,668	1,668	0.07	0.01	—	1,674
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.59	0.54	< 0.005	0.03	—	0.03	0.02	—	0.02	—	96.0	96.0	< 0.005	< 0.005	—	96.3
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.9	15.9	< 0.005	< 0.005	—	15.9

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72	1.44	14.8	13.9	0.04	0.63	—	0.63	0.58	—	0.58	—	4,262	4,262	0.17	0.03	—	4,276
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.85	0.80	< 0.005	0.04	—	0.04	0.03	—	0.03	—	245	245	0.01	< 0.005	—	246
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.6	40.6	< 0.005	< 0.005	—	40.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.03	0.03	1.20	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,474	1,474	< 0.005	0.21	0.11	1,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.04	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.6	78.6	< 0.005	< 0.005	0.15	79.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	84.8	84.8	< 0.005	0.01	0.11	88.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.02	14.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Construction/Installation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.91	2.44	20.2	20.7	0.05	0.84	—	0.84	0.77	—	0.77	—	4,845	4,845	0.20	0.04	—	4,862
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	0.27	2.27	2.32	0.01	0.09	—	0.09	0.09	—	0.09	—	544	544	0.02	< 0.005	—	546
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	90.1	90.1	< 0.005	< 0.005	—	90.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.03	0.03	1.14	0.29	0.01	0.02	0.43	0.46	0.02	0.12	0.14	—	1,473	1,473	< 0.005	0.21	4.42	1,539
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.07	0.80	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	153	153	0.01	0.01	0.29	155
Vendor	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	166	166	< 0.005	0.02	0.21	173
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.4	25.4	< 0.005	< 0.005	0.05	25.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.4	27.4	< 0.005	< 0.005	0.04	28.6

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. PV Vendor Trip (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	0.87	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	137
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.97	8.97	< 0.005	< 0.005	—	9.00
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.48	1.48	< 0.005	< 0.005	—	1.49

Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.01	0.44	0.10	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	601	601	< 0.005	0.08	1.81	628
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.5	39.5	< 0.005	0.01	0.05	41.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.54	6.54	< 0.005	< 0.005	0.01	6.83
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.25	1.64	< 0.005	0.06	—	0.06	0.06	—	0.06	—	253	253	0.01	< 0.005	—	254
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.63	7.63	< 0.005	< 0.005	—	7.66
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.26	1.26	< 0.005	< 0.005	—	1.27
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.36	0.31	0.54	9.76	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,495	1,495	0.05	0.05	6.07	1,516
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.29	0.59	6.28	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,327	1,327	0.05	0.05	0.16	1,342
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.2	41.2	< 0.005	< 0.005	0.08	41.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.81	6.81	< 0.005	< 0.005	0.01	6.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	0.02	7.45
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	0.02	7.45
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.10	7.10	< 0.005	< 0.005	< 0.005	7.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	10.4	9.64	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Total	10.4	40.7	0.49	58.7	< 0.005	0.10	—	0.10	0.08	—	0.08	—	242	242	0.01	< 0.005	—	242
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.94	0.87	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Total	0.94	6.53	0.04	5.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.7	19.7	< 0.005	< 0.005	—	19.8

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2025	1/22/2025	5.00	16.0	—
Site Preparation	Site Preparation	1/23/2025	2/20/2025	5.00	21.0	—
Grading	Grading	2/21/2025	3/23/2025	5.00	21.0	—
Construction/Installation	Building Construction	4/8/2025	6/3/2025	5.00	41.0	—
PV Vendor Trip	Building Construction	6/4/2025	7/7/2025	5.00	24.0	—
Paving	Paving	3/24/2025	4/7/2025	5.00	11.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Off-Highway Trucks	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Skid Steer Loaders	Diesel	Average	1.00	8.00	423	0.48
Grading	Rollers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Cranes	Diesel	Average	1.00	8.00	82.0	0.20
Construction/Installation	Other Construction Equipment	Diesel	Average	1.00	8.00	14.0	0.74
Construction/Installation	Bore/Drill Rigs	Diesel	Average	1.00	7.00	367	0.29
Construction/Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	46.0	0.45
Construction/Installation	Excavators	Diesel	Average	1.00	7.00	84.0	0.37
Construction/Installation	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Construction/Installation	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Construction/Installation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Construction/Installation	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Construction/Installation	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
PV Vendor Trip	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	37.0	0.48
Paving	Rollers	Diesel	Average	1.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	41.0	47.0	LDA,LDT1,LDT2
Demolition	Vendor	—	0.00	HHDT,MHDT
Demolition	Hauling	22.0	37.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	41.0	47.0	LDA,LDT1,LDT2
Site Preparation	Vendor	11.0	47.0	HHDT,MHDT
Site Preparation	Hauling	0.00	0.00	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	41.0	47.0	LDA,LDT1,LDT2
Grading	Vendor	11.0	47.0	HHDT,MHDT
Grading	Hauling	0.00	0.00	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	41.0	47.0	LDA,LDT1,LDT2
Paving	Vendor	0.00	0.00	HHDT,MHDT
Paving	Hauling	0.00	0.00	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Construction/Installation	—	—	—	—
Construction/Installation	Worker	41.0	47.0	LDA,LDT1,LDT2
Construction/Installation	Vendor	11.0	47.0	HHDT,MHDT

Construction/Installation	Hauling	0.00	0.00	HHDT
Construction/Installation	Onsite truck	0.00	0.00	HHDT
PV Vendor Trip	—	—	—	—
PV Vendor Trip	Worker	0.00	0.00	LDA,LDT1,LDT2
PV Vendor Trip	Vendor	2.00	106	HHDT,MHDT
PV Vendor Trip	Hauling	0.00	0.00	HHDT
PV Vendor Trip	Onsite truck	0.00	0.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
PV Vendor Trip	0.00	0.00	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,613	—
Site Preparation	—	—	10.5	0.00	—

Grading	—	—	10.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	0.05	0.00	0.00	12.1	2.19	0.00	0.00	570

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	2,025,540	675,180	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Industrial	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.9	annual days of extreme heat
Extreme Precipitation	3.50	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	11.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	75.4
AQ-PM	2.66
AQ-DPM	5.23
Drinking Water	79.0
Lead Risk Housing	26.3
Pesticides	46.2
Toxic Releases	38.6
Traffic	27.1
Effect Indicators	—
CleanUp Sites	58.2

Groundwater	35.0
Haz Waste Facilities/Generators	74.7
Impaired Water Bodies	33.2
Solid Waste	76.4
Sensitive Population	—
Asthma	50.3
Cardio-vascular	48.9
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.5
Housing	37.5
Linguistic	7.38
Poverty	61.8
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	54.70293853
Employed	9.136404466
Median HI	39.4199923
Education	—
Bachelor's or higher	33.8380598
High school enrollment	100
Preschool enrollment	1.873476197
Transportation	—

Auto Access	98.98626973
Active commuting	19.70999615
Social	—
2-parent households	49.7754395
Voting	0.769921725
Neighborhood	—
Alcohol availability	91.7875016
Park access	21.18567946
Retail density	2.771718209
Supermarket access	5.479276274
Tree canopy	58.5268831
Housing	—
Homeownership	81.40639035
Housing habitability	70.38367766
Low-inc homeowner severe housing cost burden	21.59630438
Low-inc renter severe housing cost burden	89.60605672
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	46.81124086
Arthritis	0.0
Asthma ER Admissions	66.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	3.0
Cognitively Disabled	48.3
Physically Disabled	7.0
Heart Attack ER Admissions	51.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	98.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	26.5
SLR Inundation Area	0.0
Children	98.6
Elderly	16.2
English Speaking	73.9
Foreign-born	8.5
Outdoor Workers	11.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	99.8
Traffic Density	33.4
Traffic Access	23.0
Other Indices	—

Hardship	36.8
Other Decision Support	—
2016 Voting	71.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	38.0
Healthy Places Index Score for Project Location (b)	26.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on Project description
Construction: Construction Phases	Changes according to client construction schedule revised December 5, 2023.
Construction: Off-Road Equipment	changes according to client construction schedule
Construction: Trips and VMT	According to Project assumptions

Construction: Architectural Coatings	No architectural coating
Operations: Vehicle Data	Adjusted based on Project Assumptions Non Res W-O 47 miles 66.67 % Non Res O-O 47 miles 33.33%
Operations: Fleet Mix	Fleet Mix according to Project Description and Project Assumptions

Version 2, December 5, 2023

230th Street

Phase	Start Date	End Date	Work Days
Demolition	1/1/2025	1/22/2025	15
Site Preparation	1/23/2025	2/20/2025	20
Grading	2/21/2025	3/23/2025	22
Paving	3/24/2025	4/7/2025	10
Construction/Installation	4/8/2025	6/3/2025	40
PV Panel vendor Trips	6/4/2025	7/7/2025	23

Equipment List

Demolition	
Dozer	2
Excavator	3
Concrete/industrial straws	1
Site Preparation	
Tractor/loader/backhoe	1
Dozers	1
Grading	
Excavators	1
Rubber Tired Dozers	1
Off-Highway Trucks	1
Skid Steer Loaders	1
Rollers	1
Construction/Installation	
Cranes	1
Pile driver rig	1
Drill rig	1
Tractors/Loaders/Backhoes	1
Excavators	1
Off-Highway Trucks	1
concrete truck	1
Rubber Tired Dozers	1
Trenchers	1
Skid steer	1
PV Vendor Trips	
Tractor/Loader/Backhoe	1
Paving	
Rollers	1

Worker Trips

	Distance from Project Site	Population[1]	%	Peak Workers
Lancaster	28	173,376	104%	36
Palmdale	37	165,917	49%	34
Totals	*65*	*339,293*		*70*
		Trip Length (miles):	**47**	
		Estimated Worker Trips[2]:	**41**	

Notes:
1. California Department of Finance Demographic Research Unit, Report E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2021-2023, 1/1/2023
2. Based on the Los Angeles County Average Vehicle Occupancy rate for home-work trips within the *Year 2000 Post-Census Regional Travel Survey* , Table 12, prepared by Southern California Association of Governments, dated 2003.

PV Panel Vendor Trips

	Distance from Project Site	Trips/Day[1]	System Installation (# Days)	Total Trips
Port of Long Beach	106	2	47	95

Notes:
1. A similar project in Los Angeles County assumed 5 trips per day (113 days) from the Port of Long Beach for system installation (130 MW). Since the project is 7.5 MW, scaled down the trips/day to 5% of the other project.

Notes:
CalEEMod Worker Trips: Roundtrip
CalEEMod Vendor Trips: Roundtrip

Water Truck Trips (Off-Site Wells)

	Distance Traveled	Trips/Day[1]	System Installation (# Days)	Total Trips[2]
Site Prep	47	11	22	242
Grading	47	11	44	484
Construction/Installation	47	11	41	451
			Total	1,177

Notes:

1. For another solar project, during a 6-month construction, the project will use 13 acre-feet or 4,236,000 gallons
2.Using similar methodology, each water truck would hold an average of 4,697 gallons (4,236,000 gallons/4,697 gallons per truck = 902 trucks total. 902 total trucks / 87 total days site prep grading and construction = 11 trucks per day). Water trucks hold anywhere from 2,000 to as much as 20,000 gallons.
3.Trips assumed as Vendor trips. Distance is 47 miles based on off-site well extraction.

THAT DISTANCE IS HAULING	**37 miles to the Antelope Valley**
DISTANCE FOR	**Landfill**
DEMOLITION	

Operational Trips: The Project is exepcted to generate a total of approximatley 20 operational trips per year.

AQ Trip Rate: 0.0967742

GHG Trip Rate: 0.0015

*2 panel washing, 1 water truck

	Non Res W-O (panel washing)	Non Res O-O (water truck)
Length (miles)	47	47
Purpose and Percentages	66.67	33.33
Fleet Mix	HHD%	100

Appendix H

Phase I Environmental Site Assessment

HEI
Corporation

1805 Peninsula Pl.
Costa Mesa, CA 92627

c 714.875.1362

chayden@heicorporation.com

July 27, 2022

230th Street Solar
Ms. Stephanie Loucas
Vice President of Development
Wildcat Renewables, LLC
879 Sanchez Street
San Francisco, CA 94114



Re: Phase 1 Environmental Site Assessment
Undeveloped Pasture Land
49560 230th Street
North Antelope Valley, California

Dear Ms. Loucas:



Following is the Environmental Site Assessment report on the undeveloped pasture land at 49560 230th Street in an unincorporated area in the North Antelope Valley in Los Angeles County, California. Information obtained in the process of completing this assessment did not reveal the presence of "recognized environmental conditions" in connection with the property.

HEI Corporation appreciates this opportunity to be of service to you and to Wildcat Renewables, LLC. If you have any questions regarding this report, don't hesitate to contact me at chayden@heicorporation.com or at 714-875-1362.

Sincerely,



Christopher M. Hayden
President

PHASE 1
ENVIRONMENTAL SITE ASSESSMENT

Undeveloped Pasture Land
49560 230th Street
North Antelope Valley, California

July 2022

Prepared for

230th Street Solar
Ms. Stephanie Loucas
Wildcat Renewables, LLC

Prepared by

HEI Corporation
1805 Peninsula Place
Costa Mesa, CA 92627
714-875-1362

Project 22-5774

CONTENTS

PROFESSIONAL CERTIFICATION iii

1 SUMMARY 1

2 INTRODUCTION 2

2.1	Purpose	2
2.2	Scope of Work	2
2.3	Limitations and Exceptions of Assessments	3
2.4	Limiting Conditions	3
2.5	Previous Environmental Assessments/Investigations	3
2.6	Data Gaps	4

3 SUBJECT PROPERTY DESCRIPTION 5

3.1	Site and Improvements Description	5
3.2	Subject Property - Use History	6
3.3	Adjoining Properties - Use History	6
3.4	Aerial Photograph and USGS Analysis	7

4 RECORDS SEARCH 10

4.1	Regulatory Agencies Database Search	10
4.2	Regional Sources	12
4.3	County Sources	12

5 SUBJECT PROPERTY INSPECTION 13

5.1	Use and Storage of Hazardous Materials	13
5.2	Indications of PCBs	13
5.3	Indications of Solid Waste Disposal	13
5.4	Indications of Hazardous Waste Disposal	13
5.5	Indications of Asbestos Containing Materials	13
5.6	Indications of Vapor Intrusion/Vapor Encroachment	14

6 INTERVIEW 15

7 FINDINGS, OPINIONS AND CONCLUSIONS 16

Contents (Continued)

APPENDIX A	**LIMITATIONS**
APPENDIX B	**1975 AND 2015 USGS MAPS / ASSESSOR'S PARCEL MAP / RENEWABLE PROPERTIES PRELIMINARY ARRAY LOCATION**
APPENDIX C	**SUBJECT PROPERTY PHOTOGRAPHS** **1952, 1972, 1984, 1994, 2005, 2012 AND 2018 AERIAL PHOTOGRAPHS**
APPENDIX D	**REGULATORY AGENCIES DATABASE REPORT**
APPENDIX E	**STATEMENT OF QUALIFICATIONS FOR HEI CORPORATION**

PROFESSIONAL CERTIFICATION

This Phase 1 Environmental Site Assessment (ESA) was conducted within the limitations included as Appendix A. The site visits and records reviews were performed by Chris Hayden (EP), consistent with the proposal submitted to Wildcat Renewables, LLC. The information contained in this ESA was obtained from personal inspection, from various government agencies, and from sources deemed to be reliable.

PHASE 1
ENVIRONMENTAL SITE ASSESSMENT

Undeveloped Pasture Land
49560 230th Street
North Antelope Valley, California

Project 22-5774

I declare that, to the best of my professional knowledge and belief, I meet the definition of **Environmental Professional** (EP) as defined in Section 40 C.F.R. § 312.10(b).

I have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in Section 40 C.F.R. § 312.10(b).

Christopher M. Hayden
Environmental Professional

1 SUMMARY

This ESA was performed on undeveloped pasture land at 49560 230th Street in the unincorporated area of North Antelope Valley to the northwest of the City of Lancaster in Los Angeles County, California (hereinafter referred to as the "Subject Property").

After inspecting the Subject Property; reviewing its past uses; observing surrounding properties; searching through the Federal Environmental Protection Agency, State of California, and Los Angeles County records, and interviewing individuals for information regarding the current and past uses of the Subject Property, it can be concluded that there is no evidence of "recognized environmental conditions", as defined by the ASTM Standard Practice, in connection with the Subject Property. No further action is required at this time.

2 INTRODUCTION

2.1 Purpose

The purpose of this Environmental Site Assessment is to identify "recognized environmental conditions" in connection with the Subject Property. The ASTM Standard Practice for Environmental Site Assessments E 1527-21 defines "recognized environmental condition" as "(1) the presence of hazardous substances or petroleum products in, on or at the Subject Property due to a release to the environmental; (2) the likely presence of hazardous substances or petroleum products in, on or at the Subject Property due to a release or likely release to the environmental; or (3) the presence of hazardous substances or petroleum products in, on or at the Subject Property under conditions that pose a material threat of a future release to the environmental."

2.2 Scope of Work

As agreed between HEI Corporation and Wildcat Renewables, LLC, the scope of work for an ESA shall include the following:

- Site Inspection
- Surrounding Property Observation
- Interviews With Individuals Having Knowledge of the Operations on the Subject Property
- Inspection of City or County Building Permits
- Inspection of County Health Care Agency Files
- State and Federal Regulatory Agency Database Search For Posted Properties Within An ASTM Designated Radius of the Subject Property
- Inspection of City or County Fire Department Records
- Search for Records of Permits for Underground or Aboveground Storage Tanks
- Inspection of Owner/Operator's Books and Records

- Evaluate the Likelihood of Vapor Encroachment Onto the Subject Property or Vapor Intrusion Into Structures on the Subject Property

- Inspection of Historical Aerial Photographs, Sanborn Map Company Maps and/or Archive Cross Directories

- Preparation and Presentation of One pdf Report

2.3 Limitations and Exceptions of Assessments

This ESA is based upon the information available from a variety of sources and on the inspection of the Subject Property. The ESA was performed in accordance with industry standards and using appropriate methods. It is intended to allow a party to make an informed decision regarding the Subject Property.

HEI Corporation is not responsible or liable for the accuracy of the information provided by others. This ESA is not a guaranty that there is no subsurface contamination, nor can it be warranted that those areas of environmental concern herein noted are the only areas of potential contamination at the Subject Property.

There was no sampling or testing for the possible presence or absence of, nor is any definitive statement made in this ESA regarding the possible presence or absence of any of the following:

1) Asbestos Containing Materials

2) Radon

3) Lead Based Paints

4) Lead in the Drinking Water

2.4 Limiting Conditions

There were no limiting conditions with regard to the ability of HEI Corporation to conduct the property inspection portion of this ESA. Access was made available to all parts of the Subject Property.

2.5 Previous Environmental Site Assessments/Investigations

Neither the Client nor HEI Corporation are aware of any previously conducted Phase 1 Environmental Site Assessments or Environmental Investigations having been conducted on the Subject Property.

2.6 Data Gaps

Data gaps occur in three areas of this report. In the past uses section, there is a gap of more than 10 years in the historic aerial photographs available from NETR Online. In the records search section, a request for records was not submitted to the Los Angeles County Fire Department. In the interviews section, the owner of the Subject Property was not questioned. These data gaps have not affected the ability of HEI Corporation to form an opinion or arrive at a conclusion as to the environmental condition of the Subject Property.

3 SUBJECT PROPERTY DESCRIPTION

3.1 Site and Improvement Description

The Subject Property is located on a rectangularly shaped, approximately 1,750,839 square foot (40.19 acre), parcel of land. It is located on the eastern side of 230th Street, to the north of West Avenue D/State Route 138. Avenue C is to the north and 235th Street is to the west. It is located to the west of 220th Street. Interstate 5 is several miles to the west and State Highway 14 is several miles to the east. The Subject Property is located to the northwest of the City of Lancaster in Los Angeles County The assessor's parcel number is 3278-025-001.

The topography for the general area Subject Property is flat. The elevation is approximately 2,830 feet above sea level. Unnamed creeks were shown to the north and southeast. Hilly areas are to the southwest. The Governor Edmund G. Brown East Branch California Aqueduct is to the southwest. The soil beneath the Subject Property consists of alluvium, comprised of clay, silt, sand and gravel. The California State Water Resources Control Board's GeoTracker database was searched for information on groundwater in the area. No proximal datapoints were found. A Case Closure Summary was found for a leaking underground storage tank (LUST) site approximately 11.05 miles to the southeast, at 12701 West Lancaster Road. The summary, dated January 26, 2017, was prepared by the California Regional Water Quality Control Board, Lahontan Region. The summary stated that regional groundwater was estimated to be more than 200 feet below ground surface. The direction of groundwater flow was not given in this summary.

Structure There are no structures on the Subject Property.

Parking and Landscaping There is no parking area on the Subject Property. Vegetation observed on the parcel consisted of weedy shrubs. The plants were in good condition and no signs of unusually stressed vegetation were observed. No stained soil was observed.

Utilities The utility services to properties in the area of the Subject Property are provided by a variety of vendors. Electricity is provided by Southern California Edison; gas is provided by Southern California Gas (the Subject Property appears to use propane); and trash removal by private vendors. Water appeared to be sourced from an on-site well, and sewage treatment is most likely to be by septic tank.

3.2 Subject Property - Use History

The Subject Property consists of undeveloped pasture land, with stables located in the northwestern corner. The parcel on which the Subject Property is located also includes a residence, garage, stables and corrals.

3.2.1 Past Site Uses

Past uses for the Subject Property were determined by reviewing an aerial photographs dating back to 1952. No permit records were found for the Subject Property address on the Los Angeles County Department of Public Works online database, nor were archive city directories researched. No Sanborn Map Company maps were found for the area of the Subject Property on the City of Los Angeles Public Library's online database.

The 1952 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production. The aerial photographs in 1963 and 1974 showed the Subject Property to be undeveloped, with no evidence of activity observed. The 1994 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production. What may have been a mobile home was observed in the southwest corner of the parcel on which the Subject Property is located. The aerial photographs taken from 2005 to 2018 showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals.

3.3 Adjoining Properties - Use History

A number of properties adjoin the Subject Property.

North Adjoining to the north of the Subject Property, across an unpaved West Avenue C-8, is an undeveloped parcel of land.

East Adjoining to the east is an undeveloped parcel of land.

South Adjoining to the south is undeveloped pasture land.

West Adjoining to the west, across 230th Street, is an undeveloped parcel of land.

Nothing was observed on the adjoining properties that appeared to be of environmental concern to the Subject Property.

3.3.1 Adjoining Properties - Use History

Prior uses for the properties discussed above were determined be examining aerial photographs dating back to 1952 and by reviewing the Neenach School, California USGS Topographic Map. The aerial photographs and USGS map were obtained from NETR Online.

3.4 Historic Aerial Photograph and USGS Map Analysis

Historic aerial photographs are examined in order to determine what may have existed on a site prior to the construction of the existing buildings. The aerial photographs for the Subject Property dating back to the 1952 were obtained from NETR Online.

- An aerial photograph taken in **1952** showed the Subject Property and the adjoining properties to the north, east and south to be undeveloped and possibly in agricultural production. The adjoining property to the west, across an unpaved 230th Street, was undeveloped and possibly in agricultural production. Unnamed creeks were shown to the northwest and southeast. Small structures, likely residences, garages and storage buildings, were shown to the west, north and south. Agricultural activity was shown throughout the area. A copy of this aerial photograph can be seen as Figure C-1 in Appendix C.

- An aerial photograph taken in **1963** showed the Subject Property to be undeveloped, with no evidence of activity observed. The adjoining property to the north was shown to be undeveloped and possibly in agricultural production. The adjoining property to the east to be undeveloped, with no evidence of activity observed. The adjoining area to the south was undeveloped with no evidence of activity observed. The adjoining property to the west, across an unpaved 230th Street, was undeveloped and possibly in agricultural production. A newer small structure was shown to the south that appeared to be a residence. Small structures, likely residences, garages and storage buildings, were shown to the west, north and south. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown throughout the area. A copy of this aerial photograph can be seen as Figure C-2 in Appendix C.

- An aerial photograph taken in **1974** showed the Subject Property and the adjoining properties to the north, east and south to be undeveloped, with no evidence of activity observed. The adjoining property to the west, across an unpaved 230th Street, was undeveloped and possibly in agricultural production. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. Small structures, likely residences, garages and storage buildings, were shown to the west, north and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown throughout the area. A copy of this aerial photograph can be seen as Figure C-3 in Appendix C.

- An aerial photograph taken in **1994** showed the Subject Property to be undeveloped and possibly in agricultural production. What may have been a mobile home was observed in the southwest corner of the parcel on which the Subject Property is located. The adjoining property to the north was shown to be undeveloped and possibly in agricultural production. The adjoining properties to the east and south were shown to be undeveloped, with no evidence of activity observed. The adjoining area to the west of the, across an unpaved 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A newer commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Small structures,

likely residences, garages and storage buildings, were shown to the west, north and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the northwest and south. Most o the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-4 in Appendix C.

- An aerial photograph taken in **2005** showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals. The adjoining properties to the north, east and south were shown to be undeveloped, with no evidence of activity observed. The adjoining area to the west of the, across a paved 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Newer and existing small structures, likely residences, garages and storage buildings, were shown to the west, northwest, north, southwest and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the north, northwest and south. What appeared to be grading activity was shown to the northeast. Most of the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-5 in Appendix C.

- An aerial photograph taken in **2012** showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals. The adjoining properties to the north and east were shown to be undeveloped, with no evidence of activity observed. The eastern portion of the adjoining area to the south appeared to be used as pasture land, and the western portion was shown to be undeveloped. The adjoining area to the west of the, across 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Small structures, likely residences, garages and storage buildings, were shown to the west, northwest, north, southwest and south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the north, northwest and south. What appeared to be a graded area was shown to the northeast. Most of the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-6 in Appendix C.

- An aerial photograph taken in **2018** showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals. The adjoining properties to the north and east were shown to be undeveloped, with no evidence of activity observed. The eastern portion of the adjoining area to the south appeared to be used as pasture land, and the western portion was shown to be undeveloped. The adjoining area to the west of the, across an unpaved 230th Street, was shown to be undeveloped. Small structures were shown to the south that appeared to be a residence and storage buildings or stables. A

commercial or retail building was shown at the northeast corner of West Avenue D/State Route 138 and 230th Street. Small structures, likely residences, garages and storage buildings, were shown to the west, northwest, north, southwest, south and southeast. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. Unnamed creeks were shown to the northwest and southeast. Agricultural activity was shown to the northwest and south. A solar array was shown to the northeast. Most of the surrounding area was shown to be undeveloped. A copy of this aerial photograph can be seen as Figure C-7 in Appendix C.

USGS Map Analysis The 7.5 Minute Series United States Geological Survey Topographic Map for the area of the Subject Property is named the Neenach School, California map. The map, which was laid out in 1965, showed no structures the Subject Property or on the adjoining properties. A small structure and a second item were shown to the south. Unnamed creeks were shown to the northwest and southeast. Structures labeled Snyder Ranch were shown to the west; and structures labeled Gorrindo Ranch were shown to the north. A water well was shown to the northeast. An orchard was shown to the south. The map was photorevised (updated based on a review of aerial photographs) in 1975. The revised map showed no newer structures on the Subject Property or on any of the adjoining properties. A newer small structure was shown to the south (newer structures are shown in a purple tint on the revised map). A newer structure was shown at the northeast corner of West Avenue D and 230th Street. The newer California Aqueduct was shown to the southwest. Smaller structures were shown to the northeast and south. A copy of a portion of the 1976 Neenach School, California map can be seen as Figure B-1 in Appendix B.

The 2015 Neenach School, California map did not show any structures. Unnamed creeks were shown to the northwest and southeast. West Avenue D/State Route 138 was shown to the south. The Governor Edmund G. Brown East Branch California Aqueduct was shown to the southwest. A portion of the 2015 Neenach School, California USGS Map is reproduced as Figure B-2 in Appendix B.

4 RECORDS SEARCH

4.1 Regulatory Agencies Database Search

The following Federal, State of California, Tribal and local government agency databases and sources were searched for postings within designated radii of the Subject Property:

FEDERAL SOURCES

- National Priority List (NPL) Within 1.0 Mile
- Proposed National Priority List (PNPL) Within 1.0 Mile
- Superfund Enterprise Management System (SEMS) Within 0.50 Miles
- Federal Facility (Fed Fac) Within 0.50 Miles
- SEMS Archived Sites (SEMS-Archive) Within 0.50 Miles
- RCRA Corrective Action (CORRACTS) Within 1.0 Mile
- RCRA Treatment Storage and Disposal Facilities (RCRA-TSDF) Within 0.50 Miles
- RCRA Hazardous Waste Generator (RCRA-LQG; RCRA-SQG; RCRA-CESQG) Within 0.25 Miles
- Federal EPA Institutional Controls/ Engineering Controls (US Inst Control/US Eng Control) Within 0.50 Miles
- Emergency Response Notification System for Spills (ERNS), Target Property Only
- US Brownfields Within 0.50 Miles

STATE OF CALIFORNIA AND LOCAL GOVERERNMENT SOURCES

- Response Within 1.0 Mile
- EnviroStor Within 1.0 Mile

- California/Tribal Landfills and/or Solid Waste (SWF/LF) Within 0.50 Miles
- California/Tribal Cleanup Program Site-Spills, Leaks, Investigations and Cleanups (CPS-SLIC) Within 0.50 Miles
- California/Tribal Leaking Underground Storage Tanks (LUST) Within 0.50 Miles
- California/Tribal Hazardous Substance Storage Containers (UST/AST) Within 0.25 Miles
- California/Tribal EPA Voluntary Cleanup Program (VCP) Within 0.50 Miles
- Local Landfill and Solid Waste Disposal Sites (Debris Region 9, ODI, WMUDS/SWAT, SWRCY) Within 0.50 Miles
- Local Hazardous Waste and Contaminated Sites (US CDL, Historic Cal-Sites, SCH, Toxic Pts, CDL, US Historic CDL) Within Various Radii
- Local Underground Storage Tanks (CA FID UST, Historic UST, SWEEPS UST) Within 0.25 Miles
- Environmental Liens (LIENS) for Subject Property Only
- Deed Restricted Sites (DEED) Within 0.50 Miles
- Emergency Release Reports (HMIRS, CHMIRS, LDS, MCS) for Subject Property Only

The environmental database report is included in Appendix D.

SUBJECT PROPERTY The Subject Property is not posted onto any of the databases.

ADJOINING PROPERTY POSTINGS None of the adjoining properties is posted onto databases.

NEARBY PROPERTY POSTINGS No sites within 0.125 miles of the Subject Property are posted onto databases.

OTHER PROPERTIES Given the fact that the Subject Property is located in an area of mostly undeveloped high desert land, it is to be expected that few, or in this case, no sites would be posted onto the databases. There is no known regional groundwater impact in the area.

4.1.2 State of California Geologic Energy Management Division (CalGEM)

The State of California Department of Conservation Division of Geologic Energy Management (CalGEM) maintains maps that show the exact location of oil wells located in the state. The DOGGR Well Finder online mapping service was searched for oil or gas wells in the area. The

map showed no oil or gas wells on, near or within one mile of the Subject Property. A plugged "Dry Hole" oil well was shown more than one mile to the north.

4.1.3 State of California Department of Toxic Substance Control (DTSC)

The State of California Department of Toxic Substance Control (DTSC) is the agency that tracks sites on which there have been placed deed restrictions and land use restrictions. The DTSC web site for deed restricted sites and for land use restriction sites was searched. Neither the Subject Property nor any of the adjoining properties were included on these lists.

4.2 Regional Source

4.2.1 Regional Water Quality Control Board

The Regional Water Quality Control Board, Lahontan Region (LRWQCB), maintains a list of sites with leaking underground storage tanks (LUST) and sites on which there have been spills, leaks, investigations and cleanups (SLIC). The LRWQCB web site's GeoTracker database was searched. The Subject Property was not found on the LUST list or the SLIC list.

4.3 County Sources

4.3.1 Los Angeles County Building & Safety Division

The Building & Safety Division of the Los Angeles County Department of Public Works records are sought as part of an ESA to determine the age of ay buildings and to obtain additional information of environmental significance. The LACDPW's Building Permit Viewer online database was searched for records for the Subject Property address and assessor's parcel number. No records were found.

4.3.2 Los Angeles County Underground Storage Tank Program

The Los Angeles County Department of Public Works Underground Storage Tank Program's online database was searched for the Subject Property address. No records were found.

4.3.2 Los Angeles County Fire Department

The Los Angeles County Fire Department is the Certified Unified Program Agency (CUPA) for unincorporated areas of the county. The LACFD conducts inspections of facilities that use or store flammable and/or hazardous materials. The LACFD's Health Hazardous Materials/CUPA online databases for Site Mitigation, Active Facilities and Inactive Facilities were searched for the Subject Property address. No records were found.

5 SUBJECT PROPERTY INSPECTION

The Subject Property was inspected on July 14, 2022 by Chris Hayden, EP. The purpose of the site visit is to seek out and to report on visible environmental concerns, or to note use and storage of hazardous materials which could affect the environment condition of the Subject Property.

5.1 Use and Storage of Hazardous Materials at the Subject Property

The Subject Property consists of undeveloped pasture land. On the day of the inspection, no use or storage of hazardous materials were observed, as can be seen in Photographs 1 - 10 in Appendix C. Stables were observed in the northwest corner of the Subject Property, as can be seen in Photographs 2 and 3.

5.2 Indications of PCBs

There is no indication that polychlorinated biphenyls (PCBs) were used or stored at the Subject Property. No transformers were observed on the Subject Property. A pole-mounted transformer was shown across 230th Street, to the southwest of the Subject Property. This and other transformers in the area would be the property of Southern California Edison.

5.3 Indications of Solid Waste Disposal

Solid wastes are not currently generated on the Subject Property. Solid wastes generated in the city are placed into containers that are provided and serviced by private vendors.

5.4 Indications of Hazardous Waste Disposal

Hazardous waste accumulation was not observed on the Subject Property on the day of the inspection. No documentation was found to indicate that hazardous wastes have been generated on the site in the past.

5.5 Indications of Asbestos Containing Materials (ACMs)

There are no structures on the Subject Property.

5.6 Indications of Vapor Intrusion/Vapor Encroachment

Impacted soil or groundwater on a site may result in vapor intrusion; and impacted groundwater migrating towards a site may result in vapor encroachment. There is no indication that the soil or groundwater on the Subject Property has been impacted. There are no LUST or SLIC sites shown to be within 0.50 miles of the Subject Property. Therefore, it is unlikely that vapor intrusion or vapor encroachment would be of concern for the Subject Property.

6 INTERVIEW

An important part of any Phase 1 is an interview with individuals having knowledge of the facilities and the operations at the property being assessed. For this ESA, there were no operations of the Subject Property. An effort was made to contact the current owner of the Subject Property, Amilcar Badano. Also, there was nobody at the residence on the day of the inspection.

7 FINDINGS AND CONCLUSIONS

Prior to arriving at these conclusions, the following tasks were completed:

- The Subject Property was inspected.
- The surrounding properties were observed.
- Historic aerial photographs were obtained and examined.
- Information was requested from various governmental and regulatory agencies for environmental information pertaining to the Subject Property.
- The databases from local, tribal, state and federal regulatory agencies were examined.

Findings included the following:

- The 1952 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production.
- The aerial photographs in 1963 and 1974 showed the Subject Property to be undeveloped, with no evidence of activity observed.
- The 1994 aerial photograph showed the Subject Property to be undeveloped and possibly in agricultural production. What may have been a mobile home was observed in the southwest corner of the parcel on which the Subject Property is located.
- The aerial photographs taken from 2005 to 2018 showed the Subject Property to be undeveloped and possibly used as pasture land. Observed in the southwestern corner of the parcel of which the Subject Property was a part were a residence, a garage, stables and corrals.
- The Subject Property is not posted onto any the environmental databases searched in Section 4.1.
- No use or storage of hazardous materials were observed on the Subject Property on the day of the inspection.

HEI Corporation has performed a Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-21 (and Final Rule 40 CFR Part 312 et seq.) on undeveloped pasture land at 49560 230th Street in the unincorporated area of North Antelope Valley to the northwest of the City Lancaster in Los Angeles County, California. Any exceptions to, or deletions from, this practice are discussed in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Subject Property. No further action is required.

APPENDIX A

LIMITATIONS

LIMITATIONS

The services described in this report were performed consistent with generally accepted consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with the Client. This report is solely for the use and information of the Client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

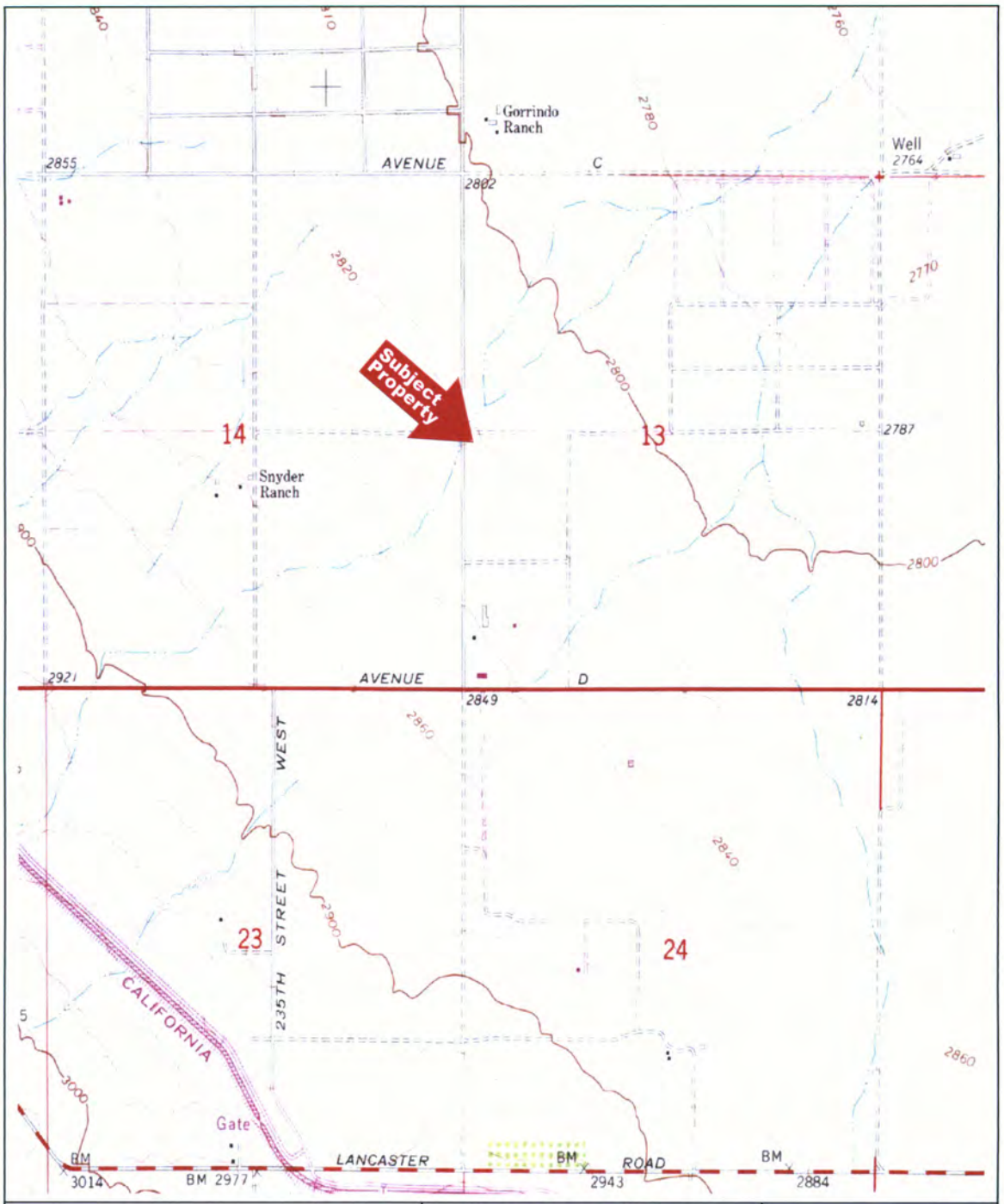
Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the Client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to the performance of services. We do not warrant the accuracy of information supplied by others.

The purpose of an environmental assessment is to reasonable evaluate the potential for or actual impact of past and current practices on the Subject Property. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an exhaustive analysis of each conceivable issue of potential concern. The following paragraph discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to exclude the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such materials on the site, but rather as the services performed within the scope, limitations, and cost of the work performed. Environmental conditions may exist on the Subject Property that cannot be identified by visual observation.

APPENDIX B

1975 AND 2015 USGS MAPS / ASSESSOR'S PARCEL MAP / RENEWABLE PROPERTIES PRELIMINARY ARRAY LOCATION



Hayden Environmental	1975 USGS 7.5 Minute Topographic Map Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: B-1

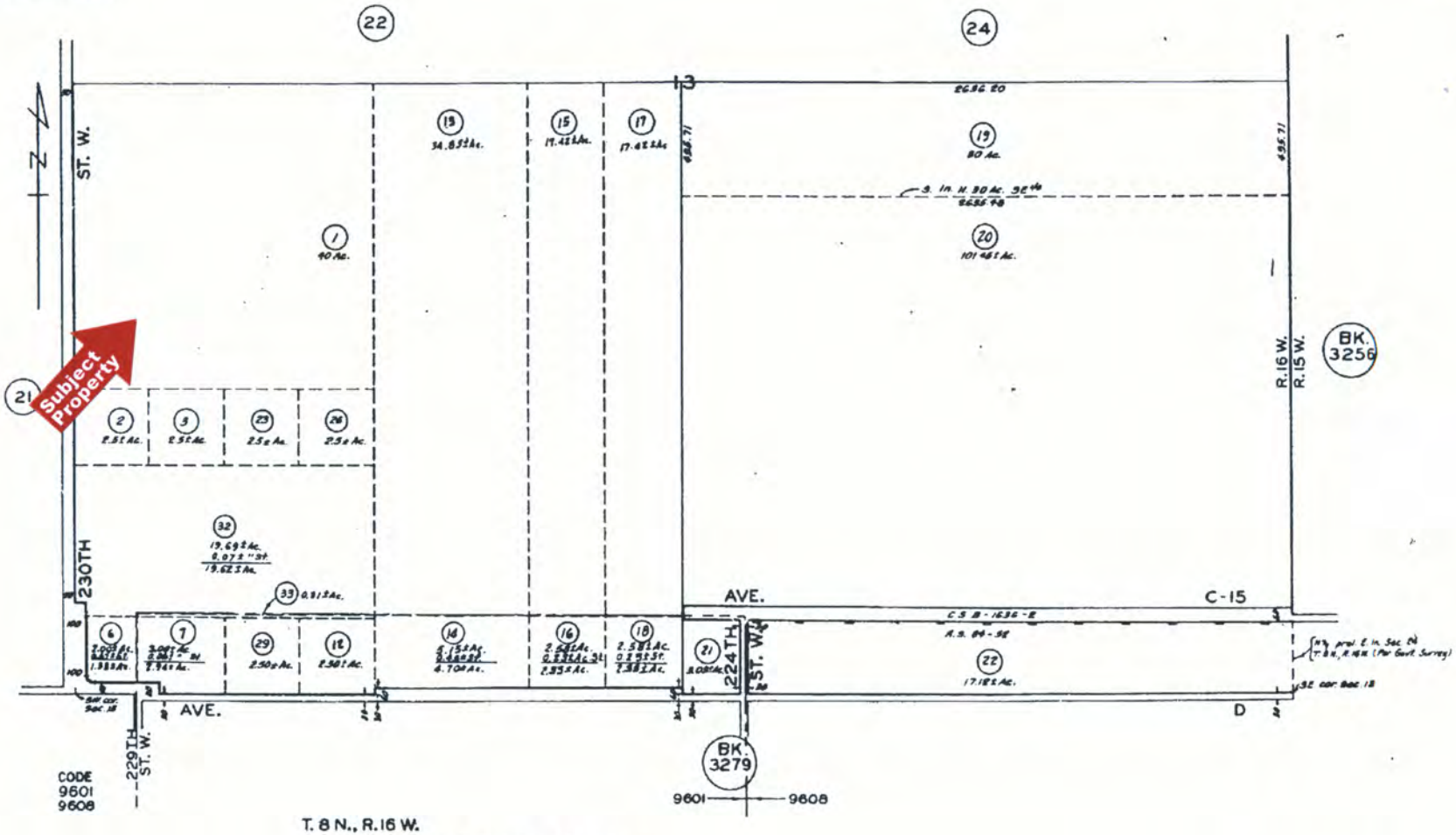


Hayden Environmental	2015 USGS 7.5 Minute Topographic Map Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: B-2

1-800-345-7334

3278 | 25

SCALE 1" = 400'



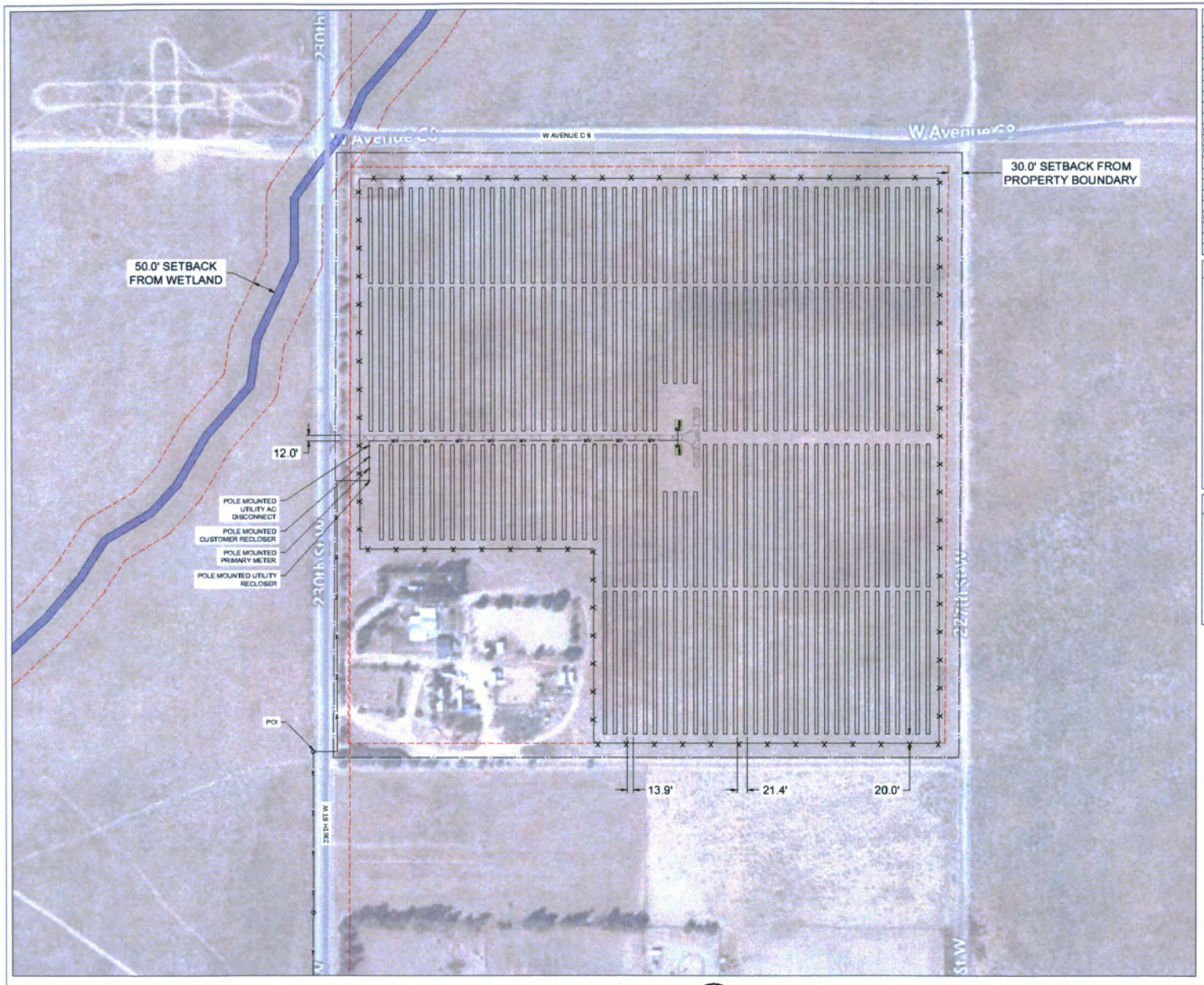
T. 8 N., R. 16 W.

PROPERTY OF MOLLIE A. SILVEY

M. R. 72-67-68

FOR PREV. ASSM'T SEE:
3255 - 3 & 12

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.



1 ARRAY LOCATION
SCALE:1"=100'

N

SYSTEM SPECIFICATIONS	
SYSTEM SIZE DC	7,494.12 kW
SYSTEM SIZE AC	5,000.00 kW
DC/AC RATIO	1.50
MODULE MANUFACTURER	ASTRONERGY
MODULE MODEL	CHSM72M(DG)/F-BH
MODULE RATING	540 W
TOTAL MODULE QTY	13,878
MODULES PER STRING	27
TOTAL NO. OF STRINGS	514
INVERTER MODEL	SUNGROW SG125HV
INVERTER RATING	125 kW
INVERTER QTY	40
STEP-UP TRANSFORMER	G)12kV/500V, 2500kVA
RACKING	ATI HSAT
# OF 81 MODULE RACKS	114
# OF 54 MODULE RACKS	86
TILT ANGLE	0°
INTER-ROW SPACING	13.9'
PITCH	21.4'
GCR	35%
SITE AREA INSIDE FENCE	29.23 Ac

LEGEND

- ATI 81 MODULE TRACKER ROW
- ATI 54 MODULE TRACKER ROW
- POWER STATION - (1) MV TRANSFORMER, (1) DAS, (1) WEATHER STATION
- SUNGROW 125kW STRING INVERTER
- 12' WIDE SITE ACCESS GRAVEL ROAD
- WETLANDS
- (E) PUBLIC ROAD
- PROPERTY LINE
- PROJECT SITE SECURITY FENCE
- SETBACK
- (E) OH LINES
- MV CABLE

GENERAL NOTES

1. REFER TO SINGLE LINE DIAGRAM FOR DETAILS.
2. INSTALLATION TO COMPLY WITH NEC 2020 ARTICLE 690 AND ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES OR REGULATIONS
3. EQUIPMENT SHALL BE LABELED PER NEC 690 AND UTILITY REGULATIONS
4. 12' ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, OPERATIONS, MAINTENANCE, AND UTILITY TRAFFIC THROUGHOUT THE SITE.
5. DIMENSIONS TO PROPERTY LINES AND EXISTING FEATURES ARE APPROXIMATE PENDING SURVEY.

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS

0	PRELIM LAYOUT	05/06/22

RENEWABLE PROPERTIES
870 SANCHEZ STREET,
SAN FRANCISCO, CA 94114
PHONE (530) 518-7669
WWW.RENEWPROP.COM

SEDA
SEQUOIA ENGINEERING & DESIGN ASSOCIATES
575 LENNON LANE, SUITE 145
WALNUT CREEK, CA 94598
PHONE (925) 891-4183
FAX (925) 954-1220
WWW.SEQUOIA-ENGINEERING.COM

PROJECT

230TH STREET SOLAR
230TH ST W,
LANCASTER,
CA 93536
LAT: 34.780632°
LON: -118.533032°

SHEET TITLE

SITE PLAN

SCALE: AS SHOWN
DRAWN BY:
DATE: 05/06/22

PV-100

SHEET 1 OF 2

THIS DRAWING AND ITS CONTENTS ARE THE PROPERTY OF SEQUOIA ENGINEERING AND DESIGN ASSOCIATES AND MAY NOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

APPENDIX C

SUBJECT PROPERTY PHOTOGRAPHS
1952, 1963, 1974, 1994, 2005, 2012 AND 2018 AERIAL PHOTOGRAPHS

PHOTOGRAPHS



1. View of the Southwestern Portion of the Subject Property Looking Northeast Showing the Point of Interconnection to the Electrical Grid



2. View of the Northwestern Portion of the Subject Property Looking Southeast Showing the Stables in the Northwest Corner of the Parcel



3. View of the Northwestern Portion of the Subject Property Looking Southwest Showing the Stables in the Northwest Corner of the Parcel



4. View of the Northeastern Portion of the Subject Property Looking Southwest



5. View of the Northeastern Portion of the Subject Property Looking Northwest Showing Solar Arrays to the North



6. View of the Southeastern Portion of the Subject Property Looking Northwest



7. View of the Southeastern Portion of the Subject Property Looking Northeast



8. View of the Southwestern Portion of the Subject Property Looking Northeast



9. View of the Southern Portion of the Subject Property Looking Southeast



10. View of the South-Central Portion of the Subject Property Looking Northwest



Hayden Environmental	1952 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-1



Hayden Environmental	1963 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-2



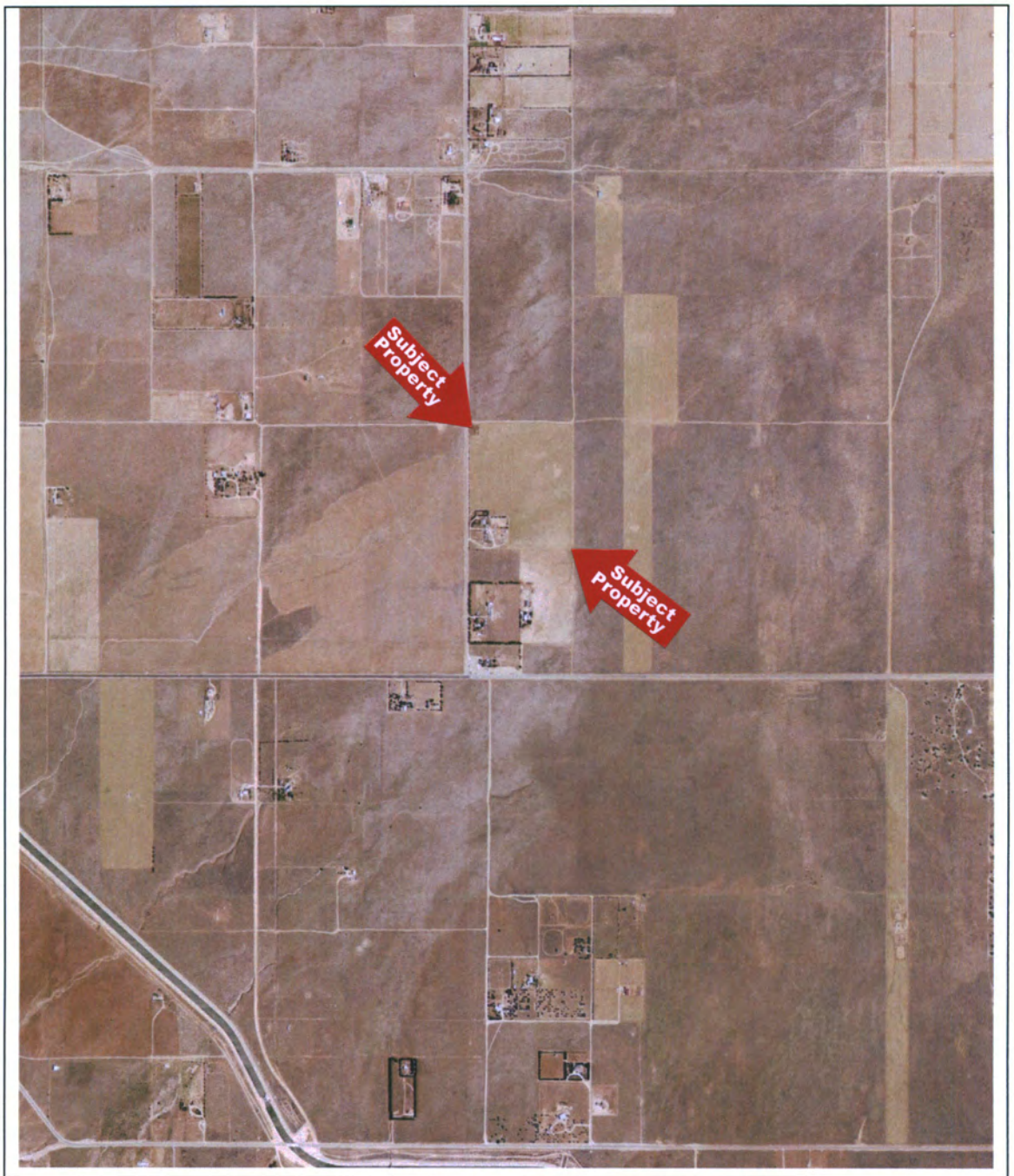
Hayden Environmental	1974 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-3



Hayden Environmental	1994 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-4



Hayden Environmental	2005 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-5



Hayden Environmental	2012 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-6



Hayden Environmental	2018 AERIAL PHOTOGRAPH Subject Property: 230th Street Solar Project; North Antelope Valley, California	↑ **NORTH**
JOB NUMBER: 22-5774	Date: 7/26/22	FIGURE: C-7

APPENDIX D

REGULATORY AGENCIES DATABASE REPORT

230th Street Solar Poject
49560 230th Street
Lancaster, CA 93536

Inquiry Number: 07056001.10r
July 18, 2022

FirstSearch Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Search Summary Report

TARGET SITE **49560 230TH STREET**
LANCASTER, CA 93536

Category	Sel	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	Y	0	0	0	0	0	0	0
NPL Delisted	Y	0	0	0	0	0	0	0
CERCLIS	Y	0	0	0	0	-	0	0
NFRAP	Y	0	0	0	0	-	0	0
RCRA COR ACT	Y	0	0	0	0	0	0	0
RCRA TSD	Y	0	0	0	0	-	0	0
RCRA GEN	Y	0	0	0	-	-	0	0
Federal IC / EC	Y	0	0	0	0	-	0	0
ERNS	Y	0	-	-	-	-	0	0
State/Tribal NPL	Y	0	0	0	0	0	0	0
State/Tribal CERCLIS	Y	0	0	0	0	0	0	0
State/Tribal SWL	Y	0	0	0	0	-	0	0
State/Tribal LTANKS	Y	0	0	0	0	-	0	0
State/Tribal Tanks	Y	0	-	-	-	-	0	0
State/Tribal VCP	Y	0	0	0	0	-	0	0
US Brownfields	Y	0	0	0	0	-	0	0
Other SWF	Y	0	0	0	0	-	0	0
Other Haz Sites	Y	0	0	0	-	-	0	0
Other Tanks	Y	0	0	0	-	-	0	0
Local Land Records	Y	0	0	0	0	-	0	0
Spills	Y	0	-	-	-	-	0	0
Other	Y	0	0	-	-	-	0	0
	- Totals --	0	0	0	0	0	0	0

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Search Summary Report

TARGET SITE: **49560 230TH STREET**
LANCASTER, CA 93536

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	NPL	04/27/2022	1.000	0	0	0	0	0	0	0
	Proposed NPL	04/27/2022	1.000	0	0	0	0	0	0	0
NPL Delisted	Delisted NPL	04/27/2022	1.000	0	0	0	0	0	0	0
CERCLIS	SEMS	04/27/2022	0.500	0	0	0	0	-	0	0
NFRAP	SEMS-ARCHIVE	04/27/2022	0.500	0	0	0	0	-	0	0
RCRA COR ACT	CORRACTS	06/20/2022	1.000	0	0	0	0	0	0	0
RCRA TSD	RCRA-TSDF	06/20/2022	0.500	0	0	0	0	-	0	0
RCRA GEN	RCRA-LQG	06/20/2022	0.250	0	0	0	-	-	0	0
	RCRA-SQG	06/20/2022	0.250	0	0	0	-	-	0	0
	RCRA-VSQG	06/20/2022	0.250	0	0	0	-	-	0	0
Federal IC / EC	US ENG CONTROLS	02/21/2022	0.500	0	0	0	0	-	0	0
	US INST CONTROLS	02/21/2022	0.500	0	0	0	0	-	0	0
ERNS	ERNS	06/14/2022	TP	0	-	-	-	-	0	0
State/Tribal NPL	RESPONSE	04/25/2022	1.000	0	0	0	0	0	0	0
State/Tribal CERCLIS	ENVIROSTOR	04/25/2022	1.000	0	0	0	0	0	0	0
State/Tribal SWL	SWF/LF	02/07/2022	0.500	0	0	0	0	-	0	0
State/Tribal LTANKS	LUST	05/23/2022	0.500	0	0	0	0	-	0	0
	INDIAN LUST	04/28/2021	0.500	0	0	0	0	-	0	0
	CPS-SLIC	05/23/2022	0.500	0	0	0	0	-	0	0
State/Tribal Tanks	UST	03/07/2022	TP	0	-	-	-	-	0	0
	AST	07/06/2016	TP	0	-	-	-	-	0	0
	INDIAN UST	10/14/2021	0.250	0	0	0	-	-	0	0
State/Tribal VCP	VCP	04/25/2022	0.500	0	0	0	0	-	0	0
US Brownfields	US BROWNFIELDS	02/23/2022	0.500	0	0	0	0	-	0	0

Search Summary Report

TARGET SITE: **49560 230TH STREET**
LANCASTER, CA 93536

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
Other SWF	WMUDS/SWAT	04/01/2000	0.500	0	0	0	0	-	0	0
Other Haz Sites	SCH	04/25/2022	0.250	0	0	0	-	-	0	0
	US CDL	02/22/2022	TP	0	-	-	-	-	0	0
Other Tanks	SWEEPS UST	06/01/1994	0.250	0	0	0	-	-	0	0
Local Land Records	DEED	02/28/2022	0.500	0	0	0	0	-	0	0
Spills	HMIRS	03/21/2022	TP	0	-	-	-	-	0	0
	CHMIRS	04/03/2022	TP	0	-	-	-	-	0	0
Other	RCRA NonGen / NLR	06/20/2022	0.125	0	0	-	-	-	0	0
	TSCA	12/31/2016	TP	0	-	-	-	-	0	0
	TRIS	12/31/2018	TP	0	-	-	-	-	0	0
	SSTS	01/19/2022	TP	0	-	-	-	-	0	0
	RAATS	04/17/1995	TP	0	-	-	-	-	0	0
	PRP	01/25/2022	TP	0	-	-	-	-	0	0
	PADS	01/20/2022	TP	0	-	-	-	-	0	0
	ICIS	11/18/2016	TP	0	-	-	-	-	0	0
	FTTS	04/09/2009	TP	0	-	-	-	-	0	0
	MLTS	03/11/2022	TP	0	-	-	-	-	0	0
	RADINFO	07/01/2019	TP	0	-	-	-	-	0	0
	INDIAN RESERV	12/31/2014	1.000	0	0	0	0	0	0	0
	LEAD SMELTERS	04/27/2022	TP	0	-	-	-	-	0	0
	US AIRS	10/12/2016	TP	0	-	-	-	-	0	0
	FINDS	05/13/2022	TP	0	-	-	-	-	0	0
	CUPA Listings		0.125	0	0	-	-	-	0	0
	HAZNET	12/31/2019	TP	0	-	-	-	-	0	0
	LA Co. Site Mitigation	05/26/2021	TP	0	-	-	-	-	0	0
	UIC GEO	05/23/2022	TP	0	-	-	-	-	0	0
	WDS	06/19/2007	TP	0	-	-	-	-	0	0
	MILITARY PRIV SITES	05/23/2022	TP	0	-	-	-	-	0	0
	PROJECT	05/23/2022	TP	0	-	-	-	-	0	0
	CIWQS	02/28/2022	TP	0	-	-	-	-	0	0
	NON-CASE INFO	05/23/2022	TP	0	-	-	-	-	0	0
	OTHER OIL GAS	05/23/2022	TP	0	-	-	-	-	0	0
	PROD WATER PONDS	05/23/2022	TP	0	-	-	-	-	0	0
	SAMPLING POINT	05/23/2022	TP	0	-	-	-	-	0	0
	WELL STIM PROJ	05/23/2022	TP	0	-	-	-	-	0	0
	- Totals --			0	0	0	0	0	0	0

Site Information Report

Request Date: JULY 18, 2022
Search Type: COORD
Request Name: CHRIS HAYDEN
Job Number: NA

Target Site: 49560 230TH STREET
LANCASTER, CA 93536

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	118.536652	118.5366520 - 118ˆ 32’ 11.94’’	Easting:	359394.6
Latitude:	34.780067	34.7800670 - 34ˆ 46’ 48.24’’	Northing:	3849532.5
Elevation:	2830 ft. above sea level		Zone:	Zone 11

Demographics

Sites: 0 **Non-Geocoded:** 0 **Population:** N/A

RADON

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 93536

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.600 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

Site Information Report

RADON

State Database: CA Radon

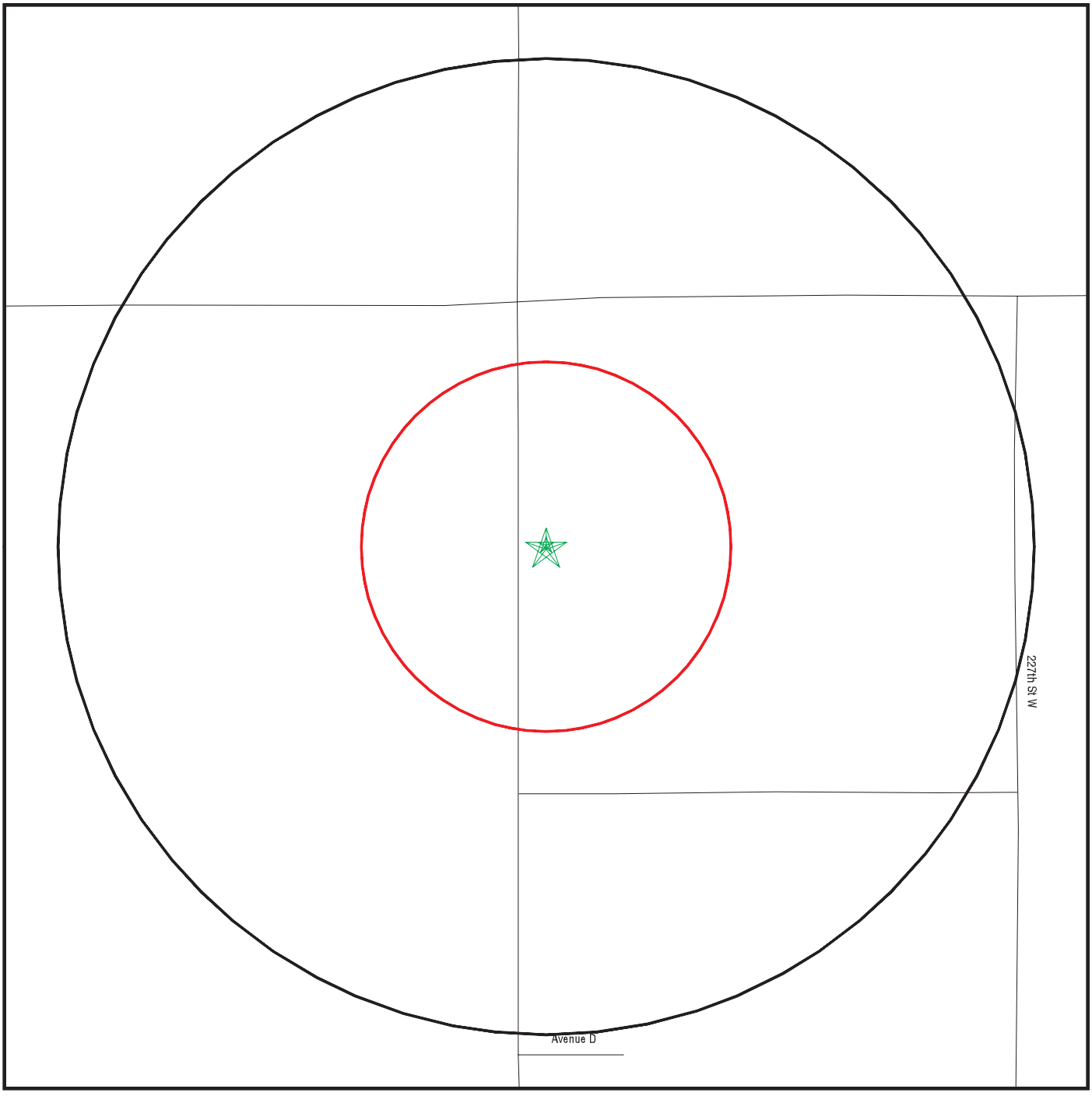
Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93536	32	1

Environmental FirstSearch

0.25 Mile Radius
Non ASTM Map, Spills, FINDS

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 34.780067 Longitude: 118.536652)

▲ Identified Sites

Sensitive Receptors

National Priority List Sites

Indian Reservations BIA

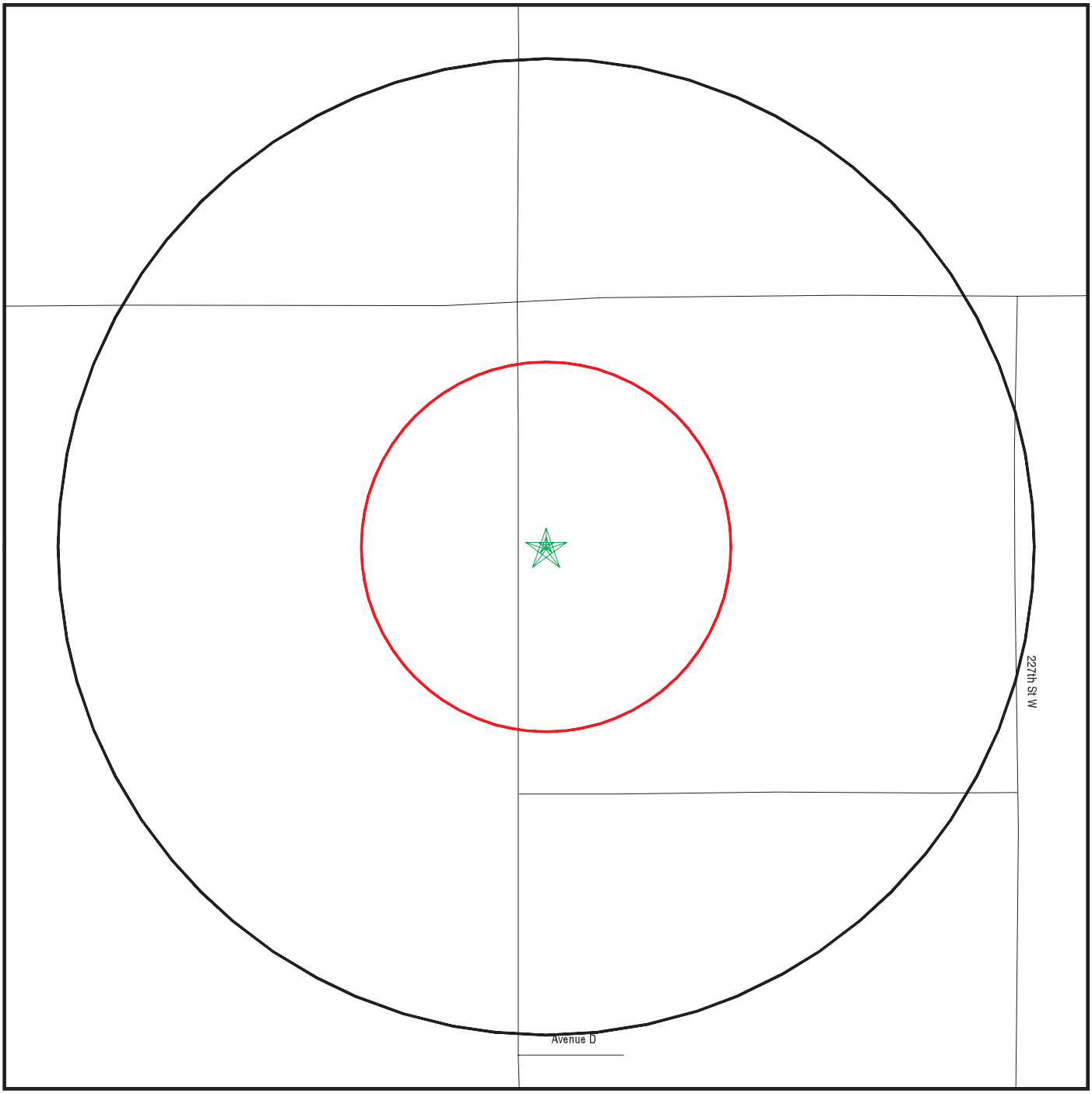
EDR Reference Code (EDR Internal use only): 07056001.10r
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.
22-07-18.12:44:45.Mon

Environmental FirstSearch

0.25 Mile Radius

ASTM MAP: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 34.780067 Longitude: 118.536652)

▲ Identified Sites

National Priority List Sites

Indian Reservations BIA

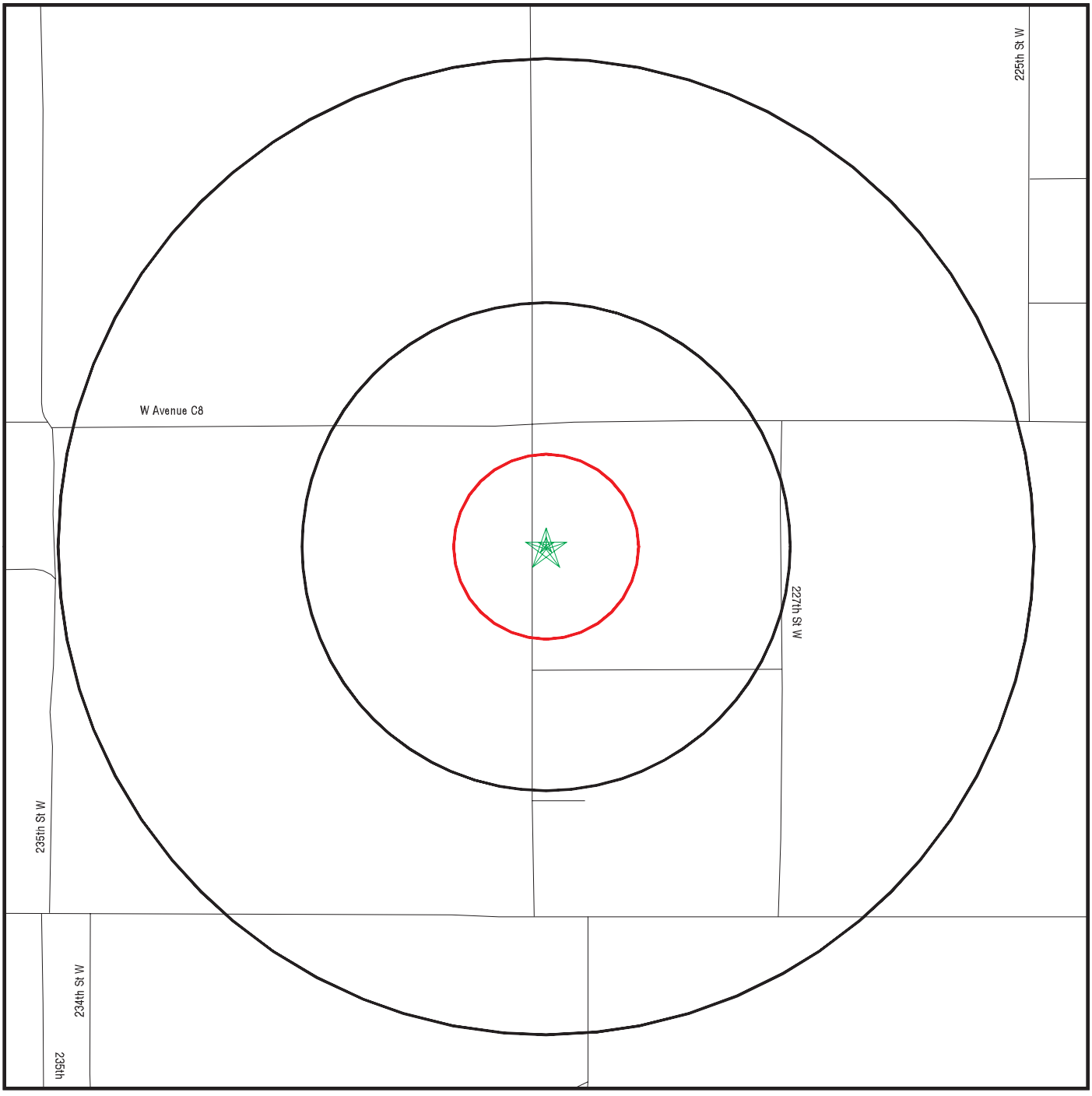
EDR Reference Code (EDR Internal use only): 07056001.10r
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.
22-07-18.12:43:27.Mon

Environmental FirstSearch

0.500 Mile Radius

ASTM MAP: CERCLIS, RCRATSD, LUST, SWL

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; **Red Ring Represents 500 ft. Radius**

★ **Target Property (Latitude: 34.780067 Longitude: 118.536652)**

▲ **Identified Sites**

National Priority List Sites

Indian Reservations BIA

EDR Reference Code (EDR Internal use only): 07056001.10r

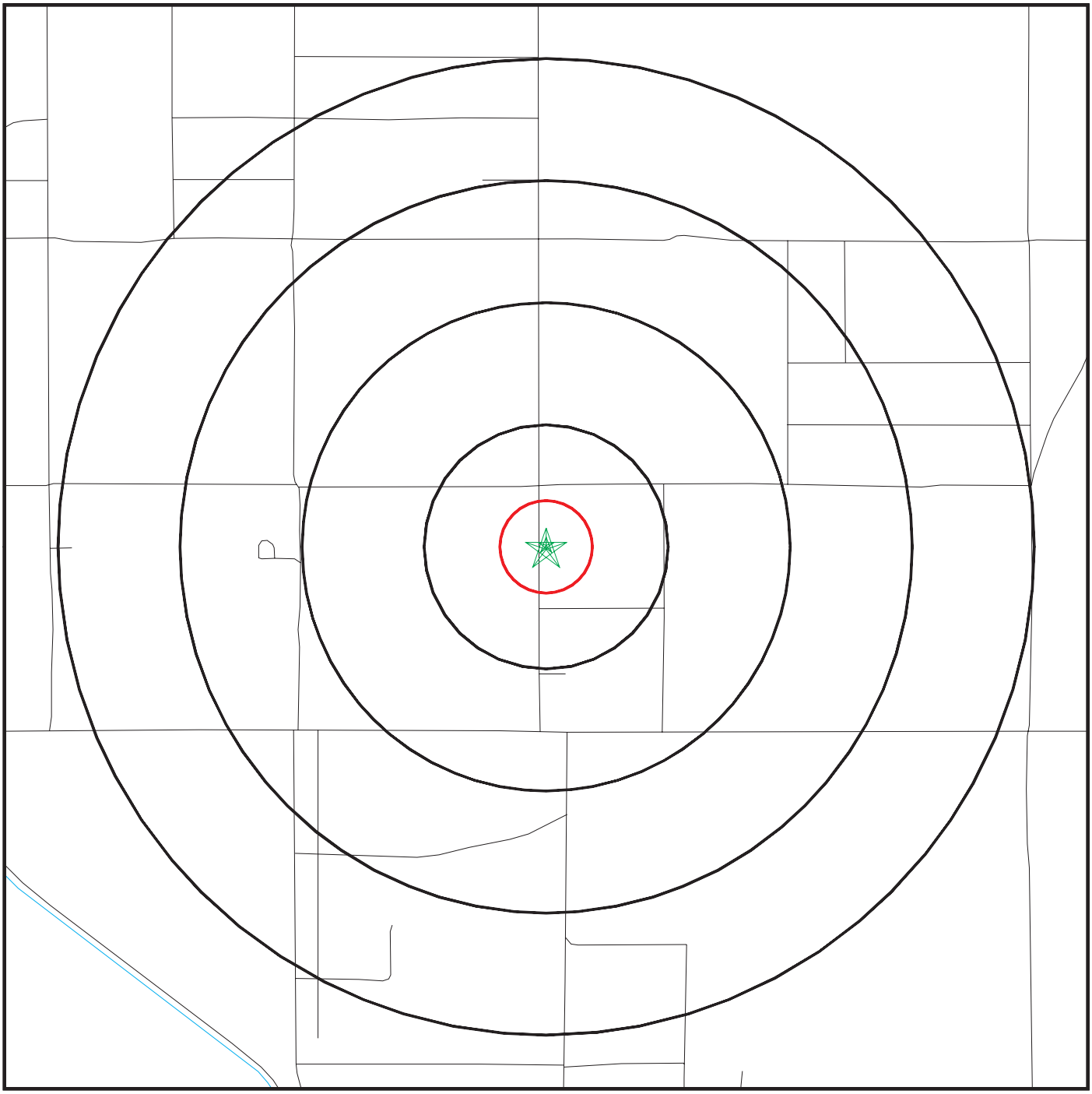
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.

22-07-18.12:42:15.Mon

Environmental FirstSearch

1.000 Mile Radius
ASTM MAP: NPL, RCRACOR, STATES Sites

49560 230TH STREET LANCASTER, CA 93536



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 34.780067 Longitude: 118.536652)

▲ Identified Sites

National Priority List Sites

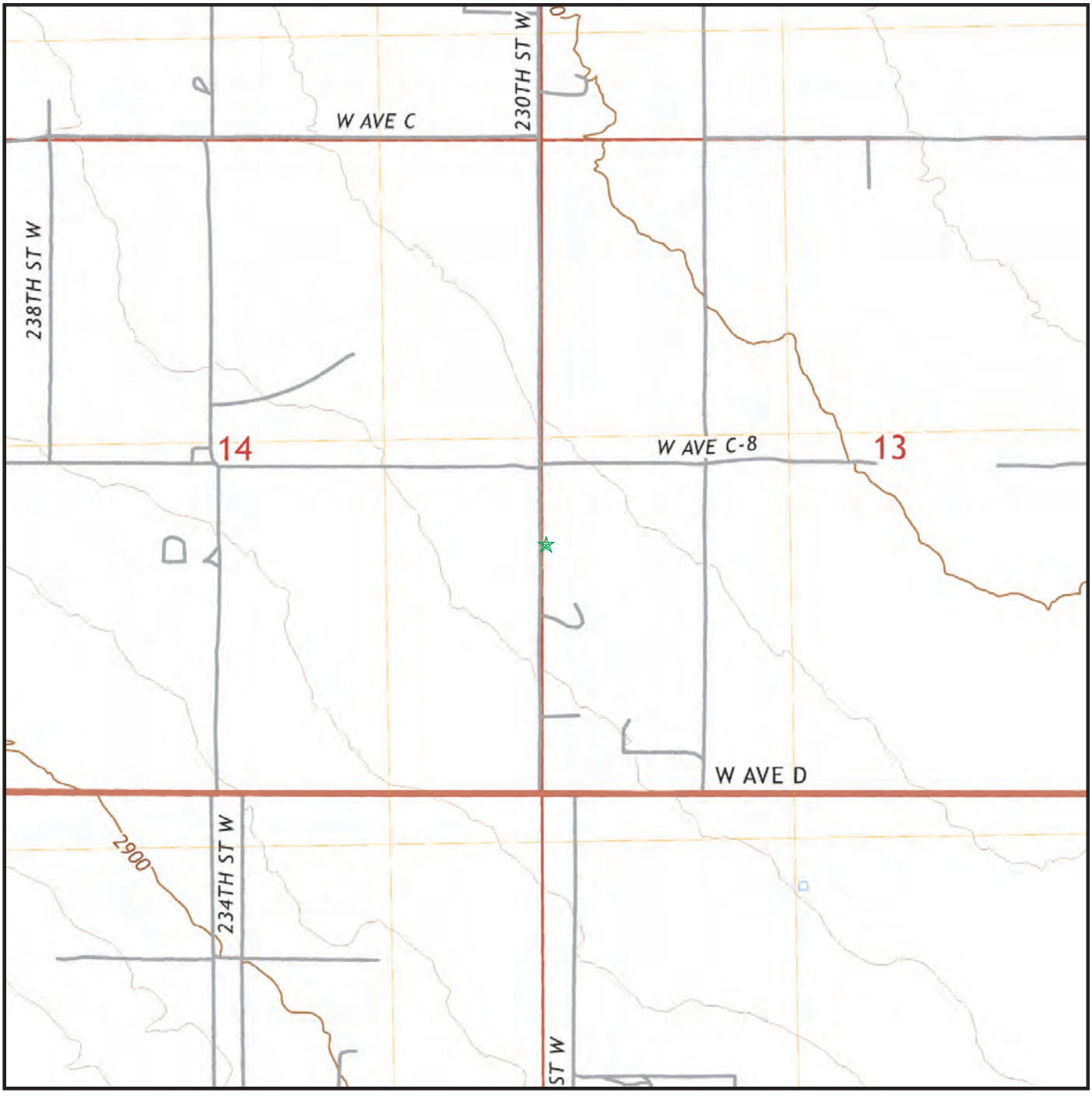
Indian Reservations BIA

EDR Reference Code (EDR internal use only): 07056001.10r
Copyright © 2022 EDR, Inc. © 2015 TomTom Rel. 2015.
22-07-18.12:41:22.Mon

Site location Map

Topo: 0.75 Mile Radius

49560 230TH STREET LANCASTER, CA 93536



Map Image Position: TP
Map Reference Code & Name: 11994282 Neenach School
Map State(s): CA
Version Date: 2018

Target Site Summary Report

Target Property: 49560 230TH STREET
LANCASTER, CA 93536

JOB: NA

TOTAL: 0 GEOCODED: 0 NON GEOCODED: 0

Map ID	DB Type --ID/Status	Site Name	Address	Dist/Dir	ElevDiff	Page No.

No sites found for target address

NO SITES FOUND

Database Descriptions

NPL: NPL National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices. NPL - National Priority List Proposed NPL - Proposed National Priority List Sites.

NPL Delisted: Delisted NPL The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Delisted NPL - National Priority List Deletions

CERCLIS: SEMS SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL. SEMS - Superfund Enterprise Management System

NFRAP: SEMS-ARCHIVE SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site. SEMS-ARCHIVE - Superfund Enterprise Management System Archive

RCRA COR ACT: CORRACTS CORRACTS identifies hazardous waste handlers with RCRA corrective action activity. CORRACTS - Corrective Action Report

RCRA TSD: RCRA-TSDF RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste. RCRA-TSDF - RCRA - Treatment, Storage and Disposal

RCRA GEN: RCRA-LQG RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. RCRA-LQG - RCRA - Large Quantity Generators RCRA-SQG - RCRA - Small Quantity Generators. RCRA-VSQG - RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators).

Federal IC / EC: US ENG CONTROLS A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. US ENG CONTROLS - Engineering Controls Sites List US INST CONTROLS - Institutional Controls Sites List.

Database Descriptions

ERNS: ERNS Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances. ERNS - Emergency Response Notification System

State/Tribal NPL: RESPONSE Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. RESPONSE - State Response Sites

State/Tribal CERCLIS: ENVIROSTOR The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. ENVIROSTOR - EnviroStor Database

State/Tribal SWL: SWF/LF (SWIS) Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites. SWF/LF (SWIS) - Solid Waste Information System

State/Tribal LTANKS: SAN MATEO CO. LUST ORANGE CO. LUST - List of Underground Storage Tank Cleanups. LUST REG 5 - Leaking Underground Storage Tank Database. RIVERSIDE CO. LUST - Listing of Underground Tank Cleanup Sites. SOLANO CO. LUST - Leaking Underground Storage Tanks. LUST REG 8 - Leaking Underground Storage Tanks. VENTURA CO. LUST - Listing of Underground Tank Cleanup Sites. SAN FRANCISCO CO. LUST - Local Oversite Facilities. SONOMA CO. LUST - Leaking Underground Storage Tank Sites. NAPA CO. LUST - Sites With Reported Contamination. LUST REG 9 - Leaking Underground Storage Tank Report. LUST - Leaking Underground Fuel Tank Report (GEOTRACKER). LUST REG 4 - Underground Storage Tank Leak List. LUST REG 6L - Leaking Underground Storage Tank Case Listing. LUST SANTA CLARA - LOP Listing. LUST REG 6V - Leaking Underground Storage Tank Case Listing. LUST REG 7 - Leaking Underground Storage Tank Case Listing. LUST REG 1 - Active Toxic Site Investigation. SAN DIEGO CO. SAM - Environmental Case Listing. LUST REG 2 - Fuel Leak List. LUST REG 3 - Leaking Underground Storage Tank Database. Orange County Underground Storage Tank Cleanups (LUST). LUST REG 3 - List of Underground Storage Tank Cleanups INDIAN LUST R8 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R1 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R5 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R6 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R4 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R10 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R9 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R7 - Leaking Underground Storage Tanks on Indian Land. CPS-SLIC - Statewide SLIC Cases (GEOTRACKER). SLIC REG 1 - Active Toxic Site Investigations. SLIC REG 2 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 3 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 4 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 5 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 6V - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 6L - SLIC Sites. SLIC REG 7 - SLIC List. SLIC REG 8 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. Sacramento Co. CS - Toxic Site Clean-Up List. SLIC REG 9 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing.

State/Tribal Tanks: UST CLOSURE MILITARY UST SITES - Military UST Sites (GEOTRACKER). UST - Active UST Facilities. Active UST facilities gathered from the local regulatory agencies UST - Active UST Facilities AST - Aboveground Petroleum Storage Tank Facilities. INDIAN UST R4 - Underground Storage Tanks on Indian Land. INDIAN UST R10 - Underground Storage Tanks on Indian Land. INDIAN UST R1 - Underground Storage Tanks on Indian Land. INDIAN UST R6 - Underground Storage Tanks on Indian Land. INDIAN UST R5 - Underground Storage Tanks on Indian Land. INDIAN UST R8 - Underground Storage Tanks on Indian Land. INDIAN UST R9 - Underground Storage Tanks on Indian Land. INDIAN UST R7 - Underground Storage Tanks on Indian Land.

Database Descriptions

State/Tribal VCP: VCP Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs. VCP - Voluntary Cleanup Program Properties SAN FRANCISCO MAHER - Maher Ordinance Property Listing.

US Brownfields: US BROWNFIELDS Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs. US BROWNFIELDS - A Listing of Brownfields Sites

Other SWF: VENTURA CO. LF CA LA LF - City of Los Angeles Landfills. WMUDS/SWAT - Waste Management Unit Database. SAN DIEGO CO. LF - Solid Waste Facilities. LOS ANGELES CO. LF - List of Solid Waste Facilities. Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites. LOS ANGELES CO. LF - Inventory of Illegal Abandoned and Inactive Sites

Other Haz Sites: SCH This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose. SCH - School Property Evaluation Program SAN DIEGO CO. HMMD - Hazardous Materials Management Division Database. CERS HAZ WASTE - CERS HAZ WASTE. US CDL - Clandestine Drug Labs. PFAS - PFAS Contamination Site Location Listing. AQUEOUS FOAM - Former Fire Training Facility Assessments Listing.

Other Tanks: SWEEPS UST Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list. SWEEPS UST - SWEEPS UST Listing ALAMEDA CO. UST - Underground Tanks. KERN CO. UST - Underground Storage Tank Sites & Tank Listing. MARIN CO. UST - Underground Storage Tank Sites. NAPA CO. UST - Closed and Operating Underground Storage Tank Sites. ORANGE CO. UST - List of Underground Storage Tank Facilities. RIVERSIDE CO. UST - Underground Storage Tank Tank List. SAN FRANCISCO CO. UST - Underground Storage Tank Information. SOLANO CO. UST - Underground Storage Tanks. SUTTER CO. UST - Underground Storage Tanks. VENTURA CO. UST - Underground Tank Closed Sites List. LOS ANGELES UST - Active & Inactive UST Inventory. YOLO CO. UST - Underground Storage Tank Comprehensive Facility Report. EL SEGUNDO UST - City of El Segundo Underground Storage Tank. LONG BEACH UST - City of Long Beach Underground Storage Tank. UST MENDOCINO - Mendocino County UST Database. UST SAN JOAQUIN - San Joaquin Co. UST. TORRANCE UST - City of Torrance Underground Storage Tank. SAN FRANCISCO AST - Aboveground Storage Tank Site Listing. LOS ANGELES AST - Active & Inactive AST Inventory. CERS TANKS - California Environmental Reporting System (CERS) Tanks.

Local Land Records: DEED Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners. DEED - Deed Restriction Listing

Database Descriptions

Spills: HMIRS Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT. HMIRS - Hazardous Materials Information Reporting System CHMIRS - California Hazardous Material Incident Report System. Orange Co. Industrial Site - List of Industrial Site Cleanups.

Other: RCRA NonGen / NLR RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste. RCRA NonGen / NLR - RCRA - Non Generators / No Longer Regulated FEDLAND - Federal and Indian Lands. TSCA - Toxic Substances Control Act. TRIS - Toxic Chemical Release Inventory System. SSTS - Section 7 Tracking Systems. RAATS - RCRA Administrative Action Tracking System. PRP - Potentially Responsible Parties. PADS - PCB Activity Database System. ICIS - Integrated Compliance Information System. FTTS - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). FTTS INSP - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). MLTS - Material Licensing Tracking System. RADINFO - Radiation Information Database. BRS - Biennial Reporting System. INDIAN RESERV - Indian Reservations. LEAD SMELTER 1 - Lead Smelter Sites. LEAD SMELTER 2 - Lead Smelter Sites. US AIRS (AFS) - Aerometric Information Retrieval System Facility Subsystem (AFS). US AIRS MINOR - Air Facility System Data. FINDS - Facility Index System/Facility Registry System. CUPA - CUPA Resources List. CUPA AMADOR - CUPA Facility List. CUPA BUTTE - CUPA Facility Listing. CUPA CALVERAS - CUPA Facility Listing. CUPA COLUSA - CUPA Facility List. CUPA DEL NORTE - CUPA Facility List. CUPA EL DORADO - CUPA Facility List. CUPA FRESNO - CUPA Resources List. CUPA HUMBOLDT - CUPA Facility List. CUPA GLENN - CUPA Facility List. CUPA TULARE - CUPA Facility List. CUPA LIVERMORE-PLEASANTON - CUPA Facility Listing. CUPA SAN BENITO - CUPA Facility List. CUPA IMPERIAL - CUPA Facility List. CUPA TEHAMA - CUPA Facility List. CUPA PLUMAS - CUPA Facility List. CUPA LASSEN - CUPA Facility List. CUPA TRINITY - CUPA Facility List. CUPA STANISLAUS - CUPA Facility List. CUPA SAN FRANCISCO CO - CUPA Facility Listing. CUPA INYO - CUPA Facility List. CUPA KINGS - CUPA Facility List. CUPA LAKE - CUPA Facility List. CUPA MADERA - CUPA Facility List. CUPA MERCED - CUPA Facility List. CUPA MONO - CUPA Facility List. CUPA MONTEREY - CUPA Facility Listing. CUPA NEVADA - CUPA Facility List. CUPA SAN LUIS OBISPO - CUPA Facility List. CUPA SANTA BARBARA - CUPA Facility Listing. CUPA SANTA CLARA - Cupa Facility List. CUPA SANTA CRUZ - CUPA Facility List. CUPA SHASTA - CUPA Facility List. CUPA SONOMA - Cupa Facility List. CUPA TUOLUMNE - CUPA Facility List. CUPA YUBA - CUPA Facility List. KERN CO CUPA - CUPA Facility List. HAZNET - Facility and Manifest Data. Sacramento Co. ML - Master Hazardous Materials Facility List. San Bern. Co. Permit - Hazardous Material Permits. LA Co. Site Mitigation - Site Mitigation List. UIC GEO - Underground Injection Control Sites (GEOTRACKER). WDS - Waste Discharge System. MILITARY PRIV SITES - Military Privatized Sites (GEOTRACKER). PROJECT - Project Sites (GEOTRACKER). WDR - Waste Discharge Requirements Listing. SAN DIEGO CO LOP - Local Oversight Program Listing. CIWQS - California Integrated Water Quality System. CERS - CalEPA Regulated Site Portal Data. NON-CASE INFO - Non-Case Information Sites (GEOTRACKER). OTHER OIL GAS - Other Oil & Gas Projects Sites (GEOTRACKER). PROD WATER PONDS - Produced Water Ponds Sites (GEOTRACKER). SAMPLING POINT - Sampling Point ? Public Sites (GEOTRACKER). WELL STIM PROJ - Well Stimulation Project (GEOTRACKER). MINES MRDS - Mineral Resources Data System. PCS INACTIVE - Listing of Inactive PCS Permits. PCS - Permit Compliance System. HWTS - Hazardous Waste Tracking System. LOS ANGELES CO LF METHANE - Methane Producing Landfills. PCS ENF - Enforcement data.

Database Sources

NPL: EPA

Updated Quarterly

NPL Delisted: EPA

Updated Quarterly

CERCLIS: EPA

Updated Quarterly

NFRAP: EPA

Updated Quarterly

RCRA COR ACT: EPA

Updated Quarterly

RCRA TSD: Environmental Protection Agency

Updated Quarterly

RCRA GEN: Environmental Protection Agency

Updated Quarterly

Federal IC / EC: Environmental Protection Agency

Varies

ERNS: National Response Center, United States Coast Guard

Updated Quarterly

State/Tribal NPL: Department of Toxic Substances Control

Updated Quarterly

State/Tribal CERCLIS: Department of Toxic Substances Control

Updated Quarterly

State/Tribal SWL: Department of Resources Recycling and Recovery

Updated Quarterly

State/Tribal LTANKS: California Regional Water Quality Control Board Central Coast Region (3)

No Update Planned

Database Sources

State/Tribal Tanks: SWRCB

Updated Semi-Annually

State/Tribal VCP: Department of Toxic Substances Control

Updated Quarterly

US Brownfields: Environmental Protection Agency

Updated Semi-Annually

Other SWF: Environmental Health Division

No Update Planned

Other Haz Sites: Department of Toxic Substances Control

Updated Quarterly

Other Tanks: State Water Resources Control Board

No Update Planned

Local Land Records: DTSC and SWRCB

Updated Semi-Annually

Spills: U.S. Department of Transportation

Updated Quarterly

Other: Environmental Protection Agency

Updated Quarterly

Street Name Report for Streets near the Target Property

Target Property: 49560 230TH STREET
LANCASTER, CA 93536

JOB: NA

Street Name	Dist/Dir	Street Name	Dist/Dir
227th St W	0.24 East		
230th St W	0.01 West		
W Avenue C8	0.13 North		

APPENDIX E

STATEMENT OF QUALIFICATIONS FOR HEI CORPORATION

HEI CORPORATION

HEI Corporation was established in 1994 to respond to a need that exists in the environmental industry. There were many outstanding "full service" environmental firms in Southern California. Very few, however, specialized in performing Phase I Environmental Site Assessments (ESA's). For many firms, the ESA was and is approached as a way of positioning themselves to get any additional work recommended therein. This had led many to recognize the inherent conflict of interest that this represents. HEI Corporation eliminates this potential conflict in that no other environmental services are offered.

HEI Corporation, which also does business as Hayden Environmental, recognizes the importance of an ESA. The company was formed with the expressed purpose of providing the best, most complete, most thoroughly researched report available. At HEI Corporation, our fees are always competitive. Also, because we are not in the business of conducting Site Investigations (phase II's) there is no undue incentive to recommend them.

Our assessments are grounded in a solid understanding of the primary function of an ESA. Liability for environmental contamination can be expensive and time consuming in the extreme. While there is no guarantee that it will, an ESA is designed to allow a party coming into possession of real property, either as a tenant, buyer or lender forced to foreclose, to avail themselves of the "innocent landowner" defense. ESA's can also be a very valuable tool for an owner or tenant to establish a baseline condition of a property proper to the commencement of a lease.

Hayden Environmental has researched the law and adheres to the standards for environmental assessments promulgated by the ASTM Designation E 1527-13.

All Hayden Environmental Phase I assessments will include these five basic components:

- Subject property inspection and surrounding property observation
- Federal, state, tribal and local agency environmental database review
- County and /or municipal government record review
- Historical use review using aerial photographs, Sanborn maps and/or archive city directories
- Interviews with the current and former owners and occupants of the subject property

Hayden Environmental is fully insured, with policy coverage of $2,000,000 for Professional Liability and $1,000,000 for General Liability.

CHRISTOPHER M. HAYDEN

Chris Hayden, EP, has been in the environmental field since 1991. He began with a large multinational firm as the regional sales and marketing representative for Western U.S. He dealt primarily with firms in the energy, mining and real estate development fields. Seeking to broaden his "hands on" experience, he began working with a local firm in 1992. While there, he had the opportunity to work on a variety of projects, including environmental site assessments and site investigations. Seeing the need for a firm that specialized in conducting reliable, thorough and reasonably priced environmental site assessments while avoiding potential conflicts of interest, he formed Hayden Environmental in 1994. Hayden, through his years of experience, has earned the designation of Environmental Professional (EP) as defined in Section 40 C.F.R. §312.10(b).

Mr. Hayden also serves on the ASTM E50 Committee which reviews, revises and enforces the standards for environmental assessments currently promulgated by the ASTM Designation E 1527-13.

Prior to 1991 Hayden had been in the real estate industry for twelve years. He last worked as an industrial real estate broker with Grubb & Ellis in Newport Beach, CA.

Hayden has a Bachelor of Arts Degree in Biology from Humboldt State University in Arcata, California. He has taken several classes in the Environmental Site Investigation and Remediation Certificated program at the University of California at Irvine.

ENVIRONMENTAL COURSES/SEMINARS COMPLETED

40 Hour HazMat Health and Safety Training

ASTM Standards Technology Training in Phase I Site Assessments for Environxnental Professionals

Principles of Hazardous Materials Management

Regulatory Framework of Hazardous and Toxic Substances

Groundwater Hydrology: Monitoring, Protection and Clean-up

The Site Investigation and Remedial Feasibility Process

The Site Remediation Process for Hazardous Substance Impacts

Environmental Aspects of Souls Engineering and Geology

Innovative Soils Gas Monitoring and Remediation Applications

A Partial List of Clients Includes:

CLIENT	CLIENT
California Business Bank	First California Bank
American Business Bank	Comerica Bank
AmPac Business Capital	U. S. Trust Co.
Renewable Properties	First Citizens Bank
First Security Bank	Bank of the West
Pacific Enterprise Bank	PFF Bank & Trust
Community Bank	Southland EDC
Borrego Solar	Wells Fargo
California Bank & Trust	Investment Building Group (IBG)
Farmers & Merchants Trust	Messenger Investment Company
Spectrum Commercial Lending	Descansando Properties
City National Bank	Steadfast Companies
Palm Desert National Bank	Shaw Properties
1st Capital Bank	Rexco Real Estate Development
California Statewide CDC	Cardinal Development Company
First American Bank	Lord Constructors
Hamni Bank	Caribou Industries
First Foundation Bank	Western National Realty Advisors
Sun Country Bank	Sares-Regis Group
Union Bank of California	Gilmore Associates
Bank of China	Aardex Corporation
Uniti Bank	Arlen Capital
Dynex Financial, Inc.	Martin Building Company
Silvergate Bank	NPL Construction Co.
Finova Corporation	Carmenita Investment Properties
ARCS Commercial Mortgage	The Davidson Group
GE Financial Corporation	National Golf Properties
Sanwa Bank	Nextel Communications
BBVA Compass	Coca Cola Enterprises
First Union Small Business Capital	General Telephone Company
California Republic Bank	Intuit
Bank One	Rockwell International
Sun Life of America	Pacific Sales
City of Redlands	University of Southern California
City of Los Angeles CRA	Pepperdine University

REFERENCES

Lenders

Mr. Gary Cook
American Business Bank
523 West 6th Street, Suite 900
Los Angeles, CA 90014
Email: gcook@americanbb.bank

Mr. Grady Kjesbo
Community Bank
2100 Main Street
Irvine, CA 92814
T: 949-223-4148
Email: gkjesbo@cbank.com

Real Estate Investor/Developer

Mr. Brad Kaplan
Descansando Properties
PO Box 4792
Covina, CA 91723
Email: bkaplan2723@yahoo.com

Mr. Tim Hawke
President
Strata Realty
2433 Pomona Rincon Road
Corona, CA 92880
Email: thawke@stratarealty.com

Real Estate Broker

Mr. Richard C. John
Executive Vice President
Branch Manager
Daum Commercial Real Estate Services
3595 East Inland Empire Blvd., Bldg. 5
Ontario, CA 91764
T: 909-980-1234
Email: rj@daumcommercial.com

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 10/9/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Van Oppen & Co. 2, Inc. VOCO 2 Insurance & Risk Control Services P.O. Box 793 Teton Village WY 83025	**CONTACT NAME:** Brenda Todd **PHONE (A/C, No, Ext):** 800-746-0048 **FAX (A/C, No):** **E-MAIL ADDRESS:** service@vanoppenco2.com
INSURED HEICO-1 HEI Corporation 1805 Peninsula Pl Costa Mesa CA 92627	**INSURER(S) AFFORDING COVERAGE** / **NAIC #** **INSURER A :** Westchester Surplus Lines / 10172 **INSURER B :** **INSURER C :** **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1037088349 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** ☐ CLAIMS-MADE ☒ OCCUR X CPL(Pollution) GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY ☐ PRO-JECT ☐ LOC OTHER:	Y	Y	G24331337 005	11/4/2020	11/4/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 50,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
A	**AUTOMOBILE LIABILITY** ANY AUTO ALL OWNED AUTOS ☐ SCHEDULED AUTOS X HIRED AUTOS ☒ NON-OWNED AUTOS	Y	Y	G24331337 005	11/4/2020	11/4/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
	☐ **UMBRELLA LIAB** ☐ OCCUR ☐ **EXCESS LIAB** ☐ CLAIMS-MADE ☐ DED ☐ RETENTION $						EACH OCCURRENCE AGGREGATE $	$ $ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N/A **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below						☐ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $ $
A	Professional Liability "Claims Made" Subject to GL Aggregate			G24331337 005	11/4/2020	11/4/2022	Each Claim Aggregate	1,000,000 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

General Information

CERTIFICATE HOLDER

General Information

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



© 1988-2014 ACORD CORPORATION. All rights reserved.

Appendix I

Onsite and Offsite Drainage Report

ONSITE AND OFFSITE DRAINAGE REPORT

230TH STREET COMMUNITY SOLAR AND BATTERY ENERGY STORAGE SYSTEM PROJECT

SE Corner of W Avenue C 8 and 230th St W

Los Angeles County, CA 93536

CUP PLAN CASE NO. PRJ2023-002405

HYDROLOGY PLAN CASE NO. ESTU 2023000704

PREPARED FOR

RPCA Solar 12, LLC

44 Montgomery Street, Suite 3150
San Francisco, CA 94104
Contact: Brian Madigan
(724) 413-8688
bmadigan@renewprop.com

PREPARED BY

Kimley»Horn

Project Manager: Chris Young, PE (RCE #91146)
660 South Figueroa Street, Suite 2050
Los Angeles, CA 90017
(213) 261-4100

Project Engineer: David Bossu, PE (RCE# 78103)
1100 Town and Country Rd, Suite 700
Orange, CA 92868
(714) 939-1030



October 2024

TABLE OF CONTENTS

1 INTRODUCTION 2
1.1 Project Background 2
1.2 Subject Tract Description 2
2 METHODOLOGY 3
2.1 Hydrology 3
2.2 LID Mitigation Requirements 3
3 ONSITE AND OFFSITE DRAINAGE ANALYSIS 4
3.1 Drainage Conditions 4
3.2 Onsite Drainage Analysis 4
4 PROPOSED MITIGATIONS 4
5 DISCUSSION OF POTENTIAL IMPACTS 8
5.1 General Impacts 8
6 REFERENCES 9

LIST OF TABLES

Table 1. Offsite Peak Flow Rates (50-Year Storm)
Table 2. Basin Sizing

LIST OF FIGURES

Figure 1. Vicinity Map
Figure 2. FEMA FIRM
Figure 3. Existing Conditions Onsite Hydrology Map
Figure 4. Proposed Conditions Onsite Hydrology Map
Figure 5. Drainage Area Map

LIST OF APPENDICES

Appendix A. Figures

Appendix B. Onsite Hydrologic Calculations

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Kimley-Horn was retained by RPCA Solar 12, LLC to conduct a hydrologic analysis for the flow entering the proposed Solar Photovoltaic (PV) Generation Facility, 230th Street Community Solar and Battery Energy Storage System Project, in unincorporated Los Angeles (LA) County, California (Figure 1). The purpose of this report is to provide the results of the drainage analysis, evaluate the potential impacts, and provide recommendations associated with storm runoff.

The 230th Street Community Solar (Project) is a utility-scale Solar Generation Facility and optional battery energy storage system (BESS) that will generate, charge, store, and discharge renewable solar electricity with minimal environmental impacts. The Project facilities will operate year-round, producing electric power during daytime hours and discharging stored electric power at night. The Project would have a generating capacity of up to 6.4 megawatts (MW) alternating current (AC).

PV solar module arrays will be installed on a single-axis tracker racking system that is mounted on piles driven into the ground. These arrays, along with string inverters and project equipment, will be enclosed by a chain link perimeter fence with a barbed wire top. The subject tract will include at-grade perimeter and internal access roads. Access to the subject tract will be provided along 230th Street West. Offsite transmission will consist of interconnecting to the existing distribution grid and are thus not included in this study.

1.2 SUBJECT TRACT DESCRIPTION

The subject tract is approximately 31 acres and located in unincorporated Los Angeles County, CA. The subject tract is bounded by W Avenue C 8 to the north, 227th Street W to the east, residential units and W Avenue D (Highway 138) to the south, and 230th Street W to the west.

Stormwater runoff from the San Gabriel Mountain range generally flows northwest and passes through the subject tract. The California Aqueduct is located at the foothills of the San Gabriel Mountains, but drainage can pass above and below via existing above-grade concrete channels and underground culverts.

The subject tract drains to from the southwest to northeast corner of the subject tract, with slopes ranging from less than 1% to 3% throughout the subject tract. The subject tract is surrounded by farmland, undeveloped land, and a nearby solar farm to the northeast.

The subject tract is within FEMA Flood Zone X (unshaded) and adjacent to Flood Zone A (Figure 2). Zone A is defined as special flood hazard areas (SFHA's) subject to inundation by the 1% annual chance flood, with no base flood elevations determined. FEMA Flood Zone X (unshaded) is defined as areas outside the 0.2% annual chance floodplain as identified by FEMA Effective Flood Insurance Rate Map (FIRM) for Los Angeles County (Panel 06037C0100F, Effective 09/26/2008). The project will avoid any grading and development activities within the Flood Zone A footprint.

2 METHODOLOGY

2.1 HYDROLOGY

Onsite hydrologic calculations were performed based on the Modified Rational Method using the LA County HydroCalc software to determine peak flow rates for 2, 5, 10, 25, and 50-year storm events based on the LA County Hydrology Manual. Primary inputs for this program include precipitation depth, LA County soil classification, drainage area, impervious coverage, flow path length and slope.

2.2 LID MITIGATION REQUIREMENTS

This report will demonstrate compliance with the two main goals of Los Angeles County Department of Public Works (LACDPW) as conveyed by the Land Development Division. The first goal is to eliminate downstream impacts of development by affecting downstream flow characteristics, including flow width, depth, velocity, rate, and discharge volume. The second goal is to comply with Low Impact Development (LID) requirements per the LID Standards Manual, 2014 (LID Manual) per County Code §12.84.440.

The subject tract is approximately 31 acres in size. Due to the assumption of 10% post-developed impervious area required by LACDPW, the assumed impervious area is approximately 2.89 acres, or about 125,888 square feet. These criteria exceed the thresholds defined in LID Manual section 2.1 as follow: “over 1 acre disturbed and adding over 10,000 square feet of impervious surface.” Therefore, The Project is categorized as a Designated Project.

Mitigation of peak flow and runoff volume follows the LID Manual. Section 8 of the LID Manual discusses hydromodification requirements; Section 8.3 requires “hydrology and hydraulic frequency analyses for LID, 2-, 5-, 10-, 25-, and 50-year storm events per the LACDPW Hydraulic and Hydrology manuals”. For this application, hydromodification requires that post-development runoff conditions of the required storm events do not exceed pre-development runoff conditions of the same storm events. Per Section 6.2 of the LID Manual, the volume-based LID storm event, or stormwater quality design volume (SWQDv), is defined as the 85th percentile, 24-hour storm dictated by LA County or the 0.75-inch, 24-hour storm applied across the tributary watershed, whichever is greater. This analysis of multiple storm events was performed for onsite drainage areas only.

Per the direction of LACDPW, Kimley-Horn understands the following design assumptions were made to match the input parameters of LID design on previous solar sites in LA County:

1. Required retention: any incremental runoff (flow rate and hydrograph volume) from the 2-, 5-, 10-, 25-, and 50-year storm events (unburned and unbulked).
2. Required minimum assumed proposed percent impervious in Array Fields: 10%
3. Requested maximum ponding depth in retention basins without fencing: 18-inches
4. Requested basin location: middle of the subject tract or adequately upstream of the subject tract outflow point to promote normalization of discharge to sheet flow (or pre-development flow condition) prior to discharging from the subject tract to neighboring properties; basins may not be located along the downstream edge of the subject tract adjacent to neighboring properties.

3 ONSITE AND OFFSITE DRAINAGE ANALYSIS

3.1 DRAINAGE CONDITIONS

The contributing offsite drainage watershed for the subject tract is approximately 6.39 mi^2 (~4,089 acres). An offsite drainage analysis was performed using a 2D hydraulic model. The Q_{50} noted on the civil plans was developed using the offsite analysis. At the request of the County, the detailed discussion was removed from this report since the County is only reviewing onsite impacts at this time.

All horizontal coordinates are based on NAD 83, California State Plane, Zone V, US foot. All orthometric heights are based on NAVD 88. Onsite basins were delineated using onsite surveyed topo.

Runoff generated onsite, generally flows from west to east and exits The subject tract as sheet and shallow-concentrated flow. The subject tract is generally flat with most slopes under 2% and none exceeding 3%.

3.2 ONSITE DRAINAGE ANALYSIS

The onsite hydrologic analyses were completed following the methods outlined in the Los Angeles County Department of Public Works Hydrology Manual dated January 2006 and referencing the County of Los Angeles Department of Public Works Low Impact Development Standards Manual dated February 2014. Los Angeles County's HydroCalc software was used to estimate times of concentration, peak flows, and unit hydrograph volumes generated from storms up to the 50-year storm event for existing and proposed conditions. Drainage area delineation, flow path length and slope, and imperviousness were calculated using survey data and Construction Documents. The 50-year rainfall depth, soil type, and fire factor were determined using the Los Angeles County Hydrology GIS map.

4 PROPOSED MITIGATIONS

4.1.1 VOLUME

LID Manual section 6 requires that the Stormwater Quality Design Volume (SWQDv) be retained onsite and is defined as the greater of the 0.75-inch, 24-hour rain event or the 85th percentile, 24-hour rain event. The 85th percentile depth is X in, so the 0.75 inch event will govern for LID design. See Table 2 for the onsite SWQDv summary. LID Manual section 8 requires hydromodification mitigation for the 2-, 5-, 10-, 25-, and 50-year storm events and requires that any increase in runoff volume (delta) between pre- and post-development conditions be retained onsite to mitigate adverse impacts downstream. As demonstrated in the calculation summary in Table 3 below and Appendix C, the 50-year event controls volumetric retention required for onsite drainage areas because it results in the greatest delta of required events. The stormwater quality control measure of Infiltration Basin (RET-2) is recommended for the subject tract. The basin(s) were sized to retain the delta as shown on Figure 3. There are no natural drainage systems tributary to the subject tract with capital flood flow rates greater than 5,000 cfs. Therefore, sediment transport analysis is not required and was not prepared in this study.

All onsite drainage areas generally flow southwest to northeast across the subject tract and are under 40 acres. DA-1 remained generally unchanged from pre-development conditions and under 40 acres. The retention basins will be sized to retain the SWQDv from the subject tract, as shown in Table 4 and 5. The basins will be generally located on the downstream end of the subject tract,

and swales will be used as necessary to direct flow to the basins. Full calculations are in Appendix C.

Onsite infiltration basins will be excavated below existing grade per the detail shown on Figure 3. Spoils from basin excavation shall be relocated onsite, maintaining flow paths and inundation limits. Basins will be constructed perpendicular to the direction of flow in order to capture runoff from the upper portion of the subject tract.

A conservative design infiltration rate of 0.66 inches per hour was confirmed by a Supplemental Infiltration Testing Memorandum completed by Salem Engineering Group, Inc. dated March 13, 2024. A factor of safety of 1.5 was applied to the measured double ring infiltration rate to obtain the 0.66 inches per hour rate. Infiltration will be feasible and consistent with the most recent Geotechnical and Materials Engineering Division (GMED) Policy GS 200.1. The maximum drawdown time per LID Manual Stormwater Quality Control Measure Fact Sheet *RET-2: Infiltration Basin* is 96 hours. The maximum depth of water that can be infiltrated for that design infiltration rate is 5.3 ft. As shown on the detail sheet in Figure 3, proposed retention basins are sized assuming a ponding depth of 18-inches, which would result in an expected drawdown time of roughly 27.3 hours. See Table 6 for the drawdown time summary of the proposed basin. Actual ponding depths will be determined during final design but will not result in drawdown times greater than 96 hours. Additional infiltration testing may be required if basin bottoms are excavated lower than the depth of infiltration field testing (field testing was done at 12 inches below grade), pursuant to GS 200.1.

Table 2 – Onsite Hydromod Water Quality Volume (WQDv)

Subarea	Area (ac)	Impervious	Isohyetal (in)	Peak Q (cfs)	Volume (cf)
DA-1	31.02	0.10	0.75	0.58	15,082
Total	31.02			0.58	15,082

Table 3 – Onsite Proposed Hydromod Volume Comparison

Subarea	Area (ac)	Freq.	50-Year Isohyetal (in)	Impervious		Peak Q (cfs)		Volume (cf)		
				Ex.	Prop.	Ex.	Prop.	Ex.	Prop.	Delta
DA-1	31.02	2-yr	5.20	0.01	0.10	1.73	2.89	24,271	40,451	16,180
Total	31.02								Subtotal	16,180
DA-1	31.02	5-yr	5.20	0.01	0.10	2.62	4.36	36,626	61,043	24,417
Total	28.20								Subtotal	24,417
DA-1	31.02	10-yr	5.20	0.01	0.10	3.20	5.33	44,779	74,632	29,853
Total	31.02								Subtotal	29,853
DA-1	31.02	25-yr	5.20	0.01	0.10	3.93	6.55	55,064	91,774	36,710
Total	31.02								Subtotal	36,710
DA-1	31.02	50-yr	5.20	0.01	0.10	6.16	8.99	64,039	105,729	41,690
Total	31.02								Subtotal	41,690

Table 4 – Retention Volume Required

Subarea	SWQDv Required (cf)	Pre vs Post Delta Volume for 50-yr (cf)	Existing Retention Volume (cf)	Required Retention Volume (cf)
DA-1	15,082	41,690	0	41,690
			Total Required Retention Volume	41,690

Table 5 – Proposed Basin Summary

Basins	Area	SWQDv (cf)	50-yr Mitigation Volume (cf)	Required Retention Volume (cf)	Design Length (ft)	Design Width (ft)	Design Area (sf)	Design Depth (ft)	Design Volume (cf)	$V_{design} > V_{required}$?
1-6	DA-1	13,710	41,690	41,690	1,203	65	27,793	1.5	42,336	YES
Total Required Retention Volume				41,690	Total Designed Volume				42,336	

Table 6 – Infiltration Basin Drawdown

Basin	Ponding Depth (ft)	Infiltration Rate (in/hr)	Factor of Safety	Design Infiltration Rate (in/hr)	Drawdown Time (hr)
1	1.5	1	1.5	0.66	27.3

See figure 3 for comprehensive tables and depiction of onsite runoff conditions pre/post development.

4.1.2 Flow Rate, Depth, and Velocity

The analysis shows that post-development peak flow rates exceed pre-development conditions. Consequently, post-development flow depths and velocities would also exceed pre-development conditions when conveyed across original grade. The proposed infiltration retention basins compensates for changes in runoff volume as discussed above and attenuates peak flows in a similar manner; see Figure 3 for basin locations. The analysis shows no increases in runoff flow rates nor discharge volumes. Therefore, negligible increases are anticipated to depths and velocities exiting the subject tract from each onsite drainage area. The mitigation effects of the basins for the 50-year storm are consistent with LACDPW Hydromodification requirements.

4.1.3 Flow Type

Each onsite retention basin is to be constructed from existing materials in the approximate location shown unless otherwise approved by LACDPW. This design will serve to promote the normalization of excess runoff during storm events exceeding the design capacity of the basins.

4.1.4 Source Control measures

Source control measures are designated to prevent pollutants from contacting stormwater runoff or prevent discharge of contaminated stormwater runoff to the storm drain system and/or receiving water. The subject tract will be an unmanned solar facility with no proposed regularly occupied

buildings or designated parking and will not feature underground storm drain systems. The following source control measures detailed in the LID Manual are recommended for this subject tract during and/or after construction if determined to be applicable during final design:

- S-2 – Outdoor Material Storage Area
- S-3 – Trash Storage/Waste Handling Area
- S-5 – Outdoor Vehicle/Equipment Repair/Maintenance Area
- S-6 – Outdoor Vehicle/Equipment/Accessory Wash Area
- S-7 – Fuel & Maintenance Area
- S-8 – Landscape Irrigation Practices
- S-9 – Building Materials

5 DISCUSSION OF POTENTIAL IMPACTS

5.1 GENERAL IMPACTS

The proposed Project is a utility-scale Solar Generation Facility and Optional battery energy storage system (BESS) that will generate, charge, store, and discharge renewable solar electricity. The improvements to the subject tract will include the solar panels, at-grade earth perimeter and internal access roads, and the associated electrical equipment. The subject tract will be surrounded by a chain link security fence with barbed wire top.

The impacts of solar facilities on the hydrologic process and methods to quantify any impact have not been widely documented in the civil engineering industry. A study published in the Journal of Hydrologic Engineering researched the hydrologic impacts of utility scale solar generating facilities. The study utilized a model to simulate runoff from pre- and post-solar panel conditions. The study showed that the solar panels themselves have very little impact on runoff volumes or rates (Cook and McCuen, 2013). Increases in runoff were found from other well-documented causes such as increased imperviousness or significant reduction in vegetative cover. However, per LACDPW direction, this analysis conservatively assumed 10% impervious area in the post-developed condition for LID and hydromodification design.

Increases in imperviousness for the subject tract will be minimal. Onsite access roads will be gravel and/or compacted native soils. The subject tract has very little vegetation and only minor grading is proposed with minimal changes to the existing subject tract drainage patterns. However, in order to comply with LACDPW LID and hydromodification requirements, retention basins will be excavated onsite in order to attenuate assumed increases to peak flow and volume leaving the subject tract. Spoils from the basin excavation will be distributed onsite and will not substantially alter pre-development drainage patterns in order to balance earthwork on the subject tract.

6 REFERENCES

Cook, L.M. and McCuen, R.H. 2013. Hydrologic Response of Solar Impacts. Journal of Hydrologic Engineering, 18(5), 536-541.

Los Angeles County Department of Public Works, Water Resources Division. 2006. Los Angeles County Hydrology Manual. January 2006.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. Accessed 1/2017.

US Department of Agriculture, Natural Resource Conservation Service. 1986. Urban Hydrology for Small Watersheds, TR-55. June 1986.

U.S. Geological Survey (USGS). 2013. The National Elevation Dataset.

Appendix A – Figures

FIGURE 1

ANTELOPE VALLEY
Comprehensive Plan of Flood Control and Water Conservation

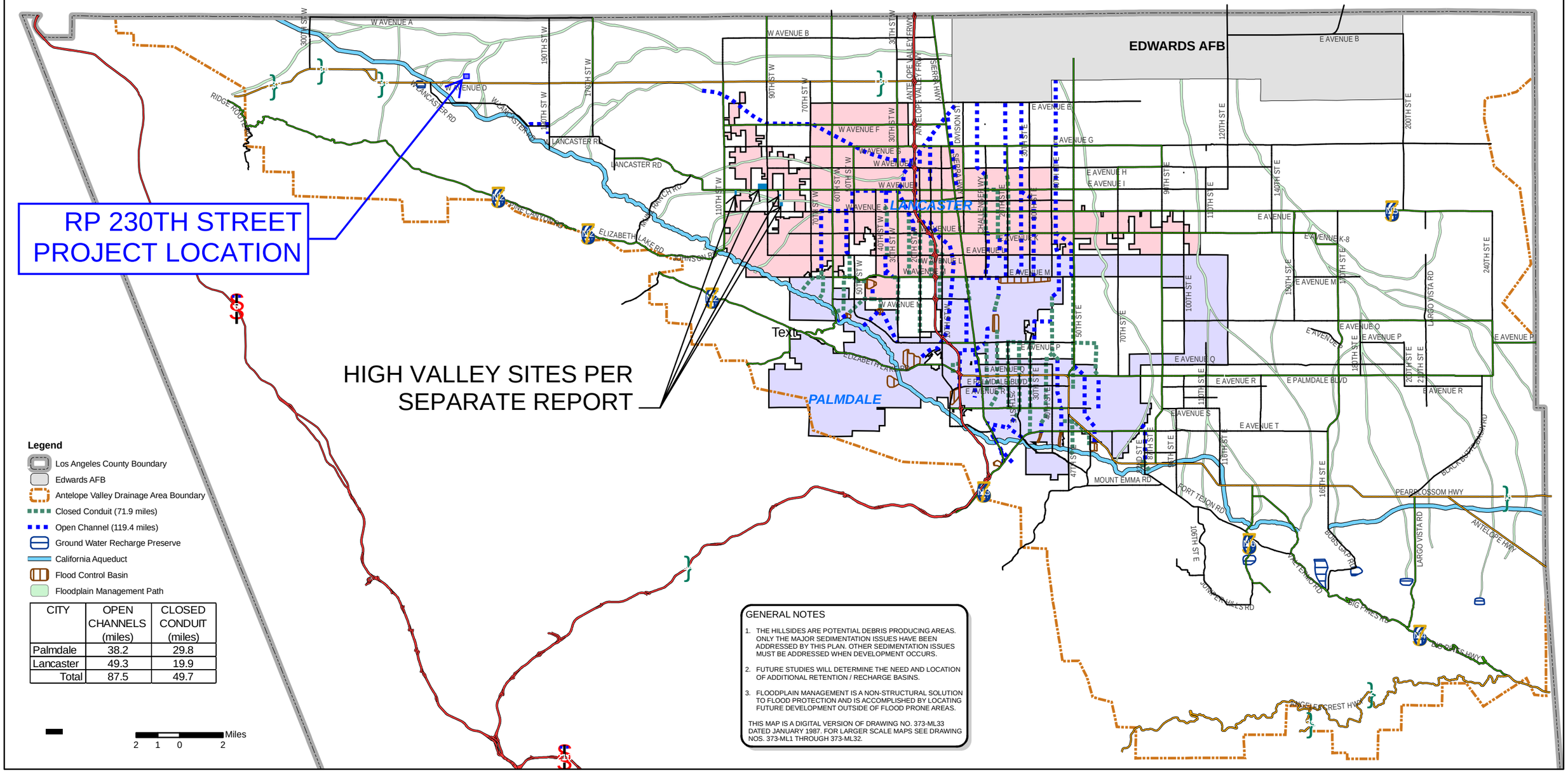
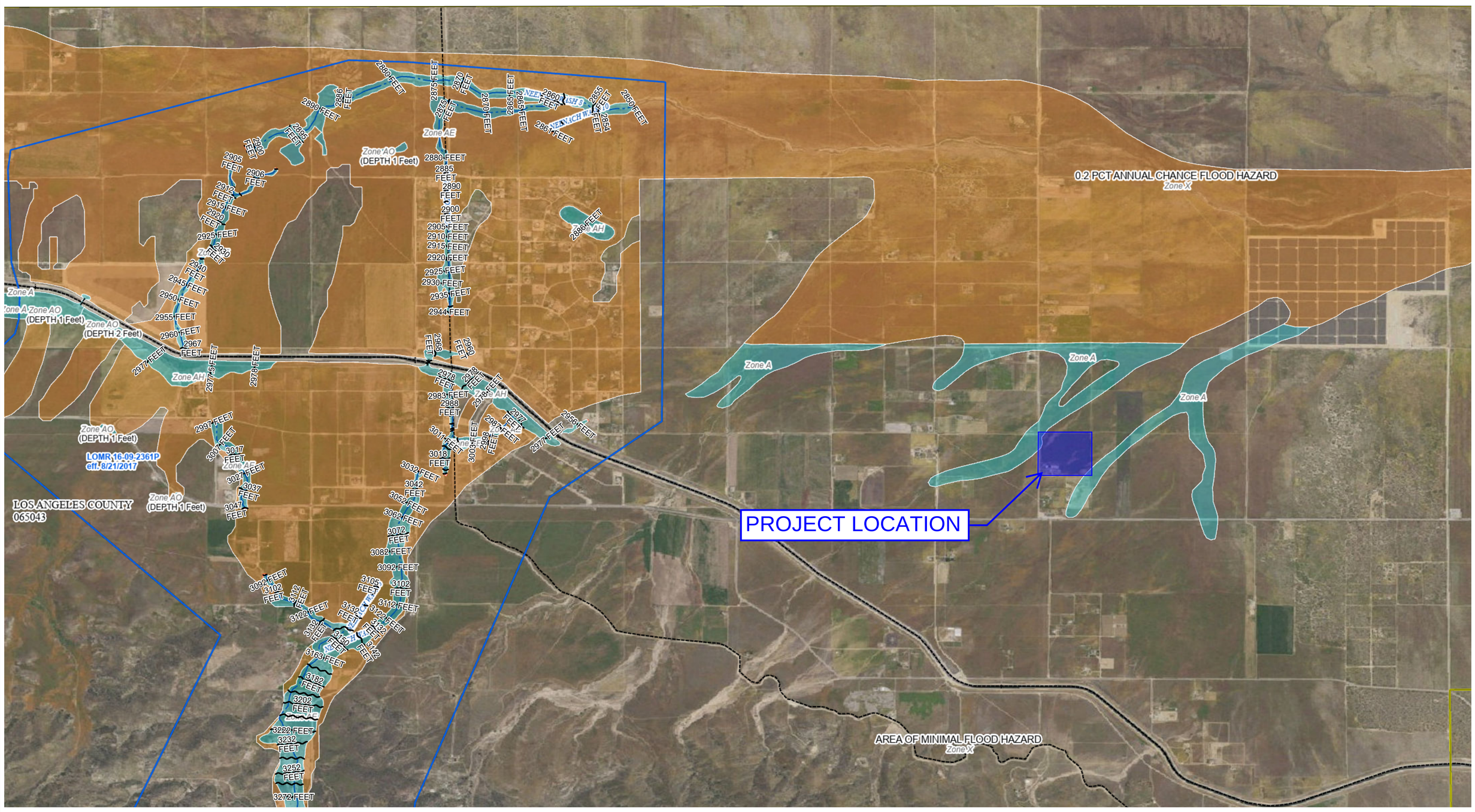

RP 230TH STREET
PROJECT LOCATION
HIGH VALLEY SITES PER
SEPARATE REPORT
EDWARDS AFB
LANCASTER
PALMDALE
W AVENUE A
W AVENUE B
W AVENUE D
W AVENUE F
W AVENUE G
W AVENUE H
W AVENUE I
W AVENUE J
W AVENUE K
W AVENUE L
W AVENUE M
W AVENUE N
E AVENUE B
E AVENUE G
E AVENUE H
E AVENUE I
E AVENUE J
E AVENUE K
E AVENUE K-8
E AVENUE L
E AVENUE M
E AVENUE N
E AVENUE O
E AVENUE P
E AVENUE Q
E AVENUE R
E AVENUE S
E AVENUE T
E PALMDALE BLVD
LANCASTER RD
ELIZABETH LAKE RD
MOUNT EMMA RD
FORT TEJON RD
PEARBLOSSOM HWY
ANTELOPE HWY
LOS ANGELES HWY
ANGELES FOREST HWY
SIERRA HWY
ANTELOPE VALLEY FRWY
LARGO VISTA RD
BLACK BUTTE DR
RIDGE ROUTE RD
PINE CANYON RD
SAN FRANCISQUITO CANYON RD
WILLIAMSON RD
BIG PINES HWY
PINE ENHOR RD
DOBLE GATE RD
VINCENT HILLS RD
30TH ST W
90TH ST W
70TH ST W
60TH ST W
50TH ST W
40TH ST W
30TH ST W
20TH ST W
10TH ST W
110TH ST W
190TH ST W
170TH ST W
150TH ST W
130TH ST W
120TH ST E
140TH ST E
160TH ST E
180TH ST E
200TH ST E
220TH ST E
240TH ST E
260TH ST E
280TH ST E
300TH ST E
320TH ST E
340TH ST E
360TH ST E

FIGURE 2



118°29'58.33"W 34°42'51.7"N

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **7/11/2024 2:35 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: NAVD88
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map, please see the Flood Insurance Study (FIS) Report for your community at https://msc.fema.gov

N

1 inch = 2,000 feet 1:24,000

0 1,000 2,000 4,000 6,000 8,000 Feet

0 210 420 840 1,260 1,680 Meters



NATIONAL FLOOD INSURANCE PROGRAM

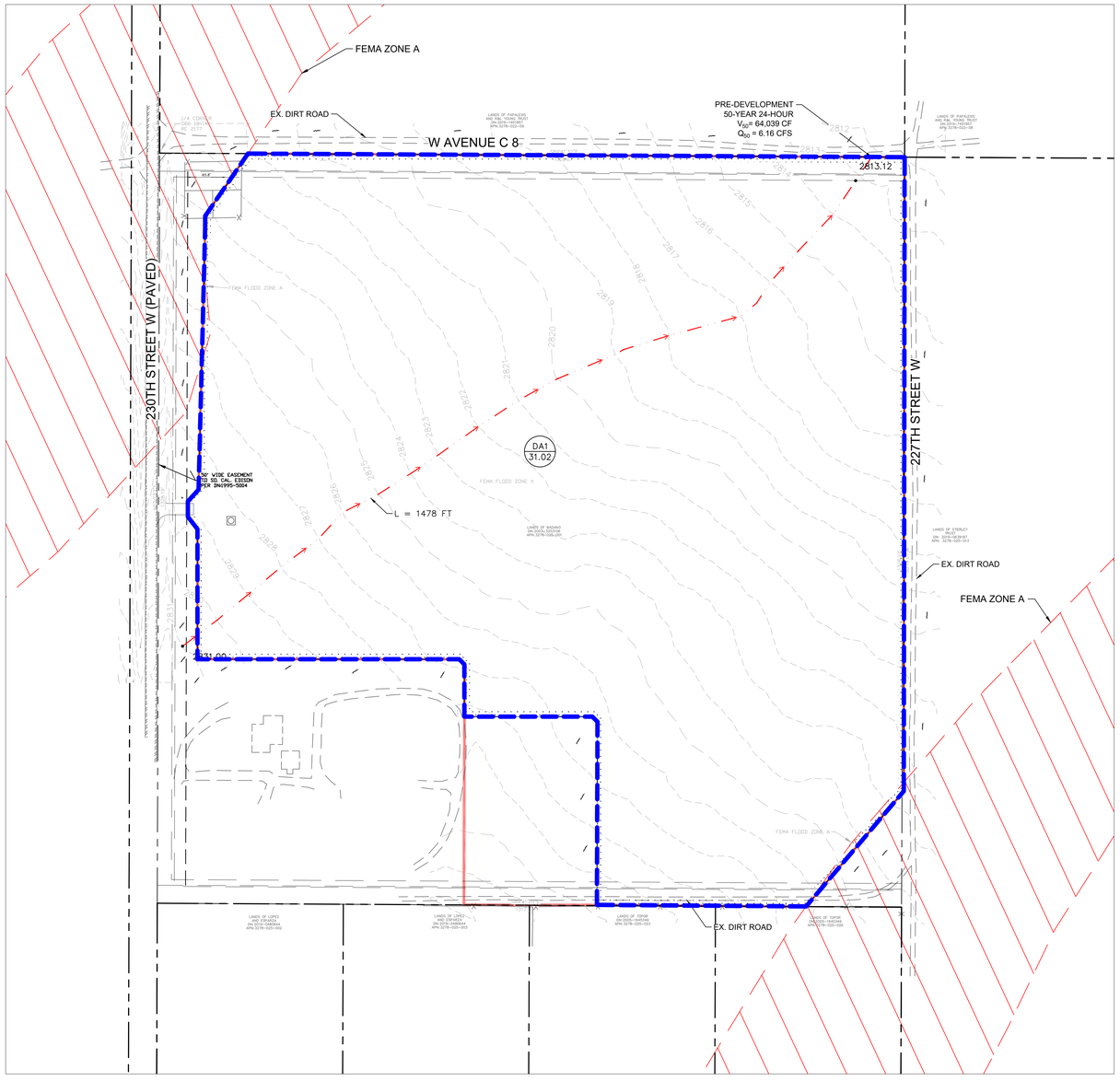
FLOOD INSURANCE RATE MAP

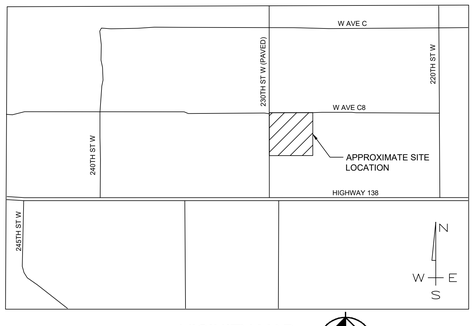
PANEL **100** OF **2204**

Panel Contains:

COMMUNITY	NUMBER	PANEL
LOS ANGELES COUNTY	065043	0100
KERN COUNTY	060075	0100

MAP NUMBER
06037C0100F
EFFECTIVE DATE
September 26, 2





VICINITY MAP
NTS

NORTH

LEGEND

- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMITS
- PARCEL LINE
- EASEMENT LINE
- ROAD CENTERLINE
- (2700) EXISTING GRADE CONTOUR
- DA1 / X.XX ONSITE DRAINAGE AREA WITH APPROXIMATE ACREAGE
- ONSITE DRAINAGE AREA LIMIT
- ONSITE DRAINAGE AREA FLOW PATH

NOTES

PROJECT SIZE: 31 AC

FLOOD ZONE: BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, PANEL NO. 06043010OF, DATED SEPTEMBER 26, 2008. THIS PROPERTY IS NOT LOCATED IN AN AREA WHERE FLOOD HAZARDS EXIST AS DETERMINED BY FEMA NOR IN A COUNTY ADOPTED FLOODWAY.

HYDROLOGIC CALCULATION INPUTS

INPUT PARAMETER	VALUE
PARAMETER APPLICATION	ONSITE BASIN SIZING
DEVELOPMENT CONDITIONS	EXISTING
STORM FREQUENCY	2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR, 50-YEAR
RAINFALL DEPTH (50-YEAR, 24-HOUR)	5.2 INCHES
85TH PERCENTILE, 24-HOUR	0.75 INCHES
SOIL TYPE	134
FIRE FACTOR	0.34
PERCENT IMPERVIOUS	1%
HYDROMOD SIZING CRITERIA	2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR 50-YEAR
DPA ZONE	11
BURN FACTOR[1]	N/A
BULKING FACTOR[1]	N/A

NOTES: N/A

1. PROJECT SITE IS NOT LOCATED IN THE COUNTY OF LOS ANGELES CANYONS OR MOUNTAINOUS AREAS WHICH ARE SUBJECT TO BURNING AND BULKING REQUIREMENTS.

TABLE 2: ONSITE FLOW AND VOLUME FOR 2-, 5-, 10-, 25-, AND 50-YR 24-HOUR STORM EVENTS

ONSITE DA ID	AREA (AC)	FLOW PATH LENGTH (LF)	START ELEVATION (FT)	END ELEVATION (FT)	FLOW PATH SLOPE (FT/FT)	2-YEAR, 24-HOUR		5-YEAR, 24-HOUR		10-YEAR, 24-HOUR		25-YEAR, 24-HOUR		50-YEAR, 24-HOUR	
						FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)
DA-1	31.02	1478	2831	2813.12	0.012	1.73	24271	2.61	36626	3.20	44779.00	3.93	55064	6.16	64039
SUBTOTAL						1.73	24271	2.61	36626	3.20	44779	3.93	55064	6.16	64039

* OFFSITE FLOWS SHOWN WERE DEVELOPED USING THE ARMY CORP OF ENGINEERS HEC-RAS (V5.0.7) MAPPER 2D FEATURE. THE PROFILE FEATURE WITHIN RAS-MAPPER WAS UTILIZED TO FIND MAX OFFSITE FLOWS PASSING THROUGH EACH ONSITE DRAINAGE AREA. PLEASE SEE REPORT NARRATIVE FOR DETAILS.

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200
1"=100' WHEN PLOTTED ON 30"x42"

REVISIONS

No.	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER YOUNG
No. 24637
CIVIL
EXPIRES: 09/30/2025

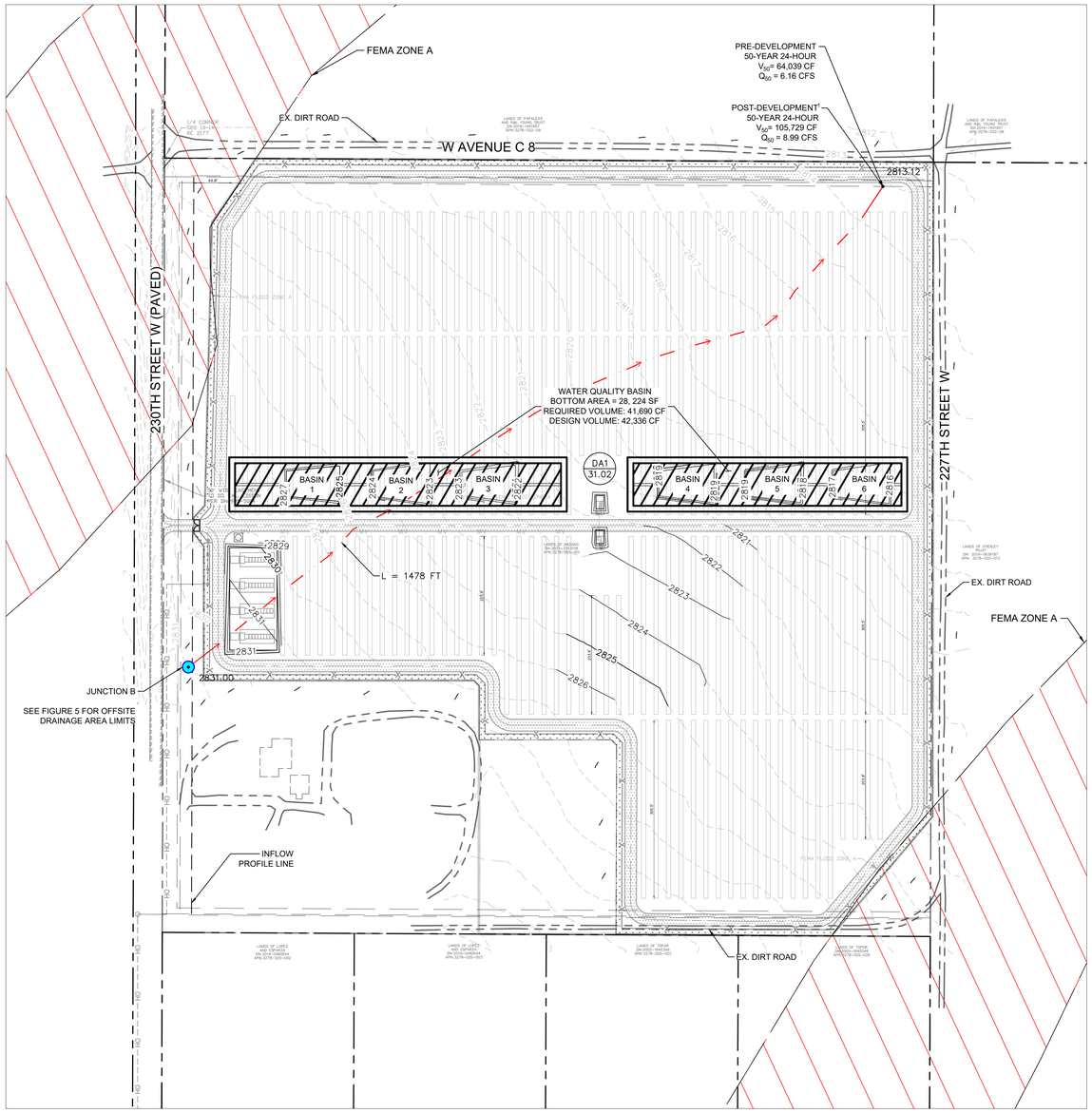
KHA PROJECT 099950006
DATE 10/23/2024
SCALE AS SHOWN
DESIGNED BY BY
DRAWN BY BY
CHECKED BY CY

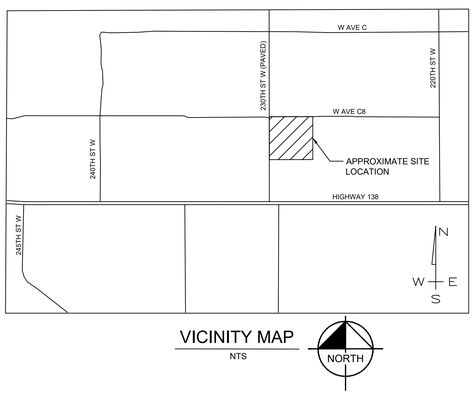
230TH STREET SOLAR
PREPARED FOR
RPCA
LOS ANGELES COUNTY CALIFORNIA

EXISTING CONDITIONS ONSITE HYDROLOGY MAP
CUP CASE NO. PRJ2023-002405

SHEET NUMBER
FIG-7

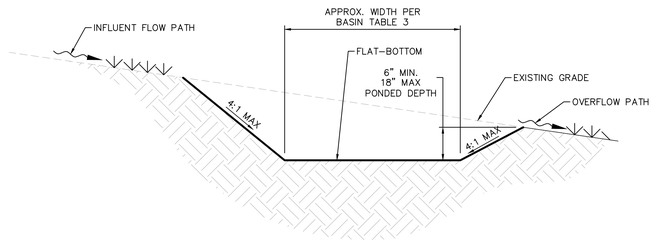
Plotted By: Young, Chris Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN October 24, 2024 01:44:33pm K:\LDT_ENERGY\RPCA Ground-mount\099997002 RCPA 230th St Exhibit E\08 H&H\Dwg\Exhibits\230th Existing Hydrology.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.





VICINITY MAP
NTS

NORTH



NOTES:
1. THIS DETAIL REPRESENTS GENERAL INTENT; BASINS TO BE FURTHER DETAILED DURING FINAL DESIGN.
2. SPOILS FROM BASIN EXCAVATION ARE TO REMAIN ON-SITE, SHOULD BE PLACED ON RIDGELINES WHERE POSSIBLE.
3. BASINS TO BE CONSTRUCTED IN ELONGATED RECTANGULAR LAYOUT AS SHOWN PER PLAN.
4. PROPOSED ONSITE ACCESS ROADS SHALL REMAIN AT EXISTING GRADE, ELEVATED ABOVE BASIN INUNDATION ELEVATIONS IN ORDER TO DISCOURAGE INUNDATION OF TRAVELED WAY.
5. EARTHWORK REQUIRED FOR BASIN GRADING AND DAYLIGHT SLOPES MAY EXCEED THE MINIMUM REQUIRED STORAGE OR RETENTION VOLUME AND IS SUBJECT TO CHANGE DURING THE FINAL DESIGN
6. GENERAL MAINTENANCE IS REQUIRED FOR INFILTRATION BASINS TO FUNCTION PROPERLY AND MAY INCLUDE INSPECTIONS, TRASH REMOVAL, VEGETATION MAINTENANCE, ETC.

TYPICAL INFILTRATION RETENTION BASIN
N.T.S.

LEGEND

- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMITS
- PARCEL LINE
- EASEMENT LINE
- ROAD CENTERLINE
- EXISTING GRADE CONTOUR
- PROPOSED GRADE CONTOUR
- MODULE SAT ROW
- PROPOSED CHAIN LINK FENCE
- PROPOSED GEN TIE LINE
- 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- 20' SITE ACCESS GATE
- ONSITE DRAINAGE AREA WITH APPROXIMATE ACREAGE (DA1 / X.XX)
- ONSITE DRAINAGE AREA LIMIT
- ONSITE DRAINAGE AREA FLOW PATH
- FEMA ZONE A
- RETENTION BASIN

TABLE 1: HYDROLOGIC CALCULATION INPUTS

INPUT PARAMETER	VALUE
PARAMETER APPLICATION	ONSITE BASIN SIZING
DEVELOPMENT CONDITIONS	PROPOSED
STORM FREQUENCY	0.75-INCH, 2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR, 50-YEAR
RAINFALL DEPTH (50-YEAR, 24-HOUR)	5.2 INCHES
85TH PERCENTILE, 24-HOUR	0.75 INCHES
SOIL TYPE	134
FIRE FACTOR	0.34
PERCENT IMPERVIOUS	10%
HYDROMOD SIZING CRITERIA	2-YEAR, 5-YEAR, 10-YEAR, 25-YEAR 50-YEAR
DPA ZONE	11
BURN FACTOR[1]	N/A
BULKING FACTOR[1]	N/A

NOTES: N/A

1. PROJECT SITE IS NOT LOCATED IN THE COUNTY OF LOS ANGELES CANYONS OR MOUNTAINOUS AREAS WHICH ARE SUBJECT TO BURNING AND BULKING REQUIREMENTS.

APPROXIMATE BASIN CAPACITY

BASIN	ELEVATION	DEPTH (FT)	AREA (SF)	VOLUME (CF)	CUMULATIVE VOLUME (CF)	CUMULATIVE VOLUME (ACFT)
1	2824.40	1.50	4328	6492		
2	2822.30	1.43	4792	6853	13345	0.30
3	2821.00	1.38	4792	6612	19957	0.45
4	2818.70	1.50	4792	7188	27145	0.62
5	2816.82	1.50	5143	7715	34860	0.80
6	2815.30	1.50	4984	7476	42336	0.97
				TOTAL VOLUME	42336	0.97

TABLE 2A: PRE-DEVELOPED ONSITE FLOW AND VOLUME FOR 2-, 5-, 10-, 25-, AND 50-YR 24-HOUR STORM

ONSITE DA ID	AREA (AC)	FLOW PATH LENGTH (LF)	START ELEVATION (FT)	END ELEVATION (FT)	FLOW PATH SLOPE (FT/FT)	2-YEAR, 24-HOUR		5-YEAR, 24-HOUR		10-YEAR, 24-HOUR		25-YEAR, 24-HOUR		50-YEAR, 24-HOUR	
						FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)
DA-1	31.02	1478	2831	2813.12	0.012	1.73	24271	2.61	36626	3.20	44779.00	3.93	55064	6.16	64039
SUBTOTAL						1.73	24271	2.61	36626	3.20	44779	3.93	55064	6.16	64039

TABLE 2B: POST-DEVELOPED ONSITE FLOW AND VOLUME FOR 2-, 5-, 10-, 25-, AND 50-YR 24-HOUR STORM

ONSITE DA ID	AREA (AC)	FLOW PATH LENGTH (LF)	START ELEVATION (FT)	END ELEVATION (FT)	FLOW PATH SLOPE (FT/FT)	2-YEAR, 24-HOUR		5-YEAR, 24-HOUR		10-YEAR, 24-HOUR		25-YEAR, 24-HOUR		50-YEAR, 24-HOUR	
						FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)	FLOW (CFS)	VOLUME (CF)
DA-1	31.02	1478	2831	2813.12	0.012	2.89	40451	4.34	61043	5.33	74632	6.55	91774	8.99	105729
SUBTOTAL						2.89	40451	4.34	61043	5.33	74632	6.55	91774	8.99	105729

TABLE 3: SWQDV AND RETENTION REQUIREMENTS

Basin	Tributary DA	Project Design Storm (in)	SWQDv (cf)	50-yr Event Mitigation Volume (cf)	Existing Retention Volume (cf)	Required Retention Volume (cf)	Design Length (ft)	Design Width (ft)	Design Area (sf)	Design Depth (ft)	Design Volume (cf)
1	DA-1	0.75	15082	41690	0	41690	1203	23	28224	1.5	42336
					Total Required Retention Volume	41690			Total Designed Volume		42336

TABLE 4: SITE SPECIFIC DESIGN INFILTRATION RATES

BASIN	DESIGN DEPTH (FT)	INFILTRATION RATE (IN/HR)	FACTOR OF SAFETY	DESIGN INFILTRATION RATE (IN/HR)	DRAWDOWN TIME (HR)	COUNTY REQUIRED DRAWDOWN TIME (HR)	REQUIRED DRAWDOWN TIME MET?
1	1.5	1	1.5	0.66	27.3	96	YES

NOTES

PROJECT SIZE: 31 AC.

FLOOD ZONE: BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, PANEL NO. 06504301 00F, DATED SEPTEMBER 26, 2008. THIS PROPERTY IS NOT LOCATED IN AN AREA WHERE FLOOD HAZARDS EXIST AS DETERMINED BY FEMA.

1. BY REQUEST OF THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS, POST-DEVELOPMENT FLOW RATE AND VOLUME CALCULATIONS CONSERVATIVELY ASSUME 10% IMPERVIOUS AREA ACROSS THE SITE. INCREASES IN THESE VALUES ARE MITIGATED BY ONSITE RETENTION INFILTRATION BASINS LOCATED NEAR THE CENTER OF THE SITE AS SHOWN HEREON. THEREFORE THE PROPOSED FACILITIES WILL NOT IMPACT OFFSITE FLOWS AND DRAINAGE PATTERNS. POST-DEVELOPMENT CONDITION RUNOFF CHARACTERISTICS ARE EXPECTED TO MATCH OR BE LESS THAN EXISTING CONDITIONS.
2. ONSITE RETENTION BASINS ARE DESIGNED TO PROVIDE LOW-IMPACT-DEVELOPMENT (LID) TREATMENT FOR WATER QUALITY AND MITIGATE FOR HYDROMODIFICATION BASED ON ASSUMED INCREASES IN SITE RUNOFF AS DISCUSSED IN THE "ONSITE AND OFFSITE DRAINAGE REPORT FOR RP 230TH STREET" PREPARED BY KIMLEY-HORN AND ASSOCIATES DATED OCTOBER 2023. REFER TO REPORT FOR MORE INFORMATION.
3. REFER TO GEOTECHNICAL INVESTIGATION INFILTRATION REPORT FOR PROPOSED STORM WATER INFILTRATION BASINS, DATED OCTOBER 2023 AND ANY SUBSEQUENT REVISIONS OR ADDENDA FOR MORE INFORMATION ON GEOTECHNICAL EXPLORATION AND TESTING. DESIGN INFILTRATION RATE WAS CONFIRMED TO EXCEED THE MINIMUM RATE OF 0.3 IN/HR SET BY GS.200.2 AND THE LID MANUAL.
4. REFER TO THE CUP SITE AND LANDSCAPE PLANS PRODUCED BY KIMLEY-HORN AND ASSOCIATES DATED OCTOBER 2023 OR ANY REVISIONS THEREAFTER FOR ADDITIONAL INFORMATION AND DETAILS ON PROPOSED SITE IMPROVEMENTS.
5. ACCORDING TO THE LOS ANGELES COUNTY COMPREHENSIVE FLOODPLAIN MANAGEMENT PLAN APPENDIX G, LOS ANGELES COUNTY FLOODWAY MAPS, AND FEMA, THE PROJECT SITE IS NOT LOCATED IN COUNTY OR FEDERAL ADOPTED FLOODWAY.
6. FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, THE PEAK FLOW RATES (Q 50) INCREASED BY A MAXIMUM OF 24%, AND THE VOLUMES (V 50) INCREASED BY A MAXIMUM OF 65% SIMILAR INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE SMALL INCREASE IN PEAK FLOW RATES (<24%). THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITION. THE POST-DEVELOPMENT DOES NOT INCLUDE THE MITIGATION EFFECTS OF THE BASINS. SEE IMPACT ANALYSIS CALCULATIONS.
7. DRAINAGE IMPROVEMENTS NOT TO BE MAINTAINED BY LACFCD.
8. FOR THE POST-DEVELOPMENT 50-YEAR STORM EVENT EXITING THE PROJECT, NEGLIGIBLE INCREASES ARE ANTICIPATED FOR THE DEPTHS AND VELOCITIES DUE TO THE NEGLIGIBLE INCREASE IN PEAK FLOW RATES. THESE REPRESENT NEGLIGIBLE INCREASES FROM THE PRE-DEVELOPMENT CONDITIONS. THESE POST-DEVELOPMENT CALCULATIONS DO NOT INCLUDE THE MITIGATION EFFECTS ON THE BASIN. (TYP.)
9. A GRADING AND DRAINAGE PLAN WILL BE SUBMITTED TO PUBLIC WORKS FOR REVIEW AND APPROVAL.

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200
1"=100' WHEN PLOTTED ON 30"x42"

No.	REVISIONS	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

© 2024 KIMLEY-HORN AND ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
NICHOLAS M. MONTEMAYOR
No. 34
CIVIL
STATE OF CALIFORNIA

EXPIRES: 09/30/2025

KHA PROJECT 099950006
DATE 10/23/2024
SCALE AS SHOWN
DESIGNED BY BY
DRAWN BY BY
CHECKED BY CY

230TH STREET SOLAR

PREPARED FOR
RPCA

CALIFORNIA
LOS ANGELES COUNTY

PROPOSED CONDITIONS ONSITE HYDROLOGY MAP
CUP CASE NO. PRJ2023-002405

SHEET NUMBER
FIG-4

Plotted By:Young, Chris Sheet Set:Kha Layout:CONCEPTUAL SITE PLAN October 24, 2024 01:50:41pm K:\LDT_ENERGY\RPCA Ground-mount\099997002 RCPA 230th St Exhibit E\08_Hdrl\Dwg\Exhibits\230th Proposed Hydrology.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. alone be without liability to Kimley-Horn and Associates, Inc.

Legend

- Drainage Areas
- FEMA Zone A
- 10 ft Contours
- Longest Flow Path
- Project Extents

DESIGN:	RR
DRAWN:	BR
REVIEW:	VAT

Kimley»Horn

660 S FIGUEROA ST, SUITE 2050
LOS ANGELES, CA 90017
PHONE: 213-261-4100

Ü

1 inch = 1,000 feet

230TH STREET SOLAR
LOS ANGELES COUNTY, CA

DRAINAGE AREA MAP

DATE
OCTOBER 2023

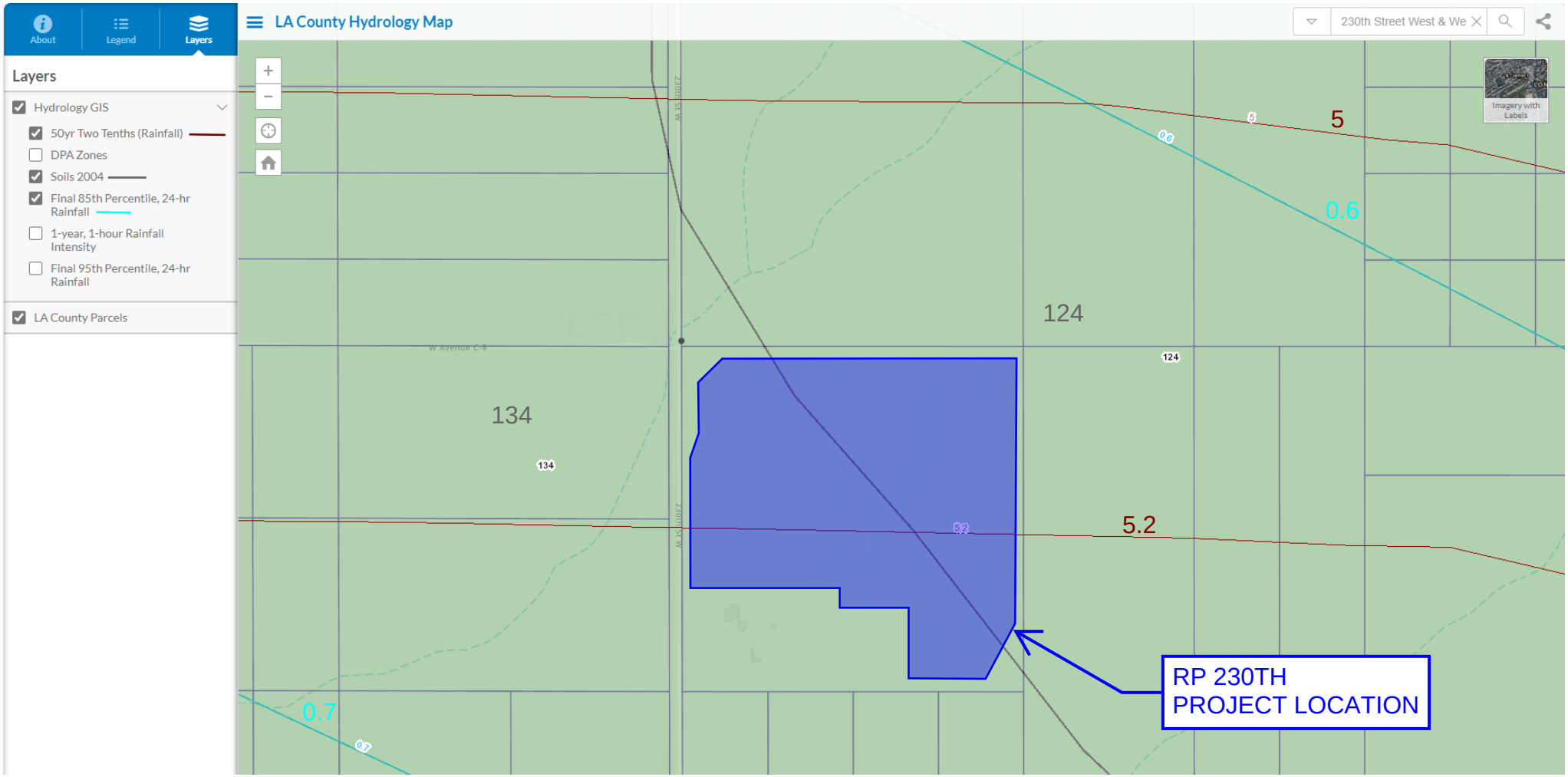
PROJECT NO.
099997002

SHEET NUMBER
FIG-5

Document Path: K:\LDT_Energy\RPCA Ground-mount\099997002_RCPA_230th St Exhibit E\09_H&HGIS\DR_230_.aprx

Appendix B – Onsite Hydrologic Calculations

Rainfall Depths, Soil Type



Based on LA County data the project offsite drainage areas have the following parameters:

50-yr, 24-hr rainfall depth: 5.2 inches (Incorporated in HEC-HMS as SCS storm)
85th percentile, 24-hr rainfall depth: 0.7 inch (0.75-inch storm > 85th percentile)
Soil Type: 134 and 124

On-Site Hydromod Volume (WQDv) (Post-Development; 85th percentile)						
Subarea	Area	Frequency	IMP	Isoheytal (in)	Peak Q (CFS)	Volume (CF)
DA-1	31.02	0.75 inch storm	0.10	0.75	0.58	15,082.00
					Total	15,082

On-Site Hydromod Volume

Subarea	Area (ac)	Freq.	Isoheytal (in)	%IMP		Peak Q (CFS)		Volume (CF)		
				Existing	Proposed	Existing	Proposed	Existing	Proposed	Delta
DA-1	31.02	2-yr	5.20	0.01	0.10	1.73	2.89	24,271	40,451	16,180
									Subtotal	16,180
DA-1	31.02	5-yr	5.20	0.01	0.10	2.62	4.36	36,626	61,043	24,417
									Subtotal	24,417
DA-1	31.02	10-yr	5.20	0.01	0.10	3.20	5.33	44,779	74,632	29,853
									Subtotal	29,853
DA-1	31.02	25-yr	5.20	0.01	0.10	3.93	6.55	55,064	91,774	36,710
									Subtotal	36,710
DA-1	31.02	50-yr	5.20	0.01	0.10	6.16	8.99	64,039	105,729	41,690
									Subtotal	41,690

Peak Flow Hydrologic Analysis

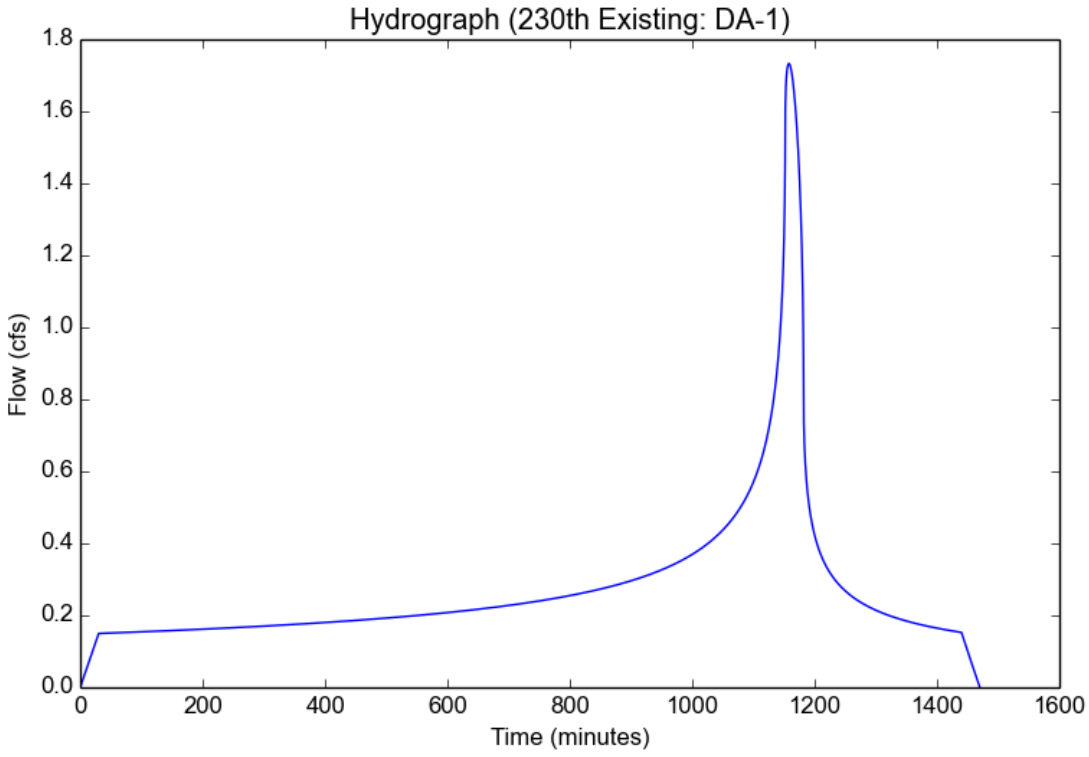
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	2-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (2-yr) Rainfall Depth (in)	2.0124
Peak Intensity (in/hr)	0.5172
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	1.7328
Burned Peak Flow Rate (cfs)	3.0754
24-Hr Clear Runoff Volume (ac-ft)	0.5572
24-Hr Clear Runoff Volume (cu-ft)	24270.9818



Peak Flow Hydrologic Analysis

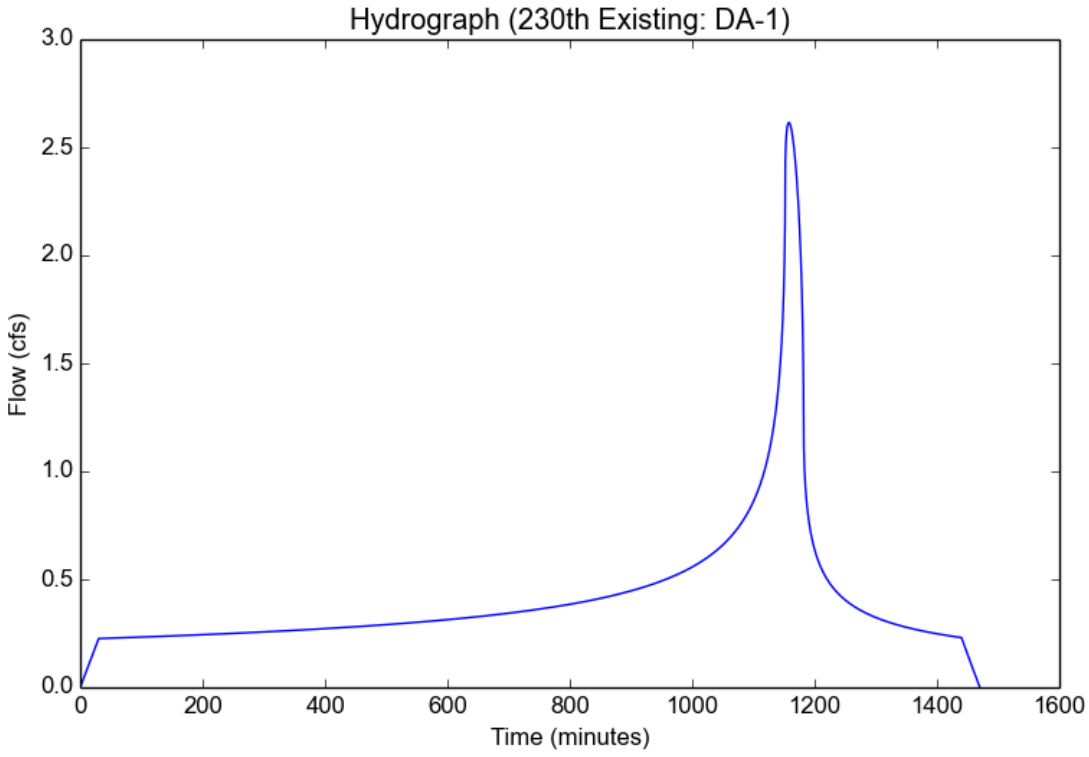
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	5-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (5-yr) Rainfall Depth (in)	3.0368
Peak Intensity (in/hr)	0.7805
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	2.6149
Burned Peak Flow Rate (cfs)	4.8594
24-Hr Clear Runoff Volume (ac-ft)	0.8408
24-Hr Clear Runoff Volume (cu-ft)	36625.9777



Peak Flow Hydrologic Analysis

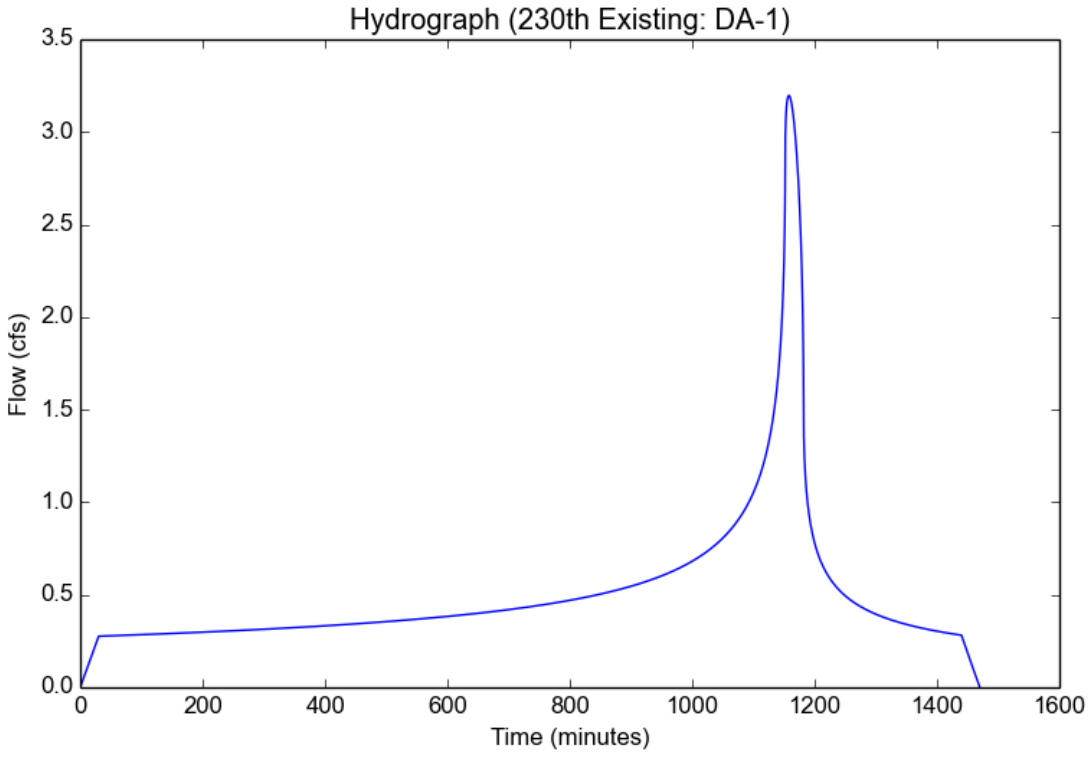
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	10-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7128
Peak Intensity (in/hr)	0.9543
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	3.197
Burned Peak Flow Rate (cfs)	6.0676
24-Hr Clear Runoff Volume (ac-ft)	1.028
24-Hr Clear Runoff Volume (cu-ft)	44779.0207



Peak Flow Hydrologic Analysis

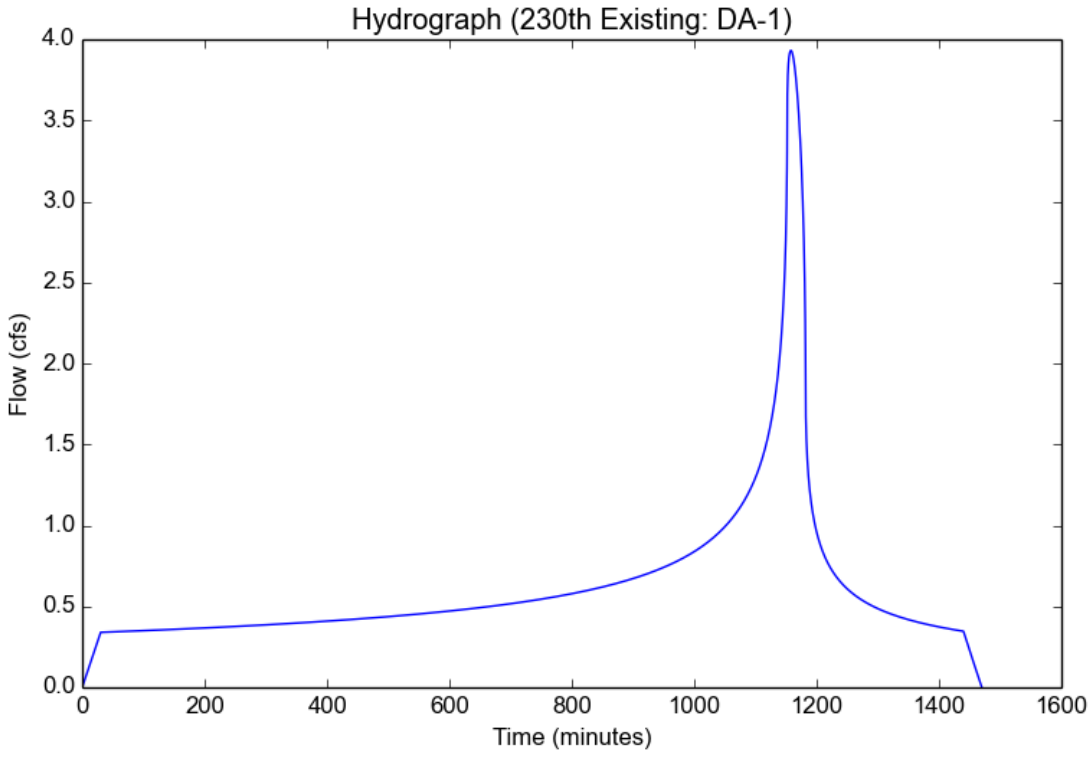
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	25-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5656
Peak Intensity (in/hr)	1.1735
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.108
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	3.9313
Burned Peak Flow Rate (cfs)	7.6181
24-Hr Clear Runoff Volume (ac-ft)	1.2641
24-Hr Clear Runoff Volume (cu-ft)	55064.398



Peak Flow Hydrologic Analysis

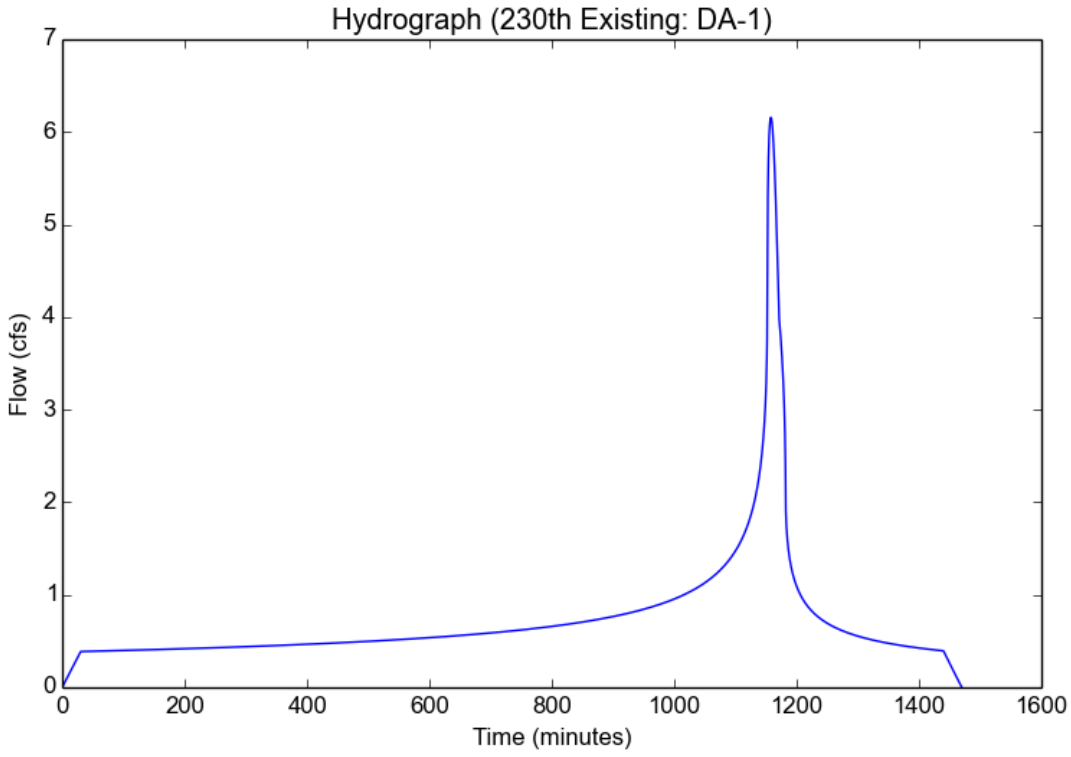
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Existing Conditions Output/
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Existing
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.01
Soil Type	134
Design Storm Frequency	50-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.2
Peak Intensity (in/hr)	1.3365
Undeveloped Runoff Coefficient (Cu)	0.1409
Developed Runoff Coefficient (Cd)	0.1485
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	6.157
Burned Peak Flow Rate (cfs)	10.2708
24-Hr Clear Runoff Volume (ac-ft)	1.4701
24-Hr Clear Runoff Volume (cu-ft)	64039.1753



Peak Flow Hydrologic Analysis

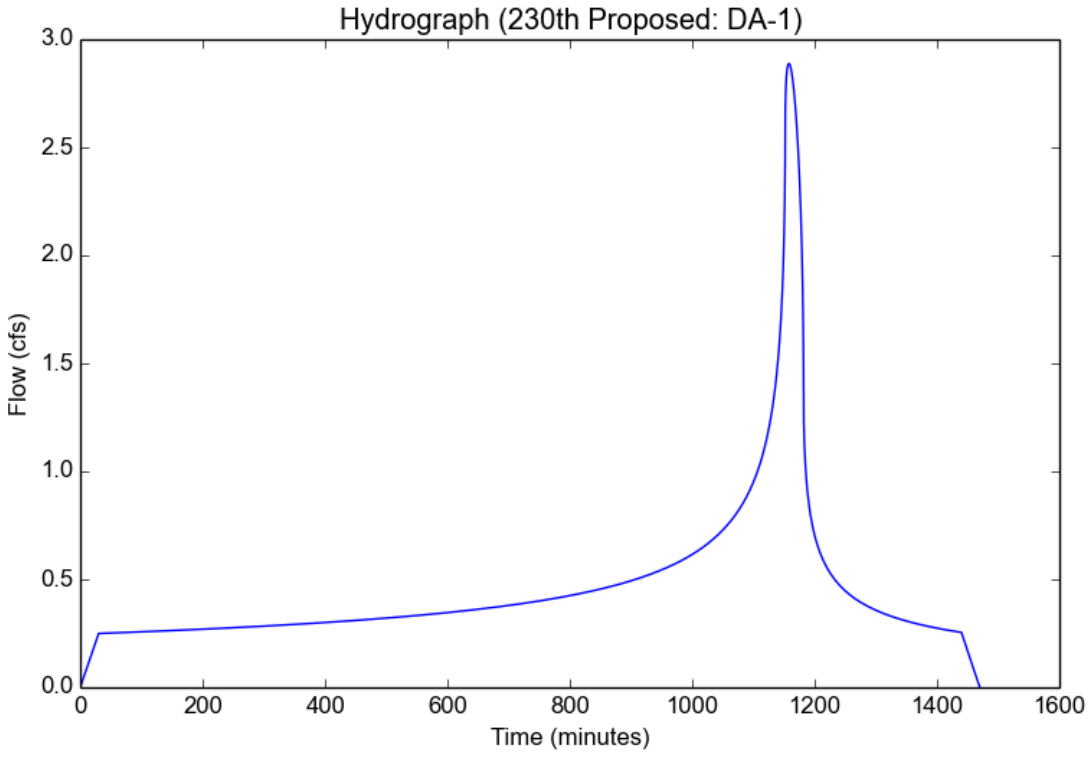
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	2-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (2-yr) Rainfall Depth (in)	2.0124
Peak Intensity (in/hr)	0.5172
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	2.888
Burned Peak Flow Rate (cfs)	4.1222
24-Hr Clear Runoff Volume (ac-ft)	0.9286
24-Hr Clear Runoff Volume (cu-ft)	40451.6363



Peak Flow Hydrologic Analysis

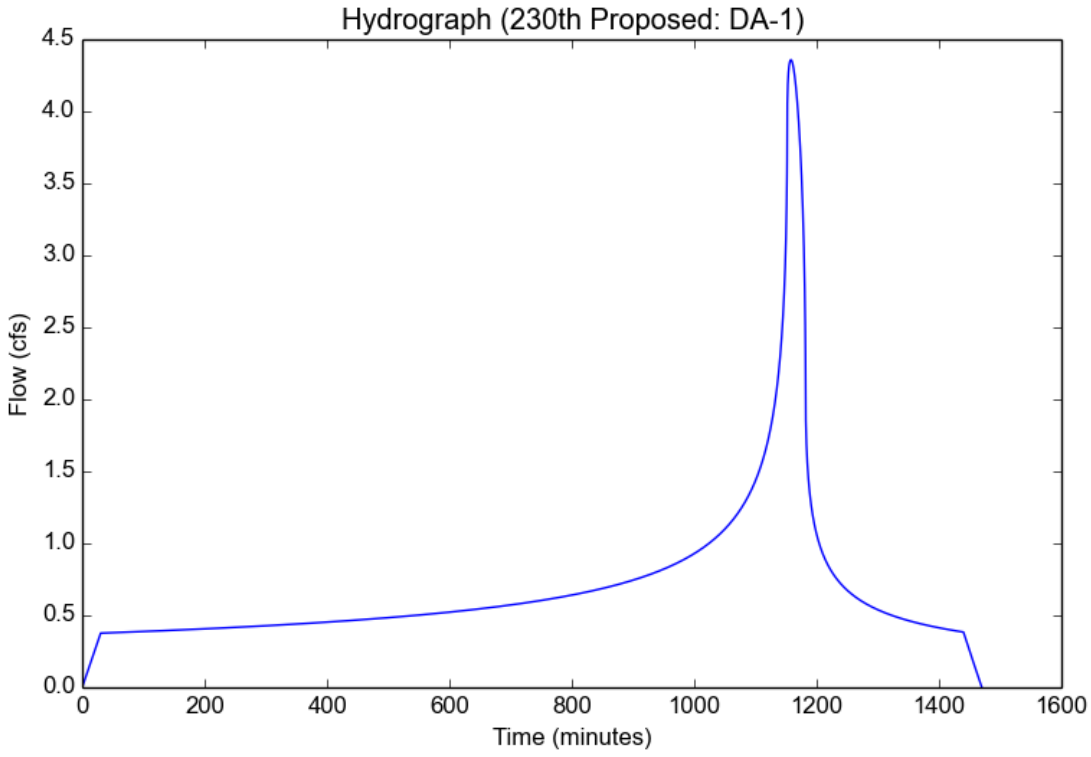
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	5-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (5-yr) Rainfall Depth (in)	3.0368
Peak Intensity (in/hr)	0.7805
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	4.3582
Burned Peak Flow Rate (cfs)	6.4215
24-Hr Clear Runoff Volume (ac-ft)	1.4014
24-Hr Clear Runoff Volume (cu-ft)	61043.2962



Peak Flow Hydrologic Analysis

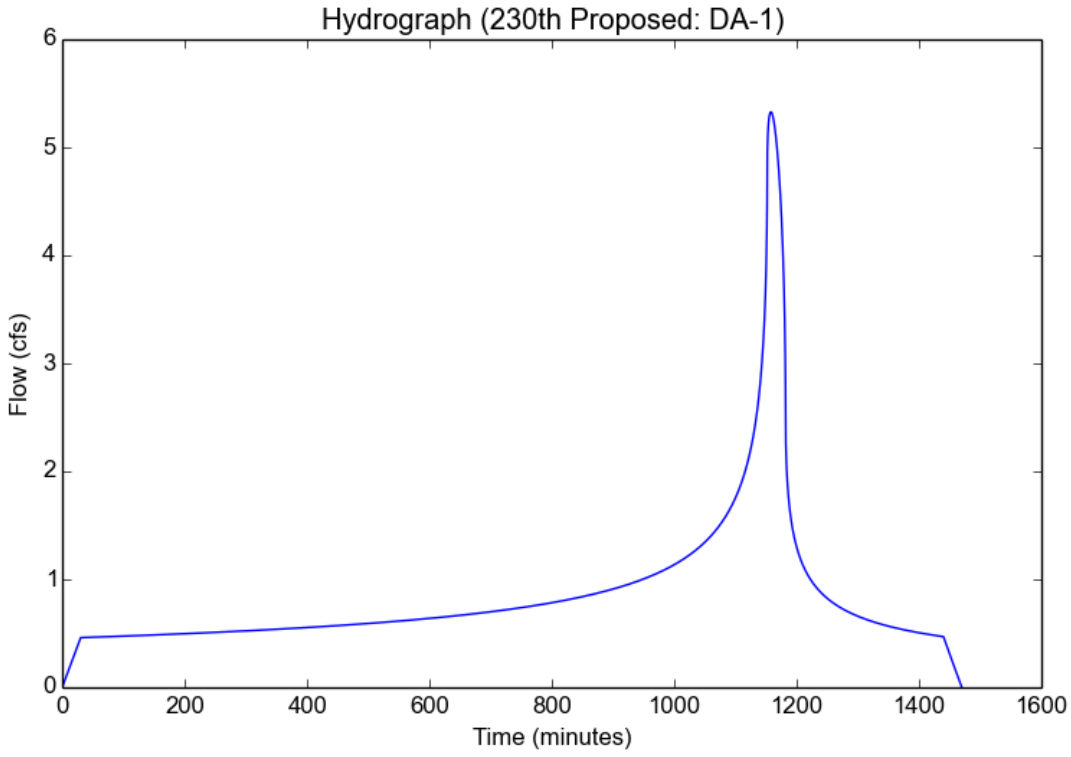
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	10-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7128
Peak Intensity (in/hr)	0.9543
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	5.3283
Burned Peak Flow Rate (cfs)	7.9673
24-Hr Clear Runoff Volume (ac-ft)	1.7133
24-Hr Clear Runoff Volume (cu-ft)	74631.7012



Peak Flow Hydrologic Analysis

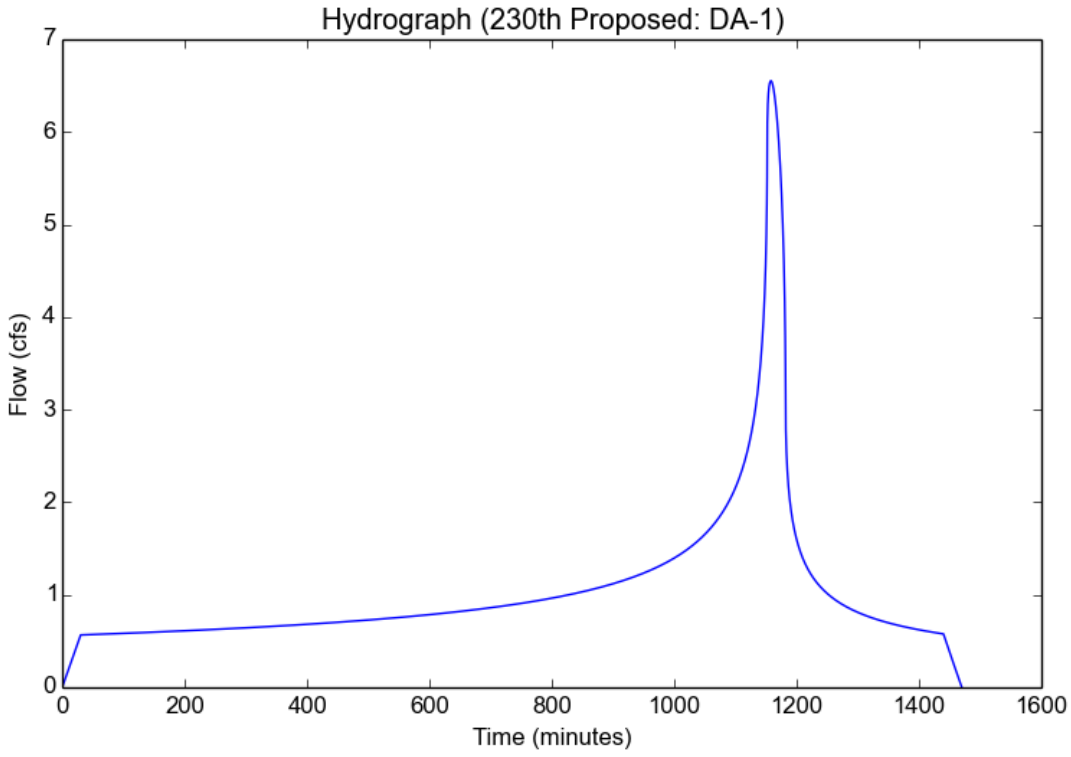
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	25-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5656
Peak Intensity (in/hr)	1.1735
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	6.5522
Burned Peak Flow Rate (cfs)	9.9413
24-Hr Clear Runoff Volume (ac-ft)	2.1068
24-Hr Clear Runoff Volume (cu-ft)	91773.9967



Peak Flow Hydrologic Analysis

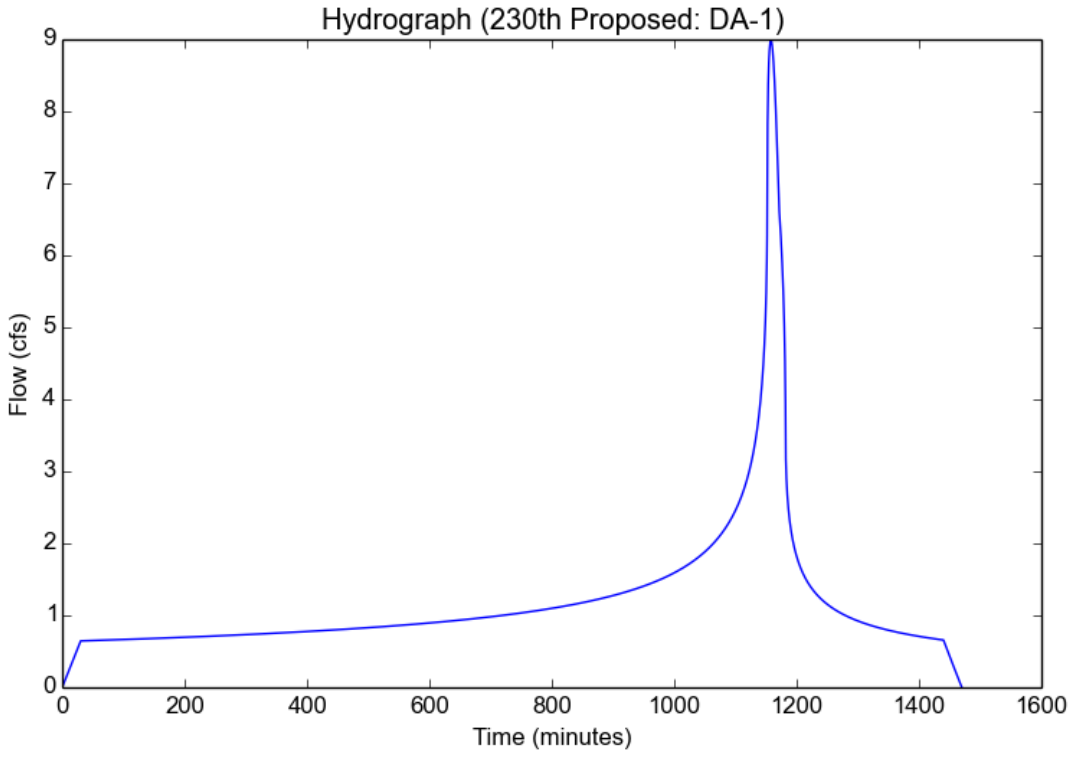
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	50-yr
Fire Factor	0.34
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.2
Peak Intensity (in/hr)	1.3365
Undeveloped Runoff Coefficient (Cu)	0.1409
Developed Runoff Coefficient (Cd)	0.2168
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	8.9894
Burned Peak Flow Rate (cfs)	12.7731
24-Hr Clear Runoff Volume (ac-ft)	2.4272
24-Hr Clear Runoff Volume (cu-ft)	105729.3376



Peak Flow Hydrologic Analysis

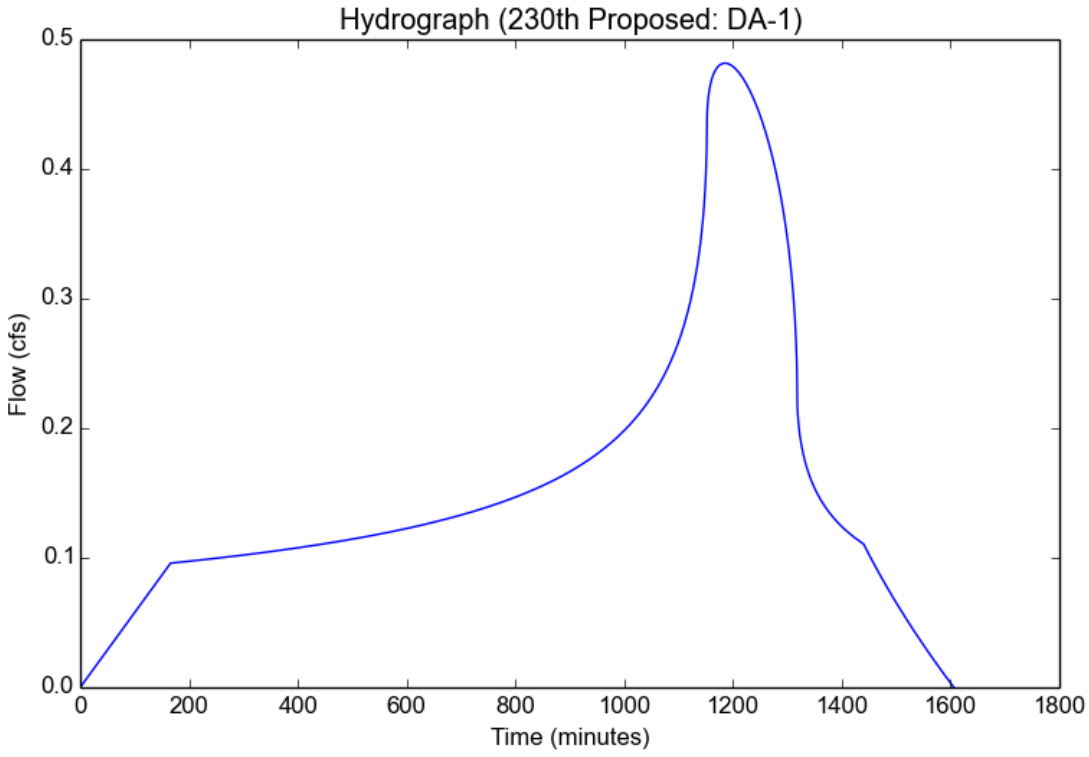
File location: K:/LDT_ENERGY/RPCA Ground-mount/099997002_RCPA_230th St Exhibit E/08_H&H/Hydrology/Calculations/Proposed Conditions Outpu
Version: HydroCalc 1.0.3

Input Parameters

Project Name	230th Proposed
Subarea ID	DA-1
Area (ac)	31.02
Flow Path Length (ft)	1478.0
Flow Path Slope (vft/hft)	0.012097429
0.75-inch Rainfall Depth (in)	0.75
Percent Impervious	0.1
Soil Type	134
Design Storm Frequency	0.75 inch storm
Fire Factor	0.34
LID	True

Output Results

Modeled (0.75 inch storm) Rainfall Depth (in)	0.75
Peak Intensity (in/hr)	0.0863
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.18
Time of Concentration (min)	166.0
Clear Peak Flow Rate (cfs)	0.4817
Burned Peak Flow Rate (cfs)	0.5792
24-Hr Clear Runoff Volume (ac-ft)	0.3462
24-Hr Clear Runoff Volume (cu-ft)	15081.5352



Appendix J

Noise Technical Memorandum

TECHNICAL MEMORANDUM

To:	RPCA Solar 12, LLC
From:	Olivia Chan and Mayra Garcia, Kimley-Horn and Associates, Inc.
Date:	April 10, 2025
Subject:	230th Street Solar Project – Noise Technical Memorandum

PURPOSE

The purpose of this memorandum is to assess potential impacts due to noise and vibration associated with construction and operation of the 230th Street Solar Project (Project), proposed to be located in unincorporated Los Angeles County, California.

PROJECT LOCATION

The Project would occupy approximately 31 acres (Project Site) of a 39-acre parcel (Los Angeles County Assessor Parcel Number [APN] 3278-025-001) generally located at 49560 230th Street W in Lancaster (see **Figure 1: Regional Vicinity Map**). The Project Site is bordered by W Avenue C 8 to the north, 227th Street W to the east, undeveloped open space and a residence to the south, and 230th Street W to the west (see **Figure 2: Local Vicinity Map**). Regional access to the Project Site is provided via State Route 138 (SR 138), approximately 0.25 miles to the south. Local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W.

PROJECT DESCRIPTION

RPCA Solar 12, LLC (Applicant) proposes to construct and operate a single-axis tracker ground-mounted photovoltaic (PV) community solar and battery energy storage system (BESS) with up to approximately 4.99 megawatts of alternating current (MWac) in capacity. The Applicant is requesting Conditional Use Permit (CUP) approval from the County. The Project would consist of the following components: solar modules, BESS, underground electrical conductors, access roads, and fencing. The Project would be interconnected to an existing electrical distribution system owned by Southern California Edison (SCE) located southwest of and adjacent to the Project Site along 230th Street W.

The Project would utilize approximately 14,000 solar modules and 40 string inverters. The modules would be manufactured off-site and delivered by truck in wooden crates or cardboard boxes. The single-axis tracking technology would allow the modules to efficiently track the sun throughout the day to maximize the efficiency of solar collection. The modules would be mounted on a steel racking system, which would be anchored into the ground using driven steel piers to a maximum depth of 8 to 12 feet below ground surface. The foundations securing the solar modules would be designed to withstand high winds and snow loads. The overall height of the array would be no more than 15 feet tall at maximum tilt.

The BESS would store electrical energy produced by the Project during the day and flexibility dispatch energy to the grid when it is most needed, typically in the evening. The BESS would be comprised of four battery banks with energy storage capacity located in the southwest corner of the PV array. Each battery bank would be approximately the size of a typical shipping container.

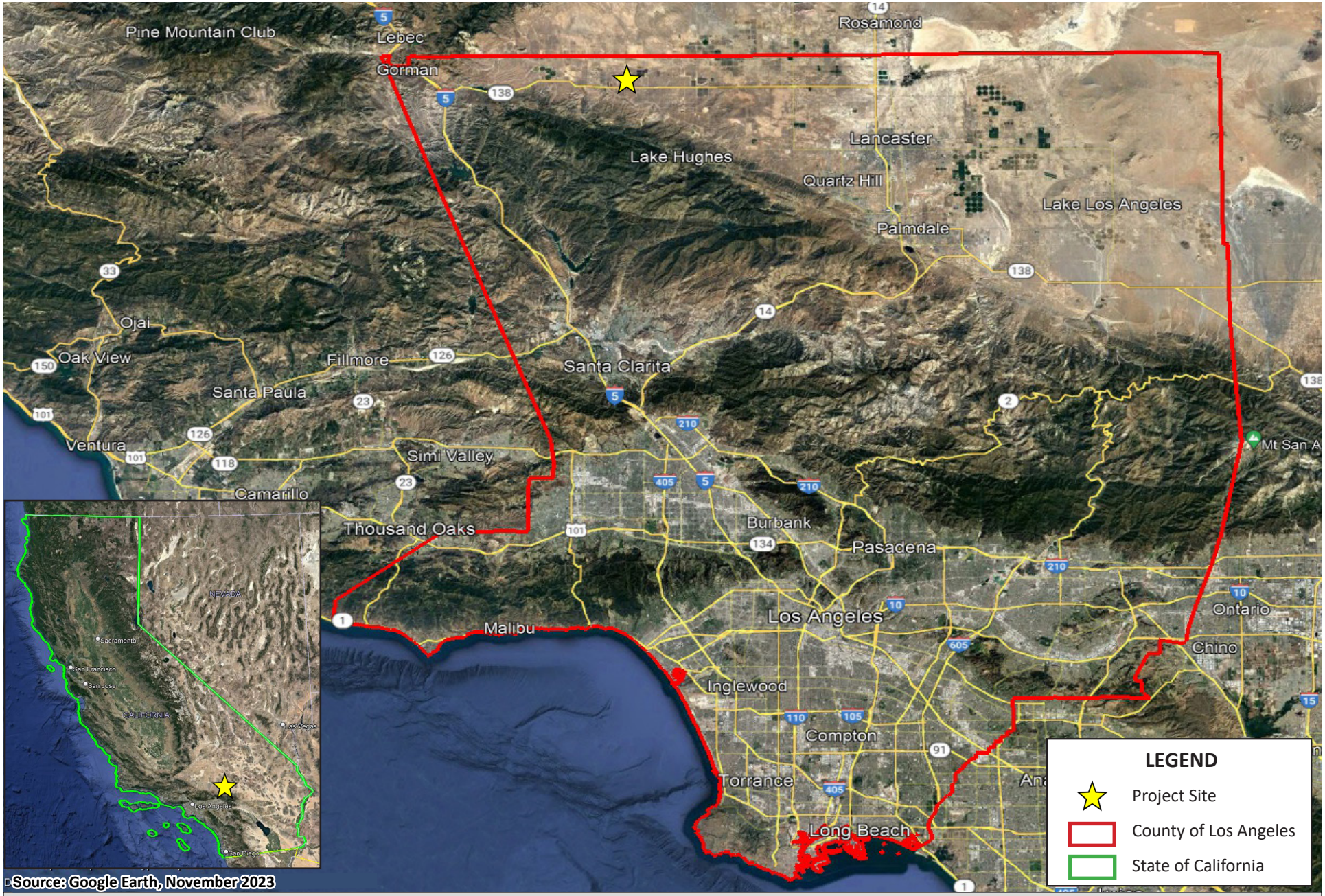


Figure 1: REGIONAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

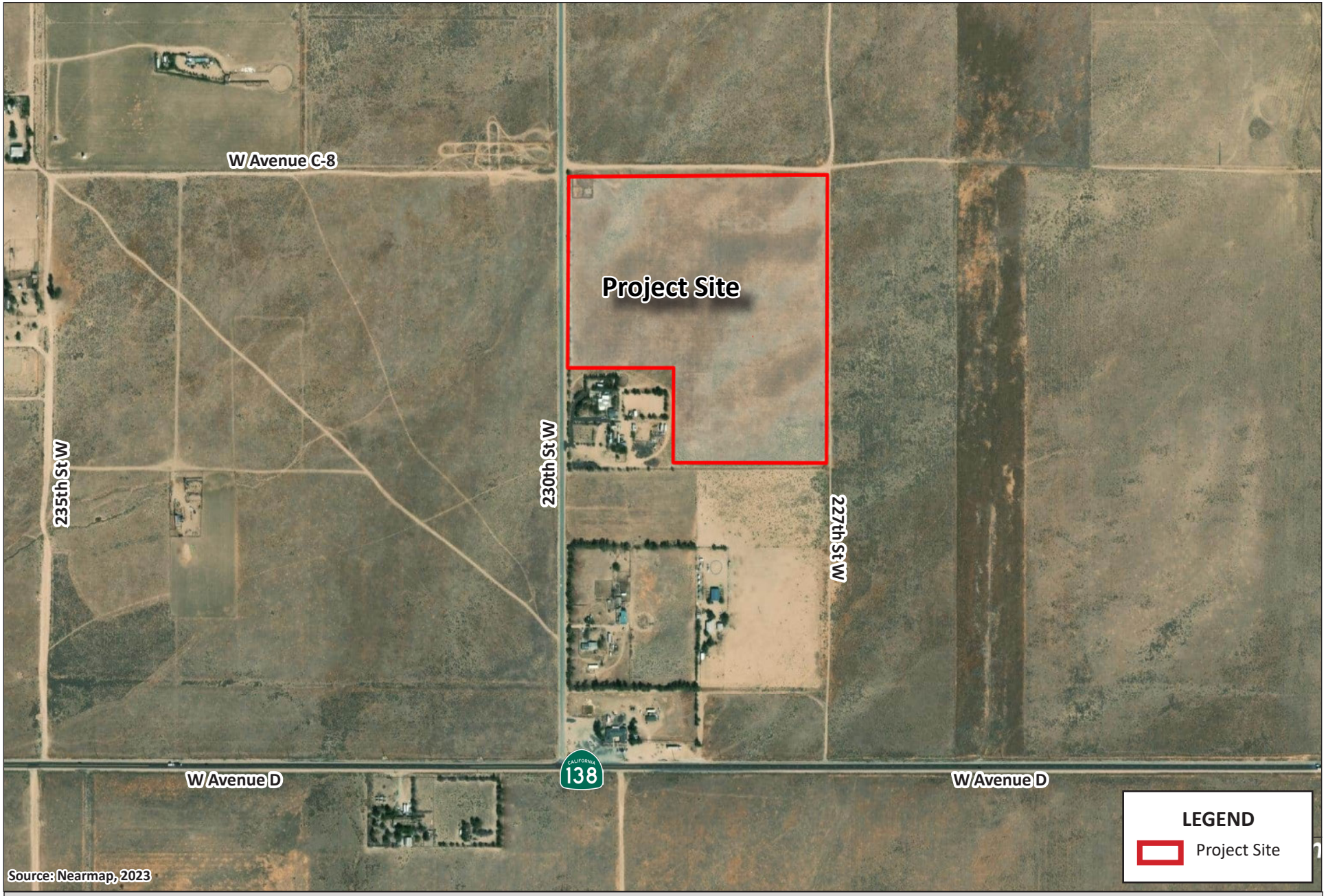


Figure 2: LOCAL VICINITY MAP
230th Street Solar Project
Initial Study/Mitigated Negative Declaration

NOT TO SCALE

Kimley»Horn

The BESS would include redundant safety measures, such as hydrogen detection, active ventilation, fire detection, and remote shutdown, fireproof insulation, and internal fire suppression technology. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Underground electrical conductors would be installed in trenches at a depth of up to 3 feet below surface in compliance with the National Electric Code. The conductors would be buried in either a polyvinylchloride (PVC) conduit or equivalent.

Site access would be provided via a new driveway constructed from 230th Street W. The driveway entrance would be upgraded using gravel, and would transition to native compacted soil. The access roads would encircle the whole array and bisect the Project Site in a west-east orientation from 230th Street W to the eastern Project Site Boundary. The access roads would provide an access path directly to the BESS. The roads would be wide enough to accommodate emergency vehicles and would be designed in compliance with County building and fire department standards. As little as 11.5 feet of space would be maintained between each row of solar modules for operations and maintenance access. The access roads would be placed such that no panel is more than 175 feet from a fire road and would connect directly to the BESS.

The Project proposes a 10-foot landscape buffer between the fence and the access road on the northern and western boundaries of the Project Site along 230th Street W and W Avenue C 8. The Project would be enclosed in a six foot-tall chain link fence with one foot of straight wire on top and one foot of wildlife pass on the bottom (for a total fence height of eight feet). The fence would have at least one vehicle access gate at the boundary of the array. The vehicle access gate would remain locked, except during operations and maintenance activities. A Knox box would be installed at the entrance gate to provide 24 hour access for emergency responders.

Construction

Project construction is anticipated to be completed over a period of approximately seven months beginning as early as December 2025 and ending as early as June 2026.[1] Project construction activities generally fall into six main categories: (1) demolition; (2) site preparation (vegetation clearing); (3) grading; (4) paving; (5) system installation; and (6) testing, commissioning, and cleanup.[2] Construction personnel will be divided between civil and electrical services. During Project construction, non-potable water would be required for common construction-related purposes, including but not limited dust suppression, soil compaction, and grading. No new water infrastructure would be proposed during Project construction. Temporary sanitary facilities would be placed on-site during construction.

[1] The technical analyses prepared for this IS/MND assessed Project impacts with a construction timeline of seven months beginning as early as January 2025 and ending as early as July 2025. Since the analyses were prepared, the Project construction timeline has since been updated to begin as early as December 2025 and end as early as June 2026. As construction vehicles and regulations are anticipated to be cleaner with less emissions in the future, and because the construction duration has not changed, the technical analyses provided herein are considered to be conservative.

[2] Note that the modeling does not account for testing, commissioning, and cleanup as heavy-duty construction equipment would not be utilized.

Operations

The Project would operate year-round. The Project Site would be unmanned, and no employees would report to the Project Site daily. Typical operations and maintenance (O&M) activities during Project operations include, but are not limited to, facility monitoring; administration and reporting; remote operations of inverters, BESS system, and other equipment; repair and maintenance of solar facilities; and periodic panel washing.

During Project O&M, it is anticipated that minimal water would be required for solar panel washing. Water consumption for washing panels is expected to be approximately 0.2 acre-feet (AF) of water per year, and all water would be trucked in from an off-site source. Water washing is by deluge (inundation of water), and no chemicals or other materials are used. It is estimated that the Project would require 6 maintenance-related visits per year and up to 4 solar panel and inverter washing visits per year, resulting in a total of approximately 10 operational roundtrips per year (20 one-way trips).

A 10,000-gallon water tank would be installed adjacent to the BESS and access gate for fire department use only. The water tank would include a low-level water local alarm. The water tank would be designed and located in compliance with Los Angeles County Fire Department standards. The water tank shall have a Los Angeles County Fire Department supply outlet of 2.5 inches in diameter with National Standard threads. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades.

Decommissioning

At the end of the Project's operational term, the Applicant may determine that the Project should be decommissioned and deconstructed. The Applicant will work with the County to ensure decommissioning complies with all applicable local, State, and federal requirements and best management practices (BMPs). The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters and related equipment. The exterior fencing would be removed, and materials would be recycled to the extent feasible. Project internal and access roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection, reuse, and recycling program would be utilized to promote reuse and recycling of Project components and minimize disposal in landfills.

ACOUSTIC FUNDAMENTALS

Sound and Environmental Noise

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g., air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. In acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receptor determine the sound level and characteristics of the noise perceived by the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this ambient noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness. **Table 1: Typical Noise Levels** provides typical noise levels.

Table 1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	– 110 –	Rock Band
Jet fly-over at 1,000 feet		
	– 100 –	
Gas lawnmower at 3 feet		
	– 90 –	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	– 80 –	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	**– 70 –**	Vacuum cleaner at 10 feet
Commercial area		Normal Speech at 3 feet
Heavy traffic at 300 feet	**– 60 –**	
		Large business office
Quiet urban daytime	**– 50 –**	Dishwasher in next room
Quiet urban nighttime	**– 40 –**	Theater, large conference room (background)
Quiet suburban nighttime		
	– 30 –	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	– 20 –	
		Broadcast/recording studio
	– 10 –	
Lowest threshold of human hearing	**– 0 –**	Lowest threshold of human hearing

Source: California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

Noise Descriptors

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The equivalent noise level (L_{eq}) represents the continuous sound pressure level over the measurement period, while the day-night noise level (L_{dn}) and Community Noise Equivalent Level (CNEL) are measures of energy average during a 24-hour period, with dB weighted sound levels from 7:00 p.m. to 7:00 a.m. Most commonly, environmental sounds are described in terms of an average level (L_{eq}) that has the same acoustical energy as the summation of all the time-varying events. Each is applicable to this analysis and defined in **Table 2: Definitions of Acoustical Terms**.

Table 2: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

The A-weighted decibel (dBA) sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports.

A-Weighted Decibels

The perceived loudness of sound is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA sound levels and the way the human ear perceives sound. For this reason, the dBA sound level has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of dBA, but are expressed as dB, unless otherwise noted.

Addition of Decibels

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound and twice as loud as a 60 dBA sound.[3] When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions.[4] Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dBA.

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics.[5] No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed.

---

[3] Federal Highway Administration (FHWA), *Noise Fundamentals,* 2017, https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm, accessed December 13, 2023

[4] Ibid.

[5] California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, page 2-29.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA.[6] The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by weighted average noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA.[7] Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted[8]:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10 dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Effects of Noise on People

Hearing Loss. While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing

---

[6] James P. Cowan, *Handbook of Environmental Acoustics,* 1994.

[7] Compiled from James P. Cowan, *Handbook of Environmental Acoustics,* 1994 and Cyril M. Harris, Handbook of Noise Control, 1979.

[8] Compiled from California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, and FHWA, *Noise Fundamentals,* 2017.

loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance. Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.[9]

GROUNDBORNE VIBRATION

Sources of groundborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 3: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in **Table 3** should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

[9] Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Table 3: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations			
Maximum PPV (in/sec)	**Vibration Annoyance Potential Criteria**	**Vibration Damage Potential Threshold Criteria**	**FTA Vibration Damage Criteria**
0.008	--	Extremely fragile historic buildings, ruins, ancient monuments	--
0.01	Barely Perceptible	--	--
0.04	Distinctly Perceptible	--	--
0.10	Strongly Perceptible	Fragile buildings	--
0.12	--	--	Buildings extremely susceptible to vibration damage
0.2	--	--	Non-engineered timber and masonry buildings
0.25	--	Historic and some old buildings	--
0.3	--	Older residential structures	Engineered concrete and masonry (no plaster)
0.4	Severe	--	--
0.5	--	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel or timber (no plaster)
PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration			
Source: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020 and Federal Transit Administration, *Transit Noise and Vibration Assessment Manual*, 2018.			

Ground vibration can be a concern in instances where buildings shake and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment. For the purposes of this analysis, a PPV descriptor with units of inches per second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

EXISTING NOISE SETTING

Existing Stationary Noise Levels

The Project Site is located within a rural area. The primary sources of stationary noise in the Project vicinity are related to existing traffic along East Palmdale Boulevard and 230th Street E located west of the Project Site and W Avenue C 8 located south of the proposed Project Site. The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Existing Ambient Noise Levels

To quantify existing ambient noise levels in the Project vicinity, Kimley-Horn and Associates conducted four noise measurements on October 9, 2023; refer to **Table 4: Noise Measurements** and **Figure 3: Noise Measurement Locations**. The noise measurement sites were representative of typical existing noise exposure within the Project vicinity. The fifteen-minute measurements were taken between 9:18 a.m. and 10:33 a.m. These short-term (L_{eq}) measurements are considered representative of the noise levels in the Project vicinity.

Table 4: Noise Measurements						
Site No.	**Location**	**L_{eq} (dBA)**	**L_{min} (dBA)**	**L_{max} (dBA)**	**Peak (dBA)**	**Time**
1	Southwest corner of Project Site on 230th Street West	54.3	26.3	77.1	92.6	9:18 a.m.
2	Northwest corner of Project Site between W Avenue C 8 and 230th Street West	30.4	23.3	46.1	78.4	9:41. a.m.
3	Northeast corner of the Project Site W Avenue C 8	29.7	23.2	41.8	75.7	10:03 a.m.
4	Southeast of the Project Site on W Avenue D	48.3	30.4	57.1	83.2	10:33 a.m.
Source: Kimley-Horn and Associates, October 9, 2023 (refer to **Appendix A: Noise Data**).						

Meteorological conditions consisted of clear skies, warm temperatures, with light wind speeds (5 miles per hour), and low humidity. Measured daytime noise levels ranged from 29.7 to 54.3 dBA L_{eq}. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters.

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include single and multiple family residential areas, group homes, parks, and open space lands where quiet is a basis for use. Additional land uses such as schools, churches, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptor to the Project Site is a residential use located approximately 110 feet to the south; refer to **Figure 3**.

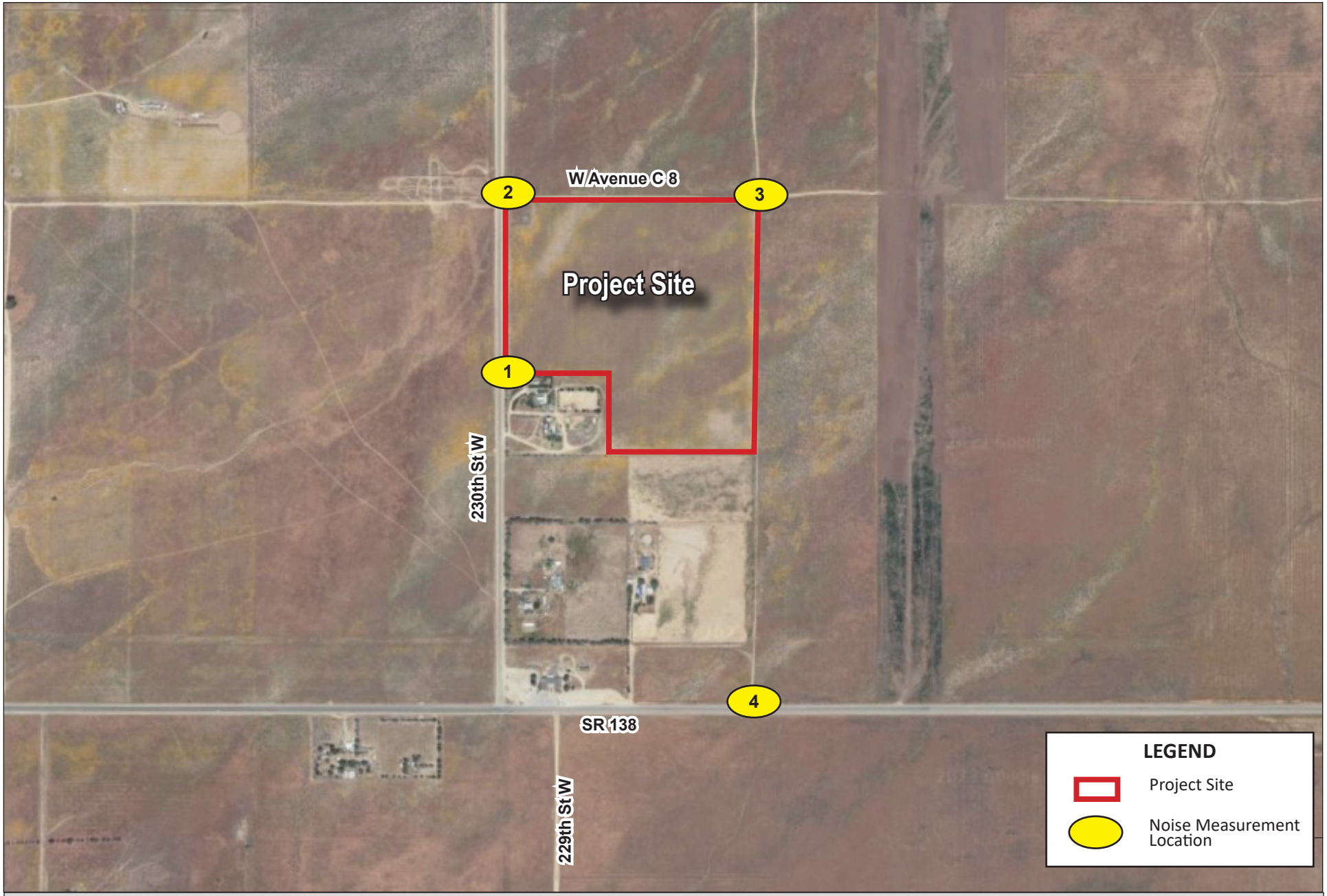


Figure 3: Noise Measurement Locations
230th Street Solar Project

NOT TO SCALE

Kimley»Horn

REGULATORY FRAMEWORK

Federal

Occupational Safety and Health Administration (OSHA)

With the Occupational Safety and Health Act of 1970, Congress created OSHA to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance. The Act requires protection against the effects of noise exposure for employees when sound levels exceed 90 dBA over an eight-hour period. If such controls fail to reduce sound levels to within acceptable levels, personal protective equipment is required. Additionally, a Hearing Conservation Program must be instituted by the employers whenever employee noise exposure equals or exceeds an eight-hour time-weighted average sound level of 85 dBA. The Hearing Conservation Program requirements consist of periodic area and personal noise monitoring, performance and evaluation of audiograms, provision of hearing protection, annual employee training, and record keeping.

State

California Noise Control Act of 1973

California Health and Safety Code (HSC) Sections 46000 through 46080, known as the California Noise Control Act, find that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The California Noise Control Act also finds that there is a continuous and increasing bombardment of noise in urban, suburban, and rural areas. The California Noise Control Act declares that the State has a responsibility to protect the health and welfare of its citizens through the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare.

State Office of Planning and Research

The State Office of Planning and Research's *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *Noise Element Guidelines* contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Local

Los Angeles County General Plan 2035

The Los Angeles County General Plan 2035, updated July 14, 2022, serves as a set of plans and tools for unincorporated areas in Los Angeles County. The following policies in the Noise Element provide specific noise compatibility standards:

Noise Element

Goal N 1: The reduction of excessive noise impacts.

Policy N 1.1: Utilize land uses to buffer noise sensitive uses from sources of adverse noise impacts.

Policy N. 1.5: Ensure compliance with the jurisdiction of State Noise Insulation Standards (Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code), such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or L_{dn}) noise exposure contours.

Policy N 1.9: Require construction of suitable noise attenuation barriers on noise sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.

Policy N 1.11: Maximize buffer distances and design and orient sensitive receptor structures (hospitals, residents, etc.) to prevent noise and vibration transfer from commercial/light industrial uses.

The Los Angeles County General Plan Table 11.2 (Los Angeles County Community Noise Criteria) establishes noise standards for various land uses.

County of Los Angeles Exterior Noise Standards (by Noise Zone)			
Noise Zone	**Designated Noise Zone Land Use (Receptor Property)**	**Time Interval**	**Exterior Noise Level (dB)**
I	Noise Sensitive	Anytime	45
II	Residential	10 p.m. to 7 a.m. (nighttime)	45
		7 a.m. to 10 p.m. (daytime)	50
III	Commercial	10 p.m. to 7 a.m. (nighttime)	55
		7 a.m. to 10 p.m. (daytime)	65
IV	Industrial	Anytime	70

Los Angeles County Code of Ordinances

The Los Angeles County Code of Ordinances Section 12.08.440 *Construction Noise* establishes general sound level standards during construction. Pursuant to Section 12.08.440, operating or causing the operation of any tools or equipment between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, except for emergency work of public services utilities is prohibited. Allowable noise levels at single-family residential land uses are 75 dBA during daytime hours except Sundays and legal holidays and 7:00 a.m. to 8:00 p.m. and 60 dBA nighttime from 8:00 p.m. to 700 a.m. and all day Sunday and legal holidays.[10]

[10] Los Angeles County Code of Ordinances, Section 12.08.440 *Construction Noise,* https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT12ENPR_CH12.08NOCO, accessed December 13, 2023.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Project would have a significant impact in regard to noise and vibration if one or more of the following would occur:

Threshold a): Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (refer to Impact NOI-1);

Threshold b): Generation of excessive groundborne vibration or groundborne noise levels (refer to Impact NOI-2); or

Threshold c): For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels (refer to Impact NOI-3).

IMPACT ANALYSIS

NOI-1 Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Construction Activities

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation). Noise generated by construction equipment, including earth movers, and material handlers, can reach high levels. During construction, exterior noise levels could affect the nearest sensitive receptors in the vicinity of the construction site. The nearest sensitive receptor is a residential use located approximately 110 feet to the south of the Project Site. It is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to the sensitive receptor.

Project construction is anticipated to be completed over a period of approximately seven months. The Project involves construction activities associated with demolition, site preparation, grading, paving, construction/installation, and PV vendor trips. **Table 5: Typical Construction Noise Levels**, reflects maximum sound levels (L_{max}) that could be expected from the equipment-types listed at a reference distance of 50 feet from the noise source, which are the highest individual sound occurring at an individual time period. Operating cycles for the listed types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other sources of construction noise could include random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Table 5: Typical Construction Noise Levels	
Equipment	**Typical Noise Level (dBA) at 50 feet from Source (L_{max})**
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Mounted Impact Hammer (hoe ram)	90
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scraper	85
Shovel	82
Truck	84
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018; Federal Highway Administration, *Roadway Construction Noise Model User's Guide*, January 2006.	

The FHWA Roadway Construction Noise Model (RCNM) was used to calculate the worst-case construction noise levels at the nearest sensitive receptor in the vicinity of the Project Site during construction. The modeled receptor location represents the closest existing receiving land use to Project construction activities. Noise levels at other sensitive receptors surrounding the Project Site would be located further away and would experience lower construction noise levels than the closest receptors modeled.

The Los Angeles County Code of Ordinances establishes quantitative construction noise standards. Construction activities shall not exceed a threshold of 75 dBA at the nearest sensitive receptor.[11]

The noise levels calculated in **Table 6: Project Construction Noise Levels** show estimated noise levels for the worst-case construction noise scenario without accounting for attenuation from intervening barriers, structures, or topography. The nearest noise sensitive receptor (residential use) is located approximately 110 feet to the south of the Project Site. Following the Federal Transit Administration (FTA) methodology, when calculating construction noise, all equipment is assumed to operate at the center of the Project because equipment would operate throughout the Project Site and not at a fixed location for extended

[11] Los Angeles County Code of Ordinances, Section 12.08.440 Construction Noise, https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT12ENPR_CH12.08NOCO_PT4SPNORE_12.08.440CONO, accessed December 19, 2023.

periods of time. Therefore, the distance used in the RCNM model was 718 feet to the nearest sensitive receptor (i.e., residential use) to the south of the Project Site.

Other receptors in the Project vicinity would be located further away and would experience lower construction noise levels than the closest receptor modeled. All construction equipment was assumed to operate simultaneously to represent a worst-case noise scenario as construction activities would routinely be spread throughout the construction site and would operate at different intervals.

Table 6: Project Construction Noise Levels

Construction Phase	Land Use	Receptor Location			Noise Threshold [2] (dBA L_{eq})	Exceeded?
		Direction	Distance (feet)	Worst Case Modeled Exterior Noise Level (dBA L_{eq})		
Demolition	Residential	South	718	63.3	75	**No**
Site Preparation	Residential	South	718	58.9	75	**No**
Grading	Residential	South	718	59.2	75	**No**
Construction/Installation	Residential	South	718	71.8	75	**No**
PV Vendor Trips	Residential	South	718	56.9	75	**No**
Paving	Residential	South	718	49.9	75	**No**

1. Per the methodology described in the FTA *Transit Noise and Vibration Impact Assessment Manual* (September 2018), distances are measured from the nearby sensitive receptor property line to the center of the Project construction site.
2. The Los Angeles County Code of Ordinances Section 12.08.440 Construction Noise establishes a threshold of 75 dBA for residential uses.

Source: Federal Highway Administration, *Roadway Construction Noise Model,* 2006. Refer to **Appendix A** for noise modeling results.

According to the Los Angeles County Code of Ordinances, construction activities shall be limited to the daytime hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday. Construction is prohibited on Sundays and on holidays.[12] Los Angeles County establishes a quantitative construction noise standards of 75 dBA for residential uses.

As depicted in **Table 6**, the closest sensitive receptor could be exposed to temporary and intermittent noise levels up to 72 dBA during construction/Installation which would not exceed the County's construction noise standard of 75 dBA L_{eq}. As previously noted, noise levels presented in **Table 6** are conservative, as these noise levels assume the simultaneous operation of all construction equipment at the same precise location. More likely, construction equipment would be used throughout the Project Site and would not be concentrated at one location within the Project Site. Therefore, impacts would be less than significant.

Construction Traffic

Construction activities would also cause increased noise along access routes to and from the Project Site due to movement of equipment and workers, as well as hauling trips. On-site soils are expected to balance, and no import or export of soils is anticipated. It is anticipated that construction worker trips would be a maximum of 41 total daily trips, water truck trips from off-site wells would be a maximum of

[12] Los Angeles County Code of Ordinances Section 12.08.440 *Construction Noise*.

11 daily trips, and vendor trips would be a maximum of 2 daily trips (PV panel vendor trips).[13,14] As a result, mobile source noise would increase along access routes to and from the Project Site during construction. However, mobile traffic noise from construction trips would be temporary and would cease upon completion of Project construction. Further, construction activities shall be limited to the daytime hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday. Construction is prohibited on Sundays and on holidays Therefore, upon compliance with the County's allowable construction hours, short-term noise impacts from construction traffic would be less than significant.

Operations

Project O&M would include permanent and temporary noise sources associated with the solar PV systems, electrical collection lines, BESS, and maintenance activities. For purposes of this analysis, noise regulations included in the Los Angeles County Code of Ordinances have been utilized.

Solar PV Systems

The solar PV arrays would include operation of single-axis tracking systems. Single-axis tracking systems employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise.

Noise from the tracker motor is approximately 40 dBA at 10 feet from the source.[15] During daylight hours, the tracking system motors would operate for a short period of time (normally two seconds) and pause for a longer period of time (about five minutes) before operating again. After sunset and before sunrise the next day, the array must reset to face easterly; this reset motion occurs once daily and takes approximately three minutes. The nearest sensitive noise receptor to any tracker would be the residential use located approximately 110 feet to the south of the Project Site. At this distance, noise levels associated with solar PV array tracker would be inaudible. Impacts would be less than significant.

Inverters and Transformers

Additional permanent noise sources from the Project Site would include small-scale inverters, AC combiner boxes, medium voltage transformers, and/or medium voltage switchgear. Small-scale inverters typically generate 65 dBA at 1 meter (3.28 feet)[16] and medium voltage transformers typically generate 63 dBA at 1 meter (3.28 feet).[17] The inverter, transformer, and switchpad would be located within the center portion of the Project Site. As the nearest sensitive receptor could be located as close as 110 feet south from the Project boundary line, small-scale inverter and medium voltage transformer noise levels would be inaudible at the nearest sensitive receptor.

[13] Worker trips are based on the peak construction workforce (70 individuals) with the Los Angeles County Average Vehicle Occupancy rate for home-work applied (Source: Southern California Association of Governments, *Year 2000 Post-Census Regional Travel Survey*, *Table 12*, dated 2003.)

[14] Water truck trips and vendor trips (construction materials and PV panels) are based on similar sized solar sites.

[15] San Bernardino County, Desert Breeze Solar Project Draft Environmental Impact Report, September 2023.

[16] San Bernardino County, Desert Breeze Solar Project Draft Environmental Impact Report.

[17] National Electrical Manufacturers Association, *NEMA TR 1-2013 Transformers, Step Voltage Regulators and Reactors,* 2014.

Electrical Collection Lines

The Project includes installation of underground electrical collection lines. Therefore, noise levels associated with electrical collection lines would be inaudible at the nearest sensitive receptor, located approximately 110 feet to the south of the Project Site. Impacts would be less than significant.

Battery Energy Storage System (BESS)

The primary noise source associated with BESS operations would be the use of heating, ventilation, and air conditioning (HVAC) units (the BESS does not generate noise itself). The Project includes a BESS, which would require multiple HVAC units to operate simultaneously. Based on standard HVAC units for other energy storage projects, a reference level of 52.3 dBA at a distance of 50 feet during full operation has been assumed.[18,19,20] The BESS would be located in the southwest area of the Project Site, approximately 130 feet from the residential use to the south. Therefore, a distance of 130 feet measured from the nearest BESS unit at the southwest corner of the Project Site to the nearest sensitive receptor was used for the calculated BESS HVAC noise levels. At this distance, noise levels from the BESS HVAC units are estimated at approximately 44.0 dBA. Therefore, the Project would not exceed County daytime or nighttime noise standards of 50 dBA and 45 dBA, respectively. Impacts would be less than significant, and no mitigation is required.

Maintenance Activities

Panel Washing Noise. The Project would require panel washing up to four times per year. Panel washing activities would not require power washing equipment and would consist of hand washing. Noise related to the water trucks is discussed below. Therefore, negligible noise levels from panel washing would result. Impacts would be less than significant.

Vehicular Noise. The Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities and would not increase personnel daily trips external to the site when compared to existing conditions. As previously stated, the Project is expected to generate a total of approximately 10 operational roundtrips per year (20 one-way trips). These activities are not expected to occur on a daily basis and would not generate a significant amount of traffic or create a substantial increase of vehicular noise in the area. Any increase in traffic would be minimal and sporadic and only occur during daytime hours. On a worst-case day, one maintenance truck and one water truck would travel to the Project Site at the same time. Assuming that two passenger vehicles, one medium-duty truck, and one heavy-duty truck would visit the Project Site at the same time, a noise level of 36.6 dBA would be generated at approximately 100 feet. This noise level would not exceed the County's daytime threshold of 50 dBA; therefore, impacts from vehicular noise would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities would result in a temporary increase in ambient noise levels in the Project vicinity. Given the fact that much of the

[18] Kern County Planning and Natural Resources Department, *Acoustical Assessment for the AVEP Project*, August 5, 2020.
[19] The reference noise level has been adjusted to account for four HVAC units. See **Appendix A**.
[20] The Project could potentially include the use of a liquid-cooled BESS system, which would eliminate the need for HVAC equipment. Traditional HVAC has been assumed in the analysis as a worst-case assumption.

construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable to assume that noise generated from decommissioning activities would be similar in nature to construction activities. Similar to the construction noise analysis above, Project decommissioning would potentially result in increased noise levels compared to existing conditions. However, the Los Angeles County Code of Ordinances states that construction activities shall be limited to the daytime hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday and construction is prohibited on Sundays and on Holidays. Therefore, upon compliance with the County's allowable construction hours; short-term noise impacts from decommissioning activities would be less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

NOI-2 Would the Project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction

Project construction would include demolition, site preparation, grading, construction/installation, PV vendor trips, and paving (access road installation) and would not require blasting. While these construction activities would result in groundborne vibration, such groundborne vibration would attenuate rapidly from the source and would not generally be perceptible beyond the boundaries of the Project Site.

The FTA has published standard vibration velocities for construction equipment operations. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. The California Department of Transportation (Caltrans) and the FTA have identified various vibration damage criteria for different building classes. As the closest receptor is a residential use, this evaluation uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 in/sec PPV and the human annoyance criterion of 0.04 in/sec PPV; refer to **Table 3**. The vibration produced by construction equipment, is illustrated in **Table 7: Typical Vibration Levels for Common Construction Equipment**.

Table 7: Typical Vibration Levels for Common Construction Equipment

Equipment	Reference PPV at 25 feet (in/sec)	Approximate PPV at 110 feet (in/sec)[1]
Vibratory Compactor/Roller	0.21	0.023
Large bulldozer	0.089	0.010
Loaded trucks	0.076	0.008
Small bulldozer	0.003	<0.001

Notes:
1. Calculated using the following formula:
   PPV equip = PPVref x $(25/D)^{1.5}$
   where: PPV (equip) = the peak particle velocity in inch-per-second of the equipment adjusted for the distance

Table 7: Typical Vibration Levels for Common Construction Equipment
PPV (ref) = the reference vibration level in inch-per-second from Table 7-4 of the FTA Transit Noise and Vibration Impact Assessment Manual D = the distance from the equipment to the receiver Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Groundborne noise and vibration decreases rapidly with distance. As indicated in **Table 7**, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from <0.001 to 0.023 in/sec PPV at 110 feet (measured from the edge of construction activity to the nearest structure) south of the Project Site. At this distance, vibration velocities would be imperceptible (i.e., up to 0.023 in/sec PPV for a vibratory roller at the Project Site). Therefore, the 0.2 in/sec PPV architectural damage significance threshold and the 0.04 in/sec PPV human annoyance criteria would not be exceeded as a result of Project construction activities. Thus, no sources of groundborne vibration or groundborne noise would be expected to affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

Operations

The Project would have O&M components, such as HVAC systems for the BESS, maintenance vehicles, small-scale inverters, and medium voltage transformers, that would not generate noticeable groundborne vibration levels. Project operations would not involve any sources capable of generating perceptible levels of vibration in the surrounding area. There would be no permanent source or potential to change vibration levels, except during unscheduled maintenance or repair activities, which would be similar to construction activities. Regular maintenance trucks could generate 0.076 in/sec PPV a distance of 25 feet (refer **Table 7**). Pursuant to the FTA Transit Noise and Vibration Impact Assessment Manual, groundborne vibration should not exceed 0.2 in/sec PPV at the nearest property line within a residential, commercial, and industrial land use zoning district. Land use zoning districts surrounding the Project Site include Heavy Agriculture Zoning (A-2-2), which allows residential uses.[21] Although residential land use zoning districts surround the Project Site, regular maintenance trucks would not generate groundborne vibration levels exceeding the FTA's 0.2 in/sec PPV vibration threshold at structures located along Project area roadways. As the nearest vibration-sensitive receptor is located approximately 110 feet (measured from the edge of construction activity to the nearest structure) south from the Project Site and structures in the Project area are not located nearer than 25 feet to roadways, operational vibration levels at the nearest off-site receptors would be imperceptible. Thus, the FTA's 0.2 in/sec PPV vibration threshold would not be exceeded, and impacts would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities could result in temporary vibration impacts at close distances. Given the fact that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable

[21] Los Angeles County Code of Ordinances, Section 22.16.020 Agricultural Zones Designation. https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT22PLZO_DIV3ZO_CH22.16AGOPSPREREWAZO_22.16.020AGZODE, accessed December 19, 2023.

to assume that vibration generated from decommissioning activities would be similar in nature to construction activities. As with the construction activities described above, decommissioning activities would not be expected to generate groundborne noise that would affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

Impact Determination: Less Than Significant Impact.

Mitigation Measures: No mitigation is required.

NOI-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

The nearest airport to the Project Site is the Grey Butte Field Airport located approximately 64 miles to the southeast. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels. No impact would occur in this regard.

Impact Determination: No Impact.

Mitigation Measures: No mitigation is required.

CUMULATIVE IMPACTS

Construction Noise

The Project's construction activities would not result in a substantial temporary increase in ambient noise levels at the nearest sensitive receptors. Construction noise would be periodic and temporary noise impacts that would cease upon completion of construction activities. The Project would contribute to other proximate construction project noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the Project's construction-related noise impacts would be less than significant and would be required to comply with the Los Angeles County General Plan and the Los Angeles County Code of Ordinances. The combination of the Project together with other related present and reasonably foreseeable developments in the Project vicinity could involve actions with the potential to result in noise impacts. However, construction noise impacts for each cumulative project would be mitigated through compliance with the County's standards and any necessary mitigation measures identified through the County's development review process. Thus, construction noise impacts would not be cumulatively considerable, and impacts would be less than significant.

Operational Noise

Project operation would not result in a substantial permanent increase in ambient noise levels from on-site stationary or off-site mobile traffic noise sources. Similarly, cumulative projects in the Project vicinity would be subject to the development review process, which could include conditions of approval or mitigation measures, as necessary, to minimize the exposure of sensitive receptors and other receiving land uses to excessive noise to the furthest extent possible. Therefore, operational noise impacts would not be cumulatively considerable, and impacts would be less than significant.

Decommissioning

Cumulative projects in the Project vicinity would likely be operational and contribute to the overall ambient noise conditions prior to Project decommissioning activities. Thus, temporary noise and vibration impacts from decommissioning activities associated with the Project would not likely combine with other cumulative projects in close proximity and at the same time. As noted above, it is reasonable to assume that noise and vibration generated from decommissioning activities would be similar in nature to construction activities, which would not exceed applicable thresholds and would result in less than significant impacts. Cumulative projects would be subject to County noise standards. Therefore, cumulative noise and vibration impacts during Project decommissioning activities would not be cumulatively considerable, and impacts would be less than significant.

REFERENCES

California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

California Department of Transportation, Transportation and Construction Vibration Guidance Manual, 2020.

California Department of Transportation, Transportation and Construction Vibration Guidance Manual, 2020.

Cyril M. Harris, Handbook of Noise Control, 1979.

Federal Highway Administration, Noise Fundamentals, 2017.

Federal Highway Administration, Roadway Construction Noise Model, 2006.

Federal Highway Administration, Roadway Construction Noise Model User's Guide Final Report, 2006.

Federal Interagency Committee on Noise, Federal Agency Review of Selected Airport Noise Analysis Issues, August 1992.

Federal Transit Administration, Transit Noise and Vibration Assessment Manual, 2018.

Los Angeles County Code of Ordinances, Section 12.08.440 Construction Noise. https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT12ENPR_CH12.08NOCO_PT4SPNORE_12.08.440CONO, accessed December 19, 2023.

Los Angeles County Department of Regional Planning, 2022, Los Angeles County Final General Plan 2035, https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf, accessed December 22, 2023.

James P. Cowan, Handbook of Environmental Acoustics, 1994.

Kern County Planning and Natural Resources Department, Acoustical Assessment for the AVEP Project, August 5, 2020.

National Electrical Manufacturers Association, NEMA TR 1-2013 Transformers, Step Voltage Regulators and Reactors, 2014.

San Bernardino County, Desert Breeze Solar Project Draft Environmental Impact Report, https://www.sbcounty.gov/uploads/LUS/Environmental/DESERT_BREEZE_SOLAR/_Desert%20Breeze%20Solar%20Project%20Draft%20EIR.pdf, accessed December 20, 2023.

Southern California Association of Governments, *Year 2000 Post-Census Regional Travel Survey, Table 12*, dated 2003.

Appendix A

Noise Data

Noise Measurement Field Data

Project:	230th Street Lancaster	**Job Number:**	
Site No.:	ST-1	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	9:18 AM
Location:	33.6073117, -114.5489780		
Noise Sources:	Birds, wind, cars, flying insects		
Comments:	**File ING.063**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
54.3	26.3	77.1	92.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	75
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	30%

Photo:



Kimley»Horn

Summary

File Name on Meter	lng.063.s
File Name on PC	LxTse_0005586-20231009 091655-lng.063.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-09 09:16:55
Stop	2023-10-09 09:31:55
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-08-31 10:04:48
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	C	Z
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**25.3**	26.0	31.7 dB
Noise Floor	16.1	16.8	22.5 dB

	First	Second	Third
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	54.3 dB	
LAE	83.8 dB	
EA	26.915 µPa²h	
LApeak (max)	2023-10-09 09:29:21	92.0 dB
LASmax	2023-10-09 09:29:21	77.1 dB
LASmin	2023-10-09 09:24:28	26.3 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	54.3	54.3	-99.9	54.3	54.3	-99.9	-99.9	dB

LCeq	59.0 dB
LAeq	54.3 dB
LCeq - LAeq	4.7 dB
LAleq	57.6 dB
LAeq	54.3 dB
LAleq - LAeq	3.3 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	54.3		59.0			
LS(max)	77.1	2023/10/09 9:29:21				
LS(min)	26.3	2023/10/09 9:24:28				
LPeak(max)	92.0	2023/10/09 9:29:21				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LA 5.00	50.7 dB
LA 10.00	44.4 dB
LA 33.30	35.4 dB
LA 50.00	33.2 dB
LA 66.60	31.7 dB
LA 90.00	29.4 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**	**12.5**	**16.0**	**20.0**	**25.0**	**31.5**	**40.0**	**50.0**	**63.0**	**80.0**	**100**	**125**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3150**	**4000**	**5000**	**6300**	**8000**	**10000**	**12500**	**16000**	**20000**
Direct	2019-10-29 12:18:45	-28.39	2.58	5.73	0.93	0.50	3.86	9.51	0.44	-3.11	1.43	6.00	2.05	-3.57	7.95	14.24	0.02	5.29	13.46	6.91	5.51	6.87	6.62	5.46	4.67	7.03	8.87	9.88	11.23	13.40	11.42	40.36	23.45	16.13	16.83	19.76	18.96	19.66
PRMLxT1L	2023-08-31 10:04:48	-28.76	61.03	61.98	57.52	60.54	55.29	55.45	52.03	56.13	51.43	52.86	50.08	46.64	44.05	42.29	40.24	37.71	31.00	27.38	25.45	24.01	16.34	28.63	114.03	49.13	18.74	66.81	19.33	58.08	19.61	27.07	21.34	22.67	24.08	25.72	28.04	30.76
PRMLxT1L	2023-08-14 09:21:22	-28.80	71.99	60.72	64.53	70.08	63.71	67.13	60.17	57.01	58.38	57.73	57.84	53.97	43.98	41.61	39.62	31.13	30.71	31.16	26.66	22.48	18.46	28.88	113.96	49.06	19.58	66.31	19.22	58.61	19.98	27.20	21.45	22.57	24.00	25.60	27.84	30.65
PRMLxT1L	2023-08-02 08:47:34	-28.78	52.32	54.78	54.24	61.95	67.23	63.90	60.11	66.50	67.18	65.63	67.81	58.63	62.44	62.97	59.45	56.82	56.57	49.11	41.87	44.95	39.11	31.91	114.01	49.20	19.78	66.22	20.13	58.78	19.78	27.29	21.19	22.83	23.65	25.47	27.96	30.70
PRMLxT1L	2023-08-02 08:45:53	-28.81	63.42	57.07	62.26	59.06	64.40	63.93	61.00	59.31	57.80	60.57	63.65	73.88	60.21	63.97	56.12	59.45	55.95	51.94	48.19	48.57	41.68	32.21	113.92	49.05	20.13	66.18	19.50	58.69	19.68	27.63	21.29	22.46	23.81	25.75	27.85	30.58
PRMLxT1L	2023-07-13 12:40:44	-28.75	66.48	69.97	55.31	57.78	62.25	60.41	52.04	59.64	56.55	53.66	55.01	52.17	53.95	53.05	57.87	52.77	50.89	49.51	49.22	47.27	41.20	32.67	114.13	49.64	22.14	66.59	19.40	59.22	19.80	28.04	21.49	22.96	24.29	26.12	28.35	30.63
PRMLxT1L	2023-07-13 09:51:44	-28.90	59.31	60.71	58.62	58.55	59.70	61.21	55.40	52.93	54.87	52.65	50.34	53.26	56.31	49.85	55.07	47.59	42.80	42.90	36.42	37.06	30.68	29.45	113.98	49.32	18.75	66.17	19.46	59.00	19.93	27.68	21.66	22.12	23.76	25.78	27.67	30.87
PRMLxT1L	2023-07-13 09:23:44	-28.90	60.41	60.71	59.50	63.74	60.22	56.73	57.65	53.07	53.21	54.90	55.01	51.50	56.50	51.18	46.63	44.37	45.45	40.66	36.44	31.18	28.12	28.93	113.89	49.22	20.28	65.88	19.60	58.94	19.28	27.57	21.28	22.65	23.74	25.74	27.87	30.71
PRMLxT1L	2023-06-27 08:29:08	-28.80	62.55	58.54	56.17	61.21	48.58	46.35	57.62	53.72	60.54	57.94	56.79	54.45	51.06	47.79	42.98	39.91	36.82	39.43	37.83	26.63	25.08	29.05	114.00	48.90	19.00	66.00	19.76	58.87	20.08	27.50	21.16	22.32	23.59	25.56	28.00	30.62
PRMLxT1L	2023-06-07 08:55:01	-28.82	69.12	55.56	51.67	63.01	51.53	53.14	49.70	57.03	69.87	63.77	60.99	54.17	49.20	52.67	41.66	37.47	38.68	33.57	33.80	31.32	27.01	29.00	113.97	49.08	20.28	66.12	19.52	58.84	19.73	27.36	21.18	22.57	24.05	25.61	28.16	30.80
PRMLxT1L	2023-06-06 10:03:27	-28.81	59.32	45.72	59.12	53.11	55.62	59.35	48.39	51.52	54.26	57.37	58.12	48.84	50.77	48.89	42.29	51.51	46.84	39.38	36.32	29.73	33.08	28.44	113.92	48.80	18.43	65.85	19.67	58.83	19.79	27.84	21.00	22.22	23.71	25.18	27.26	30.41
PRMLxT1L	2023-06-01 09:59:25	-28.74	44.79	51.19	54.83	55.61	55.13	46.54	58.98	55.37	53.40	60.52	61.55	53.00	57.22	54.29	50.43	48.59	53.16	48.67	38.00	35.30	34.57	31.56	113.94	48.87	27.91	66.17	19.57	58.46	19.97	27.67	21.16	22.24	23.95	25.19	27.56	30.43

Noise Measurement Field Data

Project:	230th Street Lancaster	**Job Number:**	
Site No.:	ST-2	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	9:41 AM
Location:	230th Street and West Avenue C8 Intersection		
Noise Sources:	Birds, flying insects		
Comments:	**File ING.064**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
30.4	23.3	46.1	78.4

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	79
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	26%

Photo:



Kimley»Horn

Summary

File Name on Meter	lng.064.s
File Name on PC	LxTse_0005586-20231009 094115-lng.064.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-09 09:41:15
Stop	2023-10-09 09:56:15
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-08-31 10:04:48
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	C	Z
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**25.3**	26.0	31.7 dB
Noise Floor	16.1	16.8	22.5 dB

	First	Second	Third
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	30.4	dB
LAE	59.9	dB
EA	0.110	µPa²h
LApeak (max)	2023-10-09 09:48:56	78.4 dB
LASmax	2023-10-09 09:42:18	46.1 dB
LASmin	2023-10-09 09:43:07	23.3 dB
SEA	-99.9	dB

	Exceedance Counts	Duration	
LAS > 85.0 dB	0	0.0	s
LAS > 115.0 dB	0	0.0	s
LApeak > 135.0 dB	0	0.0	s
LApeak > 137.0 dB	0	0.0	s
LApeak > 140.0 dB	0	0.0	s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	30.4	30.4	-99.9	30.4	30.4	-99.9	-99.9	dB

LCeq	50.3	dB
LAeq	30.4	dB
LCeq - LAeq	19.9	dB
LAleq	39.0	dB
LAeq	30.4	dB
LAleq - LAeq	8.6	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	30.4		50.3			
LS(max)	46.1	2023/10/09 9:42:18				
LS(min)	23.3	2023/10/09 9:43:07				
LPeak(max)	78.4	2023/10/09 9:48:56				

Overload Count	0	
Overload Duration	0.0	s
OBA Overload Count	0	
OBA Overload Duration	0.0	s

Statistics

LA 5.00	34.8	dB
LA 10.00	32.2	dB
LA 33.30	28.2	dB
LA 50.00	27.0	dB
LA 66.60	26.0	dB
LA 90.00	24.7	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**	**12.5**	**16.0**	**20.0**	**25.0**	**31.5**	**40.0**	**50.0**	**63.0**	**80.0**	**100**	**125**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3150**	**4000**	**5000**	**6300**	**8000**	**10000**	**12500**	**16000**	**20000**
Direct	2019-10-29 12:18:45	-28.39	2.58	5.73	0.93	0.50	3.86	9.51	0.44	-3.11	1.43	6.00	2.05	-3.57	7.95	14.24	0.02	5.29	13.46	6.91	5.51	6.87	6.62	5.46	4.67	7.03	8.87	9.88	11.23	13.40	11.42	40.36	23.45	16.13	16.83	19.76	18.96	19.66
PRMLxT1L	2023-08-31 10:04:48	-28.76	61.03	61.98	57.52	60.54	55.29	55.45	52.03	56.13	51.43	52.86	50.08	46.64	44.05	42.29	40.24	37.71	31.00	27.38	25.45	24.01	16.34	28.63	114.03	49.13	18.74	66.81	19.33	58.08	19.61	27.07	21.34	22.67	24.08	25.72	28.04	30.76
PRMLxT1L	2023-08-14 09:21:22	-28.80	71.99	60.72	64.53	70.08	63.71	67.13	60.17	57.01	58.38	57.73	57.84	53.97	43.98	41.61	39.62	31.13	30.71	31.16	26.66	22.48	18.46	28.88	113.96	49.06	19.58	66.31	19.22	58.61	19.98	27.20	21.45	22.57	24.00	25.60	27.84	30.65
PRMLxT1L	2023-08-02 08:47:34	-28.78	52.32	54.78	54.24	61.95	67.23	63.90	60.11	66.50	67.18	65.63	67.81	58.63	62.44	62.97	59.45	56.82	56.57	49.11	41.87	44.95	39.11	31.91	114.01	49.20	19.78	66.22	20.13	58.78	19.78	27.29	21.19	22.83	23.65	25.47	27.96	30.70
PRMLxT1L	2023-08-02 08:45:53	-28.81	63.42	57.07	62.26	59.06	64.40	63.93	61.00	59.31	57.80	60.57	63.65	73.88	60.21	63.97	56.12	59.45	55.95	51.94	48.19	48.57	41.68	32.21	113.92	49.05	20.13	66.18	19.50	58.69	19.68	27.63	21.29	22.46	23.81	25.75	27.85	30.58
PRMLxT1L	2023-07-13 12:40:44	-28.75	66.48	69.97	55.31	57.78	62.25	60.41	52.04	59.64	56.55	53.66	55.01	52.17	53.95	53.05	57.87	52.77	50.89	49.51	49.22	47.27	41.20	32.67	114.13	49.64	22.14	66.59	19.40	59.22	19.80	28.04	21.49	22.96	24.29	26.12	28.35	30.63
PRMLxT1L	2023-07-13 09:51:44	-28.90	59.31	60.71	58.62	58.55	59.70	61.21	55.40	52.93	54.87	52.65	50.34	53.26	56.31	49.85	55.07	47.59	42.80	42.90	36.42	37.06	30.68	29.45	113.98	49.32	18.75	66.17	19.46	59.00	19.93	27.68	21.66	22.12	23.76	25.78	27.67	30.87
PRMLxT1L	2023-07-13 09:23:44	-28.90	60.41	60.71	59.50	63.74	60.22	56.73	57.65	53.07	53.21	54.90	55.01	51.50	56.50	51.18	46.63	44.37	45.45	40.66	36.44	31.18	28.12	28.93	113.89	49.22	20.28	65.88	19.60	58.94	19.28	27.57	21.28	22.65	23.74	25.74	27.87	30.71
PRMLxT1L	2023-06-27 08:29:08	-28.80	62.55	58.54	56.17	61.21	48.58	46.35	57.62	53.72	60.54	57.94	56.79	54.45	51.06	47.79	42.98	39.91	36.82	39.43	37.83	26.63	25.08	29.05	114.00	48.90	19.00	66.00	19.76	58.87	20.08	27.50	21.16	22.32	23.59	25.56	28.00	30.62
PRMLxT1L	2023-06-07 08:55:01	-28.82	69.12	55.56	51.67	63.01	51.53	53.14	49.70	57.03	69.87	63.77	60.99	54.17	49.20	52.67	41.66	37.47	38.68	33.57	33.80	31.32	27.01	29.00	113.97	49.08	20.28	66.12	19.52	58.84	19.73	27.36	21.18	22.57	24.05	25.61	28.16	30.80
PRMLxT1L	2023-06-06 10:03:27	-28.81	59.32	45.72	59.12	53.11	55.62	59.35	48.39	51.52	54.26	57.37	58.12	48.84	50.77	48.89	42.29	51.51	46.84	39.38	36.32	29.73	33.08	28.44	113.92	48.80	18.43	65.85	19.67	58.83	19.79	27.84	21.00	22.22	23.71	25.18	27.26	30.41
PRMLxT1L	2023-06-01 09:59:25	-28.74	44.79	51.19	54.83	55.61	55.13	46.54	58.98	55.37	53.40	60.52	61.55	53.00	57.22	54.29	50.43	48.59	53.16	48.67	38.00	35.30	34.57	31.56	113.94	48.87	27.91	66.17	19.57	58.46	19.97	27.67	21.16	22.24	23.95	25.19	27.56	30.43

Noise Measurement Field Data

Project:	230th Street	**Job Number:**	
Site No.:	ST-3	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	10:03 AM
Location:			
Noise Sources:	Birds, flying insects		
Comments:	**File ING.065**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
29.7	23.2	41.8	75.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	81
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	29%

Photo:



Kimley»Horn

Summary

File Name on Meter	lng.065.s
File Name on PC	LxTse_0005586-20231009 100151-lng.065.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-09 10:01:51
Stop	2023-10-09 10:16:51
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-08-31 10:04:48
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	C	Z
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**25.3**	26.0	31.7 dB
Noise Floor	16.1	16.8	22.5 dB

	First	Second	Third
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	29.7 dB		
LAE	59.2 dB		
EA	0.093 µPa²h		
LApeak (max)	2023-10-09 10:05:29	75.7 dB	
LASmax	2023-10-09 10:05:29	41.8 dB	
LASmin	2023-10-09 10:02:47	23.2 dB	
SEA	--- dB		

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	29.7	29.7	29.9	29.7	29.7	29.8	29.9 dB

LCeq	46.6 dB	
LAeq	29.7 dB	
LCeq - LAeq	16.9 dB	
LAleq	34.0 dB	
LAeq	29.7 dB	
LAleq - LAeq	4.3 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	29.7		46.6			
LS(max)	41.8	2023/10/09 10:05:29				
LS(min)	23.2	2023/10/09 10:02:47				
LPeak(max)	75.7	2023/10/09 10:05:29				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LA 5.00	33.7 dB
LA 10.00	32.5 dB
LA 33.30	29.4 dB
LA 50.00	28.3 dB
LA 66.60	27.2 dB
LA 90.00	25.6 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**	**12.5**	**16.0**	**20.0**	**25.0**	**31.5**	**40.0**	**50.0**	**63.0**	**80.0**	**100**	**125**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3150**	**4000**	**5000**	**6300**	**8000**	**10000**	**12500**	**16000**	**20000**
Direct	2019-10-29 12:18:45	-28.39	2.58	5.73	0.93	0.50	3.86	9.51	0.44	-3.11	1.43	6.00	2.05	-3.57	7.95	14.24	0.02	5.29	13.46	6.91	5.51	6.87	6.62	5.46	4.67	7.03	8.87	9.88	11.23	13.40	11.42	40.36	23.45	16.13	16.83	19.76	18.96	19.66
PRMLxT1L	2023-08-31 10:04:48	-28.76	61.03	61.98	57.52	60.54	55.29	55.45	52.03	56.13	51.43	52.86	50.08	46.64	44.05	42.29	40.24	37.71	31.00	27.38	25.45	24.01	16.34	28.63	114.03	49.13	18.74	66.81	19.33	58.08	19.61	27.07	21.34	22.67	24.08	25.72	28.04	30.76
PRMLxT1L	2023-08-14 09:21:22	-28.80	71.99	60.72	64.53	70.08	63.71	67.13	60.17	57.01	58.38	57.73	57.84	53.97	43.98	41.61	39.62	31.13	30.71	31.16	26.66	22.48	18.46	28.88	113.96	49.06	19.58	66.31	19.22	58.61	19.98	27.20	21.45	22.57	24.00	25.60	27.84	30.65
PRMLxT1L	2023-08-02 08:47:34	-28.78	52.32	54.78	54.24	61.95	67.23	63.90	60.11	66.50	67.18	65.63	67.81	58.63	62.44	62.97	59.45	56.82	56.57	49.11	41.87	44.95	39.11	31.91	114.01	49.20	19.78	66.22	20.13	58.78	19.78	27.29	21.19	22.83	23.65	25.47	27.96	30.70
PRMLxT1L	2023-08-02 08:45:53	-28.81	63.42	57.07	62.26	59.06	64.40	63.93	61.00	59.31	57.80	60.57	63.65	73.88	60.21	63.97	56.12	59.45	55.95	51.94	48.19	48.57	41.68	32.21	113.92	49.05	20.13	66.18	19.50	58.69	19.68	27.63	21.29	22.46	23.81	25.75	27.85	30.58
PRMLxT1L	2023-07-13 12:40:44	-28.75	66.48	69.97	55.31	57.78	62.25	60.41	52.04	59.64	56.55	53.66	55.01	52.17	53.95	53.05	57.87	52.77	50.89	49.51	49.22	47.27	41.20	32.67	114.13	49.64	22.14	66.59	19.40	59.22	19.80	28.04	21.49	22.96	24.29	26.12	28.35	30.63
PRMLxT1L	2023-07-13 09:51:44	-28.90	59.31	60.71	58.62	58.55	59.70	61.21	55.40	52.93	54.87	52.65	50.34	53.26	56.31	49.85	55.07	47.59	42.80	42.90	36.42	37.06	30.68	29.45	113.98	49.32	18.75	66.17	19.46	59.00	19.93	27.68	21.66	22.12	23.76	25.78	27.67	30.87
PRMLxT1L	2023-07-13 09:23:44	-28.90	60.41	60.71	59.50	63.74	60.22	56.73	57.65	53.07	53.21	54.90	55.01	51.50	56.50	51.18	46.63	44.37	45.45	40.66	36.44	31.18	28.12	28.93	113.89	49.22	20.28	65.88	19.60	58.94	19.28	27.57	21.28	22.65	23.74	25.74	27.87	30.71
PRMLxT1L	2023-06-27 08:29:08	-28.80	62.55	58.54	56.17	61.21	48.58	46.35	57.62	53.72	60.54	57.94	56.79	54.45	51.06	47.79	42.98	39.91	36.82	39.43	37.83	26.63	25.08	29.05	114.00	48.90	19.00	66.00	19.76	58.87	20.08	27.50	21.16	22.32	23.59	25.56	28.00	30.62
PRMLxT1L	2023-06-07 08:55:01	-28.82	69.12	55.56	51.67	63.01	51.53	53.14	49.70	57.03	69.87	63.77	60.99	54.17	49.20	52.67	41.66	37.47	38.68	33.57	33.80	31.32	27.01	29.00	113.97	49.08	20.28	66.12	19.52	58.84	19.73	27.36	21.18	22.57	24.05	25.61	28.16	30.80
PRMLxT1L	2023-06-06 10:03:27	-28.81	59.32	45.72	59.12	53.11	55.62	59.35	48.39	51.52	54.26	57.37	58.12	48.84	50.77	48.89	42.29	51.51	46.84	39.38	36.32	29.73	33.08	28.44	113.92	48.80	18.43	65.85	19.67	58.83	19.79	27.84	21.00	22.22	23.71	25.18	27.26	30.41
PRMLxT1L	2023-06-01 09:59:25	-28.74	44.79	51.19	54.83	55.61	55.13	46.54	58.98	55.37	53.40	60.52	61.55	53.00	57.22	54.29	50.43	48.59	53.16	48.67	38.00	35.30	34.57	31.56	113.94	48.87	27.91	66.17	19.57	58.46	19.97	27.67	21.16	22.24	23.95	25.19	27.56	30.43

Noise Measurement Field Data

Project:	230th Street Lancaster	**Job Number:**	
Site No.:	ST-4	**Date:**	10/9/2023
Analyst:	Moody A.	**Time:**	10:33 AM
Location:			
Noise Sources:	Dogs, traffic, wind		
Comments:	**File ING.066**		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
48.3	30.4	57.1	83.2

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	83
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	29.84 inHg
Humidity:	23%

Photo:



Kimley»Horn

Project: RPCA 230th

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Single-Family Residential	718	0	S
2				
3			0	
4			0	
5			0	
6			0	
7			0	

					RECEPTOR	**1**
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
Demolition						
	Dozer	2	40%	82	61.6	57.6
	Excavator	3	40%	81	62.3	58.3
	Concrete Saw	1	20%	90	66.5	59.5
Combined LEQ						**63.3**
Site Preparation						
	Tractor	1	40%	84	60.9	56.9
	Dozer	1	40%	82	58.6	54.6
			#N/A	#N/A	0.0	0.0
Combined LEQ						**58.9**
Grading						
	Excavator	1	40%	81	57.6	53.6
	Dozer	1	40%	82	58.6	54.6
	Pickup Truck	1	40%	75	51.9	47.9
	Front End Loader	1	40%	79	56.0	52.0
	Roller	1	20%	80	56.9	49.9
Combined LEQ						**59.2**
Construction/Installation						
	Crane	1	16%	81	57.5	49.5
	Impact Pile Driver	1	20%	101	78.2	71.2
	All Other Equipment > 5 HP	1	50%	85	61.9	58.8
	Tractor	1	40%	84	60.9	56.9
	Excavator	1	40%	81	57.6	53.6
	Pickup Truck	1	40%	75	51.9	47.9
	Concrete Mixer Truck	1	40%	79	55.7	51.7
	Dozer	1	40%	82	58.6	54.6
	Slurry Trenching Machine	1	50%	80	57.3	54.2
	Front End Loader	1	40%	79	56.0	52.0
Combined LEQ						**71.8**
PV Panel Vendor Trips						
	Tractor	1	40%	84	60.9	56.9
Combined LEQ						**56.9**
Paving						
	Roller	1	20%	80	56.9	49.9
Combined LEQ						**49.9**

Source for Ref. Noise Levels: RCNM, 2005

Project: RPCA 230th Street Solar
BESS

Noise Level Per unit = L1 - 10 LOG (n)

Reference Noise Level (L1):[1]	68	dBA_1
Number of Sources (n):	150	(total number of HVAC units)
Reference Level Per Unit:	46.2	dBA_2

1. Reference Noise Level Source: Kern County Planning and Natural Resources Department, Acoustical Assessment for the AVEP Project, August 5, 2020

The reference noise level is based on simultaneous operation of approximately 150 HVAC units for a facility greater than 600 acres in size with a storage capacity of 1,000 MW.

2. Calculated with the inverse square law:

where: dBA_1 = Reference Noise Level, dBA_2 = Estimated Noise Level

3. Conservatively assumes all units are the same distance from the receptor.

Noise Level Multiplication

$$L_\Sigma = 10 \cdot \log_{10}(n) + L_1$$

Reference Noise Level:[1]	46.2	dBA per unit
Reference Distance:	50	feet
Number of Sources:	4	(total number of HVAC units)
Total Noise Level (at 50 feet):	52.3	dBA
Distance to Receptor:	130	feet
Noise Level at Receptor:[2, 3]	44.0	dBA

1. See above for Reference Level calculation details.

2. Calculated with the inverse square law:

where: dBA_1 = Reference Noise Level, dBA_2 = Estimated Noise Level, d_1 = Reference Distance, and d_2 = Receptor Location Distance

3. Conservatively assumes all units are the same distance from the receptor.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: 230th St Solar Project
Project Number: Operational Trips
Scenario: Horizon Year
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

							Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1			1	20	4	35	0	25.0%	25.0%	36.6	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

Equipment		PPV at 25 feet (in/sec)	Calculated distance (feet) 100	Approximate L_V (VdB) at 25 feet	Calculated distance (feet) 100
Pile Driver (impact)	upper range	1.518	0.1898	112	94
	typical	0.644	0.0805	104	86
Pile Driver (sonic)	upper range	0.734	0.0918	105	87
	typical	0.17	0.0213	93	75
Clam shovel drop (slurry wall)		0.202	0.0253	94	76
Hydromill (slurry wall)	in soil	0.008	0.0010	66	48
	in rock	0.017	0.0021	75	57
Vibratory Roller		0.21	0.0263	94	76
Hoe Ram		0.089	0.0111	87	69
Large bulldozer		0.089	0.0111	87	69
Caisson drilling		0.089	0.0111	87	69
Loaded trucks		0.076	0.0095	86	68
Jackhammer		0.035	0.0044	79	61
Small bulldozer		0.003	0.0004	58	40
Rock Breaker		0.059	0.0074		
		PPV at 50 ft			
Blasting		0.4	0.1414		

$L_v(D) = L_v(25 \text{ feet}) - (30 \times \log_{10}(D/25 \text{ feet}))$

Source: FTA, Noise and Vibration Manual, 2006. Page 12-11.

Notes:

1. Calculated using the following formula:

PPV equip = PPVref x (25/D)1.5

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA Transit Noise and Vibration Impact Assessment Guidelines

D = the distance from the equipment to the receiver

Custom

Equipment	PPV at 25 feet (in/sec)	Calculated distance (feet) 110	Calculated distance (feet)
Large bulldozer	0.089	0.010	
Loaded trucks	0.076	0.008	
Small bulldozer	0.003	0.000	
Vibratory compactor/roller	0.21	0.023	

Appendix K

Tribal Cultural Resources Documentation

Kimley»Horn

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

January 22, 2024

Sarah Brunzell
Fernandeno Tataviam Band of Mission Indians
1019 Second Street
San Fernando, CA 91340

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, a map showing the project location, and our contact information along with the name of our point of contact, pursuant to RPC §21080.3.1(d).

Proposed Project: 230th Street Solar Project in Lake Los Angeles
Project No. PRJ2023-002405
Conditional Use Permit No. RPPL2023005137
Environmental Assessment No. RPPL2023005138

Project Description: To construct, operate and maintain a utility-scale ground-mounted solar energy facilty consisting of five (5) megawatt ("MW") alternating current single-axis tracking photovoltaic modules, battery energy storage system, a water tank, inverter transformer and switchpad, access roads, and seven-foot high fencing with a 10-foot landscape buffer. The facility will interconnect to an existing electrical distribution system located adjacent to the site (see attached project description for details).

Project Location: 49560 230th Street West, Lancaster, CA 93536

APN: 3278025001

Lead Agency Contact Information: Los Angeles County

North County Development Services Section
Department of Regional Planning
320 W. Temple Street, Room 1360
Los Angeles, CA 90012
Tel: (213) 974-6411
Email: schoi@planning.lacounty.gov

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,

Department of Regional Planning
Amy J. Bodek, AICP
Director



Soyeon Choi
Senior Regional Planner
North County Development Services Section

Encl: Map of Project Location, Project Description, Site Plan

SD:SC

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

January 24, 2024

Christina Conley, Cultural Resources Administrator
The Gabrieleno Tongva Indians of California
P.O. Box 941078
Simi Valley, CA 93094

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, a map showing the project location, and our contact information along with the name of our point of contact, pursuant to RPC §21080.3.1(d).

Proposed Project: 230th Street Solar Project in Lake Los Angeles
Project No. PRJ2023-002405
Conditional Use Permit No. RPPL2023005137
Environmental Assessment No. RPPL2023005138

Project Description: To construct, operate and maintain a utility-scale ground-mounted solar energy facilty consisting of five (5) megawatt ("MW") alternating current single-axis tracking photovoltaic modules, battery energy storage system, a water tank, inverter transformer and switchpad, access roads, and seven-foot high fencing with a 10-foot landscape buffer. The facility will interconnect to an existing electrical distribution system located adjacent to the site (see attached project description for details).

Project Location: 49560 230th Street West, Lancaster, CA 93536

APN: 3278025001

Lead Agency Contact Information: Los Angeles County

North County Development Services Section
Department of Regional Planning
320 W. Temple Street, Room 1360
Los Angeles, CA 90012
Tel: (213) 974-6411
Email: schoi@planning.lacounty.gov

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,

Department of Regional Planning
Amy J. Bodek, AICP
Director



Soyeon Choi
Senior Regional Planner
North County Development Services Section

Encl: Map of Project Location, Project Description, Site Plan

SD:SC

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

January 22, 2024

Lee Clauss
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, a map showing the project location, and our contact information along with the name of our point of contact, pursuant to RPC §21080.3.1(d).

Proposed Project: 230th Street Solar Project in Lake Los Angeles
Project No. PRJ2023-002405
Conditional Use Permit No. RPPL2023005137
Environmental Assessment No. RPPL2023005138

Project Description: To construct, operate and maintain a utility-scale ground-mounted solar energy facilty consisting of five (5) megawatt ("MW") alternating current single-axis tracking photovoltaic modules, battery energy storage system, a water tank, inverter transformer and switchpad, access roads, and seven-foot high fencing with a 10-foot landscape buffer. The facility will interconnect to an existing electrical distribution system located adjacent to the site (see attached project description for details).

Project Location: 49560 230th Street West, Lancaster, CA 93536

APN: 3278025001

Lead Agency Contact Information: Los Angeles County

North County Development Services Section
Department of Regional Planning
320 W. Temple Street, Room 1360
Los Angeles, CA 90012
Tel: (213) 974-6411
Email: schoi@planning.lacounty.gov

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,

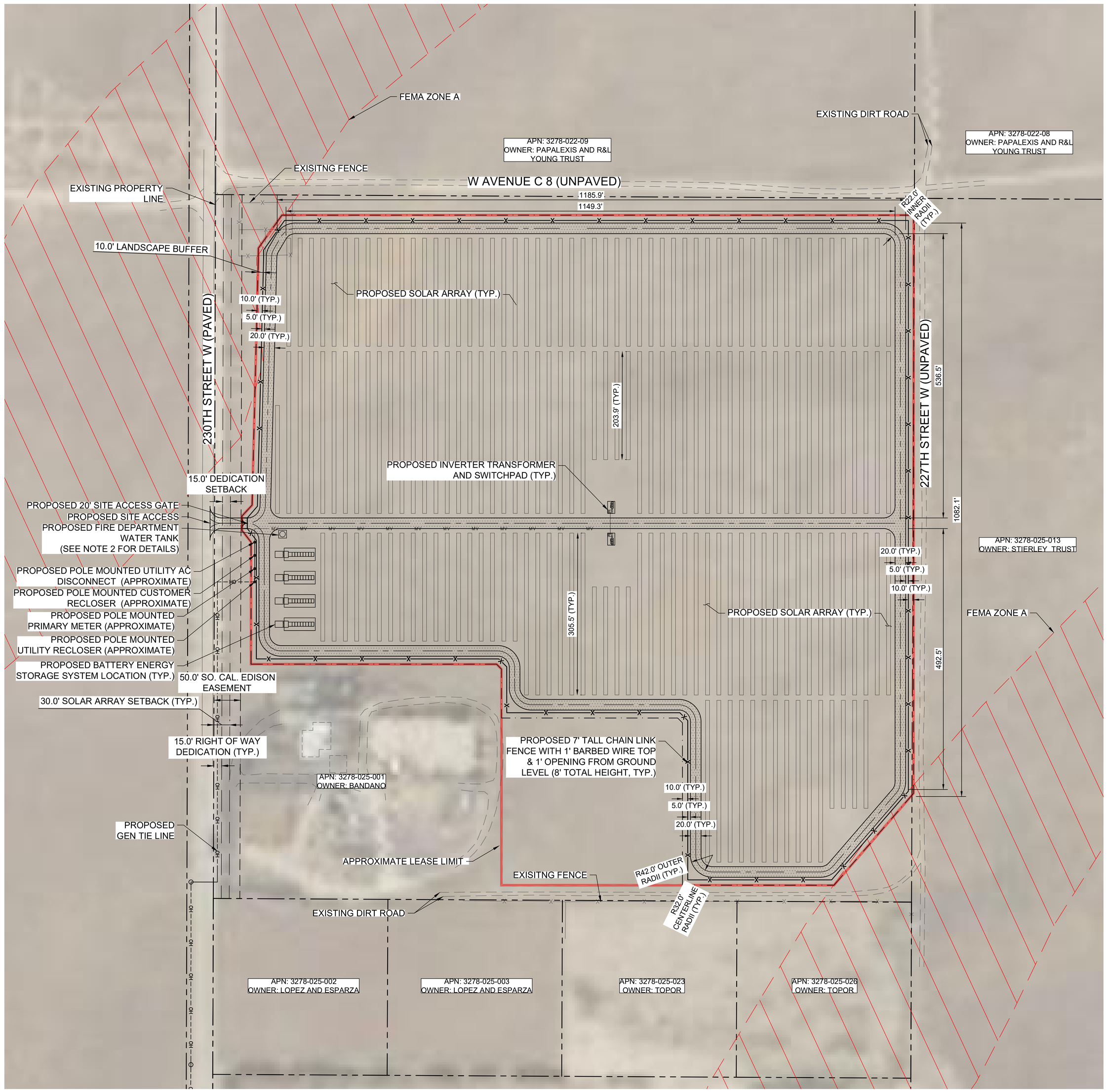
Department of Regional Planning
Amy J. Bodek, AICP
Director



Soyeon Choi
Senior Regional Planner
North County Development Services Section

Encl: Map of Project Location, Project Description, Site Plan

SD:SC



LEGEND

- 81 MODULE SAT ROW
- 54 MODULE SAT ROW
- INVERTER TRANSFORMER AND SWITCHPAD
- BATTERY ENERGY STORAGE SYSTEM
- EXISTING PROPERTY LINE
- APPROXIMATE LEASE LIMIT
- PROPOSED 7' TALL CHAIN LINK FENCE WITH 1' BARBED WIRE TOP & 1' OPENING FROM GROUND LEVEL (8' TOTAL HEIGHT)
- EXISTING OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- PROPOSED 20' ALL WEATHER ACCESS ROAD
- PROPERTY LINE SETBACK
- PROPOSED 20' SITE ACCESS GATE
- PROPOSED MV LINE
- LANDSCAPE BUFFER
- EASEMENT

SITE INFORMATION

PROJECT ADDRESS:	49560 230TH STREET W, LANCASTER, CA 93536
APN:	3278-025-001
PARCEL SIZE:	39 AC
PROPOSED SITE DISTURBANCE:	31 AC
FLOOD NOTE:	PROPERTY FALLS PARTIALLY WITHIN ZONE "A" SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AND PARTIALLY WITHIN ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. FEMA FLOOD INSURANCE RATE MAP 065043 PANEL 0100 F, EFFECTIVE DATE 09/26/2008

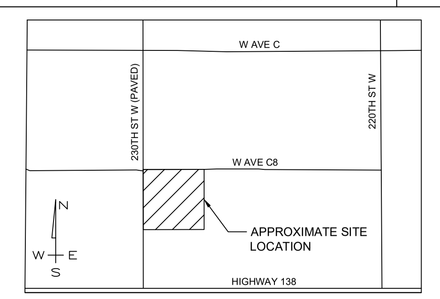
SURVEY NOTE

DATE:	OCTOBER 2023
TITLE REPORT INFORMATION:	THE INFORMATION SHOWN HEREON IS PER A PRELIMINARY TITLE REPORT PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED MAY 31, 2022. ISSUING OFFICE: 7676 HAZARD CENTER DRIVE, STE 1400, SAN DIEGO, CALIFORNIA 92108. ISSUING AGENT: FRANK GREEN. TITLE ORDER NUMBER: 2200030800. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS: A FEE. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: AMILCAR R. BADANO AND DEBBIE BADANO, HUSBAND AND WIFE AS JOINT TENANTS.
BASIS OF BEARINGS:	CALIFORNIA COORDINATE SYSTEM, ZONE 5, GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE
LEGAL DESCRIPTION:	THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES IS DESCRIBED AS FOLLOWS: THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SECTION 13, TOWNSHIP 8 NORTH, RANGE 16 WEST, SAN BERNARDINO BASE MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND.

GENERAL NOTES

1. THIS SITE PLAN IS PRELIMINARY IN NATURE AND THEREFORE DOES NOT GUARANTEE THAT REQUIREMENTS FOR STORM DRAINAGE, GRADING, UTILITY EASEMENTS, AND OTHER SIMILAR CRITERIA ARE PROPERLY ADDRESSED AT THIS TIME. THE ABOVE REQUIREMENTS CAN AFFECT THE LAYOUT OF THIS SITE.
2. A 10,000 GALLON WATER TANK TO BE CLEARLY IDENTIFIED FOR "FIRE DEPARTMENT USE ONLY" AND SHALL BE IN COMPLIANCE WITH FIRE DEPARTMENT STANDARDS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. TRACKER HEIGHT MAXIMUM IS 10 FEET.
5. PHOTOVOLTAIC PANELS, INVERTERS AND INTERCONNECTION EQUIPMENT, LOCATIONS SHOWN FOR REFERENCE ONLY. DESIGN AND FINAL LAYOUT PER DRAWINGS BY THE CONTRACTED ELECTRICAL DESIGN CONSULTANT.
6. TO PROTECT EQUIPMENT FROM POTENTIAL PONDING OR OVERLOAD STORMWATER FLOW, ALL EQUIPMENT SKIDS/PADS (FOR INVERTERS, INTERCONNECTION EQUIPMENT, ETC.) SHALL BE ELEVATED A MINIMUM O 12" ABOVE 100 YEAR FLOOD ELEVATION.
7. THE NEW ONSITE ROAD SURFACE CLOSELY MATCHES THE EXISTING SURFACE GRADES. THE INTENT IS TO MAINTAIN EXISTING SURFACE FLOWS ACROSS THE SITE AND ELIMINATE AREAS OF PONDING.
8. FOR ONSITE AND OFFSITE DRAINAGE ANALYSIS, REFER TO "ONSITE AND OFFSITE DRAINAGE REPORT" FOR 230TH STREET SOLAR, PREPARED BY KIMLEY-HORN, DATED MONTH, YEAR.

ZONING INFORMATION			
ZONE A2-2: HEAVY AGRICULTURAL			
REQUIREMENTS	STANDARD (FT)	PROPOSED (FT)	MEETS REQ. (Y/N)
SOLAR ARRAY SETBACK	30	40+	Y
LANDSCAPE BUFFER	10	10	Y
MAXIMUM TRACKER HEIGHT	25	10	Y
MINIMUM ROAD WIDTH	20	20	Y
ACCESS GATE SETBACK	50	60+	Y
TRACKER QTY.			
DC SYSTEM SIZE		6,415.20 kW	
# OF 81 MODULE TRACKER ROWS		90	
# OF 54 MODULE TRACKER ROWS		85	



VICINITY MAP
NTS

NORTH

GRAPHIC SCALE IN FEET
0 40 80 160

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT	099997002
DATE	11/2/2023
SCALE	AS SHOWN
DESIGNED BY	BC
DRAWN BY	BC
CHECKED BY	CY

CONCEPTUAL SITE PLAN

230TH STREET SOLAR

PREPARED FOR
RPCA SOLAR 12, LLC

LOS ANGELES COUNTY, CALIFORNIA

SHEET NUMBER
C1.0

Plotted By: Crump, Brenna Sheet Set: Kha Layout: CONCEPTUAL SITE PLAN November 02, 2023 07:47:05am K:\LDT_ENERGY\RPCA_Ground-mount\099997002_RPCA_230th St_Exhibit E\06_CAD_PlanSheets\CX.X - SITE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Renewable Properties, LLC
879 Sanchez Street
San Francisco, CA 94114
www.renewprop.com

June 28, 2023

Soyeon Choi
Los Angeles Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

RE: 230th Street Solar – Project Narrative – Application for Conditional Use Permit

Dear Soyeon:

On behalf of RPCA Solar 12, LLC, we submit this letter as a description of the 230th Street Solar + Battery Energy Storage (BESS) Project ("Project"). Renewable Properties held a Pre-Application Meeting with the County of Los Angeles on March 14, 2023 and the Project was assigned the following number: PRJ2022-004571. The combined solar plus BESS facility will be located on approximately 31-acres of a 40-acre parcel (APN: 3278-025-001). The parcel is located east of the community of Neenach in unincorporated Los Angeles County at 49560 230th Street W northwest of Lancaster. The proposed parcel is comprised of undeveloped open space except for a rural residence / single-family home, located on the southwest corner of the project parcel. RPCA Solar 12, LLC, via its affiliate Wildcat Renewables, LLC, has entered into a long-term lease agreement with the property owners, Amilcar Ruben Badano and Debbie Badano to facilitate the development and long-term operation of the Project.

The solar Project will generate up to a total of 4.99 megawatts (MW) alternating current (AC) (7.5 MW direct current (DC)) of clean, reliable solar energy when complete. The BESS will charge and discharge a total of 4.99 megawatts (MW) alternating current (AC) of energy for up to a four-hour duration. The Project will interconnect to Southern California Edison's (SCE) pre-existing electrical distribution system located adjacent to the site. The power generated from this facility will be sold to SCE through a long-term Power Purchase Agreement (PPA). Additionally, the Project will be equipped with energy storage technology that will allow onsite renewable energy generation to be stored and dispatched onto the grid when needed.

The subject parcel is located in the "A-2-2 District" within the Antelope Valley West General Plan area. The Project meets the County definition of a "utility scale solar facility," and has been designed to comply with Title 22, Chapter 140.510 of the Los Angeles County Code with one exception. The Project will apply for a variance to Subsection (E)(3)(c)(vii) of the Renewable Energy ordinance which outlies landscape buffer requirements.

The Project will utilize approximately 12,555 solar modules and 40 string inverters to convert the sun's energy into usable, AC power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the array will be no more than 15-feet tall above ground surface.

Locally-sited energy storage systems, like the Project, improve the resiliency of the regional energy grid and increase the utilization of renewable energy resources by storing energy generated by the solar project during the day and discharging during peak demand hours.

We are excited to work with the County to advance the Project through the local review and approval process. Please let us know if you have any questions about our application. We look forward to scheduling our review meeting soon.

Sincerely,

RENEWABLE PROPERTIES



Stephanie Loucas
Chief Development Officer
415-710-3834

Appendix L

Responses to Comments

Kimley»Horn

1.0 INTRODUCTION TO RESPONSE TO COMMENTS

This Final Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code [PRC] Section 21000 et seq.) and CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et seq.). The Final IS/MND incorporates, by reference, the Draft IS/MND (State Clearinghouse No. 2025050245) prepared by Los Angeles County (County) for the 230th Street Solar Project (Project).

This Final IS/MND for the Project presents Sections 1 through Section 3:

- Section 1: Introduction to Responses to Comments
- Section 2: A list of persons, organizations, and/or public agencies commenting on the Draft IS/MND
- Section 3: Written responses to each comment identified in Section 2
- Section 4: Changes that were made to clarify, correct, or supplement information provided in the Public Review IS/MND

This Final IS/MND also includes changes that were made to clarify, correct, or supplement information provided in the Public Review IS/MND. Thes changes and additions were made to respond to comments received during the public review period. The changes provided do not add significant new information or require substantial revisions that would require recirculation of the IS/MND. Changes to the IS/MND are indicated below under the respective EIR section heading, page number, and paragraph. Paragraph reference is to the first full paragraph on the page. Deletions are shown with ~~strikethrough~~ and additions are shown with <u>double underline</u>.

1.1 CEQA Process

The Notice of Completion of the Draft IS/MND was posted on May 5, 2025, with the County Clerk in Los Angeles. The Draft IS/MND was circulated for a 30-day public review until June 9, 2025. The Draft IS/MND was circulated to federal, State, and local agencies and interested parties requesting a copy of the Draft IS/MND. Copies of the Draft IS/MND were made available at the following locations:

- County Website: https://lacdrp.legistar.com/LegislationDetail.aspx?ID=7372020&GUID=7F0ADB40-5FE8-4E83-987B-D8978B16D323&Options=ID|Text|&Search=25-109
- County of Los Angeles Building and Safety Antelope Valley Field Office: 335 E Avenue K-6 #A, Lancaster, CA 93535

1.2 Notice of Determination

Pursuant to CEQA Guidelines Section 15094, the City will file a Notice of Determination (NOD) with the Office of Planning and Research and Los Angeles County Clerk within five working days of Project approval.

2.0 COMMENT LETTERS

CEQA Guidelines Section 15074(b) states that: "Prior to approving a project, the decision making body of the lead agency shall consider the proposed negative declaration or mitigated negative declaration together with any comments received during the public review process." Although the CEQA Guidelines do not require a lead agency to prepare written responses to comments received, the County has elected to prepare the following written responses with the intent of providing a comprehensive and meaningful evaluation of the proposed Project. This section of the IS/MND therefore provides responses to each of the comments on the Public Review IS/MND received during the public comment period. Table 2-1, Comments Received on the 230th Street Solar Project Public Review IS/MND, provides a list of the comment letters received and the corresponding issues that were raised.

The individual letters received during the public comment period, and as listed in Table 2-1, are each assigned a number in chronological order, as indicated in Table 2-1. Each comment that requires a response is also assigned a number. For example, the first comment letter received was from the Peterson Ranch Mitigation Bank; therefore, this is Letter 1. The first comment in the letter is therefore labeled Comment 1-1 and the responses to each comment are correspondingly numbered, (i.e., Response 1-1). As required by the CEQA Guidelines Section 15088(c), the focus of the responses to comments is on "the disposition of significant environmental issues raised." Comments should focus on the proposed finding that the project (including any proposed mitigation measures) will not have a significant environmental effect. (CEQA Guidelines § 15204(a).) Therefore, detailed responses are not provided for comments that do not relate to environmental issues.

Table 2-1: Comments Received on the 230th Street Solar Project Public Review IS/MND

Letter No.	Name	Date Received
1	Nathan Bello HabitatSource	May 9, 2025
2	Antelope Valley Air Quality Management District Barbara Lods, BJL/SS 2551 West Avenue H Lancaster, CA 93536	May 12, 2025
3	Edward L. LaRue, Jr., M.S. Ecosystems Advisory Committee, Chairperson Mohave Ground Squirrel Conservation Council P.O. Box 1660 Wrightwood, CA 92397	12/12/2023
4	Sophia Markowska Senior California Representative Defenders of Wildlife P.O. Box 401 Folsom, CA 95763	12/13/2023

Letter No.	Name	Date Received
5	Alisa Ellsworth Environmental Program Manager State of California – Natural Resources Agency Department of Fish and Wildlife Inland Deserts Region 3602 Inland Empire Boulevard, Suite C-220 Ontario, CA 91765	12/13/2023

3.0 RESPONSES TO COMMENTS

Responses to individual comments are included herein.

From: Nathan Bello <bello@habitatsource.com>
Sent: Friday, May 9, 2025 5:39 PM
To: Soyeon Choi <schoi@planning.lacounty.gov>
Subject: 230th Street Solar

CAUTION: External Email. Proceed Responsibly.

Dear Soyeon Choi,

Thank you for the opportunity to review the Initial Study/Mitigated Negative Declaration (IS/MND) for the 230th Street Solar Project. My name is Nathan Bello, and I manage and support the Petersen Ranch Mitigation Bank, which was established to provide compensatory mitigation for projects in Los Angeles County impacting a range of biological resources, including natural communities and native vegetation.

The Petersen Ranch Mitigation Bank offers a variety of credits approved by the California Department of Fish and Wildlife (CDFW) to meet CEQA mitigation requirements. While these credits are categorized by vegetation community, they also represent habitat that supports a suite of native plant and wildlife species. For example, the grassland and chaparral credit areas at Petersen Ranch are known to support habitat for species analyzed in the IS/MND, including Swainson's hawk, Crotch's bumble bee, burrowing owl, and American badger.

I respectfully suggest that the mitigation measure for Crotch's bumble bee (MM Bio-9) be revised to allow for the use of credits from approved mitigation banks. Incorporating this flexibility is consistent with CEQA's requirements for feasible, enforceable, and effective mitigation (CEQA Guidelines §§ 15126.4(a)(1)(B), 15041(a)) and with CEQA's mandate for consistency with other environmental laws and policies (§ 15021). The use of mitigation banks also aligns with state and federal policies that establish a preference for mitigation that is permanent, professionally managed, and ecologically effective. Approved mitigation banks ensure that conservation outcomes are both certain to occur and enforceable, meeting CEQA's standards for mitigation certainty and long-term success.

An example of a mitigation measure structure that provides this flexibility is included below:

"Any floral resources associated with Crotch's bumble bee (i.e., specific plant species known to be used for foraging) that will be removed or damaged by the Project shall be replaced ***on-site, off-site, or mitigated through the purchase of credits from the***

Petersen Ranch Mitigation Bank or another CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, *at a 1:1 ratio or as otherwise determined through any applicable Incidental Take Permit (ITP) process. Floral resources* ***mitigated through on-site or off-site replacement*** *shall be replaced as close to their original location as feasible after Project construction. These resources shall be maintained for the life of the Project and replanted or managed as needed to ensure habitat preservation."*

If it would be helpful, I would be happy to meet with you and your team to provide additional information about the Petersen Ranch Mitigation Bank and its relevance to this project.

Thank you for your consideration.

Sincerely,

Nathan Bello

HabitatSource

bello@habitatsource.com

916.508.4993

Letter 1

HabitatSource
Nathan Bello
bello@habitatsource.com
916.508.4993

Comment 1-1

Thank you for the opportunity to review the Initial Study/Mitigated Negative Declaration (IS/MND) for the 230th Street Solar Project. My name is Nathan Bello, and I manage and support the Petersen Ranch Mitigation Bank, which was established to provide compensatory mitigation for projects in Los Angeles County impacting a range of biological resources, including natural communities and native vegetation.

The Petersen Ranch Mitigation Bank offers a variety of credits approved by the California Department of Fish and Wildlife (CDFW) to meet CEQA mitigation requirements. While these credits are categorized by vegetation community, they also represent habitat that supports a suite of native plant and wildlife species. For example, the grassland and chaparral credit areas at Petersen Ranch are known to support habitat for species analyzed in the IS/MND, including Swainson's hawk, Crotch's bumble bee, burrowing owl, and American badger.

Response 1-1

This comment provides an introduction to the comment letter and provides an overview of the commenter's organization. As this comment does not raise any specific issue to the content and adequacy of the IS/MND, no further response is warranted.

Comment 1-2

I respectfully suggest that the mitigation measure for Crotch's bumble bee (MM Bio-9) be revised to allow for the use of credits from approved mitigation banks. Incorporating this flexibility is consistent with CEQA's requirements for feasible, enforceable, and effective mitigation (CEQA Guidelines §§ 15126.4(a)(1)(B), 15041(a)) and with CEQA's mandate for consistency with other environmental laws and policies (§ 15021). The use of mitigation banks also aligns with state and federal policies that establish a preference for mitigation that is permanent, professionally managed, and ecologically effective. Approved mitigation banks ensure that conservation outcomes are both certain to occur and enforceable, meeting CEQA's standards for mitigation certainty and long-term success.

An example of a mitigation measure structure that provides this flexibility is included below:

"Any floral resources associated with Crotch's bumble bee (i.e., specific plant species known to be used for foraging) that will be removed or damaged by the Project shall be replaced ***on-site, off-site, or mitigated through the purchase of credits from the Petersen Ranch Mitigation Bank or another CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee,*** at a 1:1 ratio or as otherwise determined through any applicable Incidental Take Permit (ITP) process. Floral resources ***mitigated through on-site or off-site replacement*** shall be replaced as close to their original location as feasible after Project construction. These resources shall be

maintained for the life of the Project and replanted or managed as needed to ensure habitat preservation."

If it would be helpful, I would be happy to meet with you and your team to provide additional information about the Petersen Ranch Mitigation Bank and its relevance to the Project.

Response 1-2

This comment suggests that Mitigation Measure (MM) BIO-9 be revised to allow for the use of credits from approved mitigation banks. Revisions have been made to MM BIO-9 in response to this comment and also to the CDFW comment letter. MM BIO-9 is revised as follows (*see strikethrough and double underline)* and is reflected in the Mitigation Monitoring and Reporting Program (MMRP):

MM BIO-9 **Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform ~~P~~protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).
- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

Antelope Valley Air Quality Management District
2551 West Avenue H Lancaster, CA 93536
661-723-8070
www.avaqmd.ca.gov
Barbara Lods, Executive Director

In reply, please refer to AV0525/059

May 12, 2025

Soyeon Choi
Los Angeles County
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Project: Project No. PRJ2023-002405-(5), Conditional Use Permit No. RPPL2023005137, Environmental Assessment No. RPPL2023005138, and State Clearinghouse Number 2025050245

To Whom It May Concern:

The Antelope Valley Air Quality Management District (District) has received the request to review **PRJ2023-002405-(5), Conditional Use Permit No. RPPL2023005137, Environmental Assessment No. RPPL2023005138, and State Clearinghouse Number 2025050245** requesting to construct, operate, and maintain a 4.99-megawatt ground-mounted utility-scale solar energy facility and up to 4.99-megawatt of energy storage capacity. This project site is located on ~40 acres in the A-2-2 (Heavy Agricultural) Zone at 49560 230th Street West in the City of Lancaster within the Antelope Valley Planning Area (unincorporated) (APN: 3278-025-001).

Prior to the start of any grading/construction activity, the District requires the proposed project to comply with the following:

- Project Information Form
- Rule 302-Construction Excavation Fee
- Dust Control Plan (DCP) with Signage
- Rule 219-Permitting
- CARB Equipment
- Rule 1403-Asbestos/Demolition
- Other: AO Renewable Energy DCP

Thank you for the opportunity to review this planning document. If you have any questions/concerns regarding the information presented in this letter, please contact me at (661) 723-8070 ext. 23 or blods@avaqmd.ca.gov.

Sincerely,

Barbara Lods

Barbara Lods
BJL/SS
Sent via Email

Letter 2

Antelope Valley Air Quality Management District
Barbara Lods, BJL/SS
2551 West Avenue H
Lancaster, CA 93536

Comment 2-1

The Antelope Valley Air Quality Management District (District) has received the request to review **PRJ2023-002405-(5), Conditional Use Permit No. RPPL2023005137, Environmental Assessment No. RPPL2023005138**, **and State Clearinghouse Number 2025050245** requesting to construct, operate, and maintain a 4.99-megawatt ground-mounted utility-scale solar energy facility and up to 4.99-megawatt of energy storage capacity. This project site is located on ~40 acres in the A-2-2 (Heavy Agricultural) Zone at 49560 230th Street West in the City of Lancaster within the Antelope Valley Planning Area (unincorporated) (APN: 3278-025-001).

Response 2-1

This comment acknowledges that the District received the City's request to review the Project. This comment provides a summary of the Project Description as presented in the IS/MND. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 2-2

Prior to the start of any grading/construction activity, the District requires the proposed project to comply with the following:

- Project Information Form
- Rule 302-Construction Excavation Fee
- Dust Control Plan (DCP) with Signage
- Rule 219-Permitting
- CARB Equipment
- Rule 1403-Asbestos/Demolition
- Other: AO Renewable Energy DCP

Thank you for the opportunity to review this planning document. If you have any questions/concerns regarding the information presented in this letter, please contact me at (661) 723-8070 ext. 23 or blods@avaqmd.ca.gov.

Response 2-2

This comment provides information about various rules and regulations which may apply to the Project prior to any grading/construction activity. As discussed on page 22 of the IS/MND, the Project would be required to comply with all applicable District Rules and Regulations. The Project would be required to establish a Fugitive Dust Control Plan, as specified in the Los Angeles County Code of Ordinances Section 22.140.510 based on the requirements of the District's Rule 403 and the District's CEQA Guideline Fugitive Dust Control Measures. Furthermore, all trucks

used during Project construction would be required to comply with all CARB regulations. Therefore, the Project would comply with applicable regulations listed in the comment, and no further response is warranted.

From: Elizabeth Topor
To: Soyeon Choi
Subject: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513
Date: Thursday, May 29, 2025 8:52:23 AM

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

My name is Elizabeth Topor. I am e-mailing to voice my concerns of above said project.

I own parcel #s 3278 025 023; 3278 025 026 (both of which the fence lines adjoin the proposed project); and parcel 3278 025 035 (my home on 10 acres adjoining the other 2 parcels). I have lived here since Dec. 2019 (25 yrs).

My concerns are the following, among others:

Foster Mom: Being a foster mom with Trinity Youth Services I am concerned with employees of solar project for the safety of children including my 4 adopted ones . My home is a favorite for soothing children, calming those with hyperactivity and behavior issues. They thrive out here in this peaceful environment. Many behavioral health/therapists have seen the wonders this life/environment has on the children. The children love seeing nature and being around so many different animals. Life here is definitely a slower paced one. The social workers love coming out here. They are always amazed at the beauty, the fresh air and the peacefulness. My direct social worker (Denisse Ireland) loves to come sit outside with the children on a picnic table. They deal with many tough issues and busy cities, so coming here is like a getaway for a short time.

Fires: After the Apollo Fire here which destroyed 2 homes including 40+ animals, and encircled my property and both neighbors, it is my concern for smoking employees and extreme fire hazard in this area. This fire burned up to my front fence and around 2 sides, coming in my back pasture where several pasture horses reside, taking out fences and gates, all of which had to be replaced.

Horses: Multiple horses have access to the fence line between me and proposed project. My concern is for workers petting, feeding, "messing" with the horses, getting injured by one of the horses. A major concern is choke, a condition where if fed an apple or core, carrots, and/or watermelon rinds among other items they run the risk of choke, a serious condition where the food is stuck making the horse unable to swallow or drink. Often times a veterinarian (which chances of getting a vet out are very rare due to our location) cannot relieve such a choke due to the food source; therefore, having to euthanize the horse.

Dirt/sand blowing: Living in the Antelope Valley wind is not unusual, but out here it is unlikely

to have any dust blowing, as is common on the very dry east side of the valley) a reason why I moved west 25 + years ago). This project is going to create lots of dust very near to my home and horses. I am an asthma sufferer so this is of concern to me as it can exacerbate my asthma.

Traffic: The dirt road (227th) on the east side of my pasture, if used for solar project traffic/workers will also create a lot of dust, noise and safety concern going back and forth on this little road we out here use to ride horses on, walk, and bike ride with children. Walking, riding, biking out here is very peaceful, soothing, and good for mind and body. It won't be if there is the danger and constant traffic back and forth on this dirt road.

Noise: It is very peaceful here with little noise (except the wind LOL). The neighbors are quiet. The air is fresh and clear. This project will be quite noisy with workers and all that goes along with it. Our peaceful life in the country will feel like we moved to the city. We are zoned heavy agriculture to grow things on like alfalfa hay, raise livestock on, not for metal solar panels.. This is another reason why people come to live out here, a way to get away from busy cities and noise.

Family and animal life: People move out here to get away from the hustle and bustle of a city, to have room to roam and not feel "boxed in", to raise families in a peaceful, healthy environment, and to have animals, including livestock. It is a wonderful environment for them to romp and play, to flourish. If we wanted city life, we would life in a city.

Lights and noise: Another great reason to live in the country is for the clear skies, the starry nights, the peace and quiet for sleeping, and no lights!. Lights and any night activity will disrupt this. Sleeping outside in the summer is a big treat for kids and parents alike. It is like going camping, but in your own backyard.

Reflection of panels: The reflection from the solar panels will at different times of the day put off a very unbearable glare, which shine into a person's eyes, the trainer/rider of a horse, and the horse itself, making this an issue for safety, not to mention if you know how that glare affects your eyes. Being a foster mom, I have had social workers ask, "what is all that water way out there"? We reply, "solar panels".

Views: This is an area where homes are somewhat spread out with BEAUTIFUL views of the mountains to the south, west, and especially the north. This project will directly impact this. The view in the winter of the northern mountains with snow on them is breathtaking! It is a scene for picture taking. It is something you long to see and never get tired of.

Wildlife: Living here in Neenach we get to see a lot of wildlife (which we love to feed). Here at my very own house the California Quail abounds, with babies born every year, Blue Jays,

Orioles, Red Robins, hawks, vultures, owls and we have also had the pleasure of a returning Roadrunner and Crane, an occasional duck and homing pigeon, along with the usual country critters of squirrels and rabbits (which we also feed), King snakes, Gopher snakes, Diamondback rattlers, and multiple Mojave Green rattlesnakes (which concerns me that they will be disrupted and head to my pastures). More recently we had two Cow Egrets come and visit the west neighbor's cows LOL. What a sight to see these birds fly over your head.

Please carefully consider my concerns and comments. Ruben Badano inherited the bare land from his father who passed away. There are many other things he could use it for, like agriculture, growing hay, which they have done in years past, raising livestock (they even have cattle pens, which his father raised some cattle in), subdividing and/or selling it off., or hey, just keep it the way it is because he has lived out here on that land for many years. I love my neighbors, we are brothers and sisters in Christ, but I strongly oppose this project because it will forever change the quality and reason for life out here in the country. Please keep solar far away from us country folks who moved here to be away from such things. Keep this a haven of peaceful beauty and nature for kids to thrive in. There are so many areas of open land where no people live or even want to live, where putting solar would not negatively impact their lives.

Thank you,

Sincerely,

Elizabeth Topor

Letter 3

Elizabeth Topor

Comment 3-1

My name is Elizabeth Topor. I am e-mailing to voice my concerns of above said project.

I own parcel #s 3278 025 023; 3278 025 026 (both of which the fence lines adjoin the proposed project); and parcel 3278 025 035 (my home on 10 acres adjoining the other 2 parcels). I have lived here since Dec. 2019 (25 yrs).

My concerns are the following, among others:

Response 3-1

This comment provides information about the commenter and introduces the remainder of the comment letter. As this comment does not raise any specific issue with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-2

Foster Mom: Being a foster mom with Trinity Youth Services I am concerned with employees of solar project for the safety of children including my 4 adopted ones. My home is a favorite for soothing children, calming those with hyperactivity and behavior issues. They thrive out here in this peaceful environment. Many behavioral health/therapists have seen the wonders this life/environment has on the children. The children love seeing nature and being around so many different animals. Life here is definitely a slower paced one. The social workers love coming out here. They are always amazed at the beauty, the fresh air and the peacefulness. my direct social worker (Denisse Ireland) loves to come sit outside with the children on a picnic table. They deal with many tough issues and busy cities, so coming here is like a getaway for a short time.

Response 3-2

This comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-3

Fires: After the Apollo Fire here which destroyed 2 homes including 40+ animals, and encircled my property and both neighbors, it is my concern for smoking employees and extreme fire hazard in this area. This fire burned up to my front fence and around 2 sides, coming in my back pasture where several pasture horses reside, taking out fences and gates, all of which had to be replaced.

Response 3-3

This comment raises concerns related to a historic fire. As discussed on page 4 of the IS/MND, the Project's battery energy storage system (BESS) component would include safety measures including active ventilation, fire detection and remote shutdown, fireproof insulation, and internal fire suppression ventilation. The BESS would be designed to comply with all applicable codes in Chapter 12 of the County of Los Angeles Fire Code as well as Energy Storage Standard UL 9540 and UL 9540a. Furthermore, access roads to the Project Site would be wide enough to

accommodate emergency vehicles and would be designed to comply with County building and fire department standards. As this comment does not raise any specific issues with respect to the content and adequacy of the Draft IS/MND, no further response is warranted.

Comment 3-4

Horses: Multiple horses have access to the fence line between me and proposed project. My concern is for workers petting, feeding, "messing" with the horses, getting injured by one of the horses. A major concern is choke, a condition where if fed an apple or core, carrots, and/or watermelon rinds among other items they run the risk of choke, a serious condition where the food is stuck making the horse unable to swallow or drink. Often times a veterinarian (which chances of getting a vet out are very rare due to our location) cannot relieve such a choke due to the food source; therefore, having to euthanize the horse.

Response 3-4

This comment provides information about the presence of horses near the Project Site and potential safety concerns regarding the horses. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-5

Dirt/sand blowing: Living in the Antelope Valley wind is not unusual, but out here it is unlikely to have any dust blowing, as is common on the very dry east side of the valley) a reason why I moved west 25 + years ago). This project is going to create lots of dust very near to my home and horses. I am an asthma sufferer so this is of concern to me as it can exacerbate my asthma.

Response 3-5

This comment raises concerns over dust created by the Project. As discussed on page 8 of the IS/MND, non-potable water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Additionally, as stated on page 22 of the IS/MND, the Project would be required to comply with AVAQMD Rule 403, which requires periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions. Additionally, Los Angeles County Code of Ordinances Section 22.140.510 requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403 and AVAQMD CEQA Guideline Fugitive Dust Control Measures. Therefore, the Project would be required to comply with various regulations that would reduce the potential for dust created by the Project.

Comment 3-6

Traffic: The dirt road (227th) on the east side of my pasture, if used for solar project traffic/workers will also create a lot of dust, noise and safety concern going back and forth on this little road we out here use to ride horses on, walk, and bike ride with children. Walking, riding, biking out here is very peaceful, soothing, and good for mind and body. It won't be if there is the danger and constant traffic back and forth on this dirt road.

Response 3-6

This comment asserts that traffic from workers would create dust, noise, and safety concerns on 227th Street. As stated on page 9 of the IS/MND, local access to the Project Site would be accessed via W Avenue C 8 and 230th Street W. Therefore, construction workers and maintenance workers during Project operation would not utilize 227th Street to access the Project Site. See Response 3-5 regarding dust. See Response 3-7 regarding noise.

Comment 3-7

Noise: It is very peaceful here with little noise (except the wind LOL). The neighbors are quiet. The air is fresh and clear. This project will be quite noisy with workers and all that goes along with it. Our peaceful life in the country will feel like we moved to the city. We are zoned heavy agriculture to grow things on like alfalfa hay, raise livestock on, not for metal solar panels. This is another reason why people come to live out here, a way to get away from busy cities and noise.

Response 3-7

This comment raises concerns about noise impacts from the Project. As discussed on page 77 through 83, noise impacts during Project construction (e.g., from construction equipment and trucks) and operation (e.g., from worker traffic, photovoltaic [PV] systems, transformers, and BESS) would be less than significant. Construction noise would be temporary, lasting only during the approximately seven months anticipated for construction. Furthermore, operational noise would not exceed the County's daytime or nighttime noise standards and impacts would be less than significant. While the Project Site is zoned Heavy Agricultural (A-2-2), pursuant to Los Angeles County Code of Ordinances Table 22.16.030-B, the use of utility-scale solar energy facilities is a permitted use with an approved CUP in the A-2 zone.

Comment 3-8

Family and animal life: People move out here to get away from the hustle and bustle of a city, to have room to roam and not feel "boxed in", to raise families in a peaceful, healthy environment, and to have animals, including livestock. It is a wonderful environment for them to romp and play, to flourish. If we wanted city life, we would life *[sic]* in a city.

Response 3-8

As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 3-9

Lights and noise: Another great reason to live in the country is for the clear skies, the starry nights, the peace and quiet for sleeping, and no lights!. *[sic]* Lights and any night activity will disrupt this. Sleeping outside in the summer is a big treat for kids and parents alike. It is like going camping, but in your own backyard.

Response 3-9

This comment raises concerns related to lights and noise. As discussed on page 17 of the IS/MND, Project construction and operation would not create significant impacts related to light and glare. During Project construction, lights would be shielded and turned downward away from the sky,

and no light spillage would occur. Daytime glare could potentially occur during construction; however, it would be short-term and temporary in nature. Operations of the Project would introduce new sources of light and glare that are typically associated with solar facilities. The Project would be required to comply with the County's Rural Outdoor Lighting District Ordinance, which requires that only the minimum amount of lighting is used, lights are to be shielded and directed downwards and away from the sky, and no light spillage occurs. Kimley-Horn prepared a Solar Glare and Glint Analysis Report for the Project (see Appendix A of the IS/MND). Based on the analysis provided therein, the potential glare receptors located in proximity to the Project are motorists from 230th Street W, motorists from State Route (SR) 138, and single-family homes situated around the Project Site. As determined from the analysis, there would be low glare potential from four of the observation points, but no glare expected to impact motorists. Therefore, the Project would not create a new source of substantial glare that would adversely affect day or nighttime views in the area.

Comment 3-10

Reflection of panels: The reflection from the solar panels will at different times of the day put off a very unbearable glare, which shine into a person's eyes, the trainer/rider of a horse, and the horse itself, making this an issue for safety, not to mention if you know how that glare affects your eyes. Being a foster mom, I have had social workers ask, "what is all that water way out there"? We reply, "solar panels".

Response 3-10

As discussed in Response 3-9, the Solar Glare and Glint Analysis determined that there would be low glare potential at surrounding receptors and that glare would not impact motorists. As further provided in the IS/MND, the PV panels would not be expected to cause significant glare as the panels will absorb sunlight during daylight hours and therefore, produce minimal reflectivity. PV solar panels are designed to be highly absorptive of light that strikes the panel surfaces, generating electricity rather than reflecting light. Single-axis tracker systems are designed to track the sun to maximize panel exposure to the sun, which would direct the majority of any reflected light back toward the sun in a skyward direction. PV panels have a lower index of refraction/reflectivity than common sources of glare in residential environments. The glare and reflectance levels from a given PV system are lower than the glare and reflectance levels of steel, snow, standard glass, plexiglass, and smooth water. Single-axis tracker systems would employ a motor mechanism that would allow the arrays to track the path of the sun throughout the day. In the morning, the panels would face the east. Throughout the day, the panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise. Therefore, the solar PV panels would not create a new source of substantial glare that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

Comment 3-11

Views: This is an area where homes are somewhat spread out with BEAUTIFUL views of the mountains to the south, west, and especially the north. This project will directly impact this. The

view in the winter of the northern mountains with snow on them is breathtaking! It is scene for picture taking. It is something you long to see and never get tired of.

Response 3-11

This comment raises concerns related to scenic vistas. As discussed on page 14 through 15 of the IS/MND, the Project Site and surrounding public roads have views of mountain foothills and ridgelines to the north, west, and south. However, the Project Site is also surrounded by existing solar projects, with mountain foothills and ridgelines in the background. As such, construction and operation of the Project would be consistent with the visual character of the Project area, which is already dominated by renewable energy facilities. Further, the introduction of Project components would not substantially obstruct or interrupt views of the surrounding mountain foothills and ridgelines which, due to their height, would remain visually prominent. Less than significant impacts on scenic vistas are expected to occur.

Comment 3-12

Wildlife: Living here in Neenach we get to see a lot of wildlife (which we love to feed). Here at my very own house the California Quail abounds, with babies born every year, Blue Jays, Orioles, Red Robins, hawks, vultures, owls and we have also had the pleasure of a returning Roadrunner and Crane, an occasional duck and homing pigeon, along with the usual country critters of squirrels and rabbits (which we also feed), King snakes, Gopher snakes, Diamondback rattlers, and multiple Mojave Green rattlesnakes (which concerns me that they will be disrupted and head to my pastures). More recently we had two Cow Egrets come and visit the west neighbor's cows LOL. What a sight to see these birds fly over your head.

Response 3-12

This comment provides information related to wildlife near the Project Site. As discussed on page 33 through 43 of the IS/MND, the Project would be required to implement mitigation measures **MM BIO 1** through **MM BIO 11**, which would reduce impacts to special-status species to less than significant. Furthermore, the Project Site has not been designated as critical habitat by the United States Fish and Wildlife Service (USFWS), nor has it been set aside for conservation by any other entity. Although the Project Site may provide low-quality habitat for some species, the Project is subject to robust mitigation measures designed to avoid and minimize impacts to these species. Because of this, the Project would not result in significant impacts to special-status species or their habitat.

Comment 3-13

Please carefully consider my concerns and comments. Ruben Badano inherited the bare land from his father who passed away. There are many other things he could use it for, like agriculture, growing hay, which they have done in years past, raising livestock (they even have cattle pens, which his father raised some cattle in), subdividing and/or selling it off., or hey, just keep it the way it is because he has lived out here on that land for many years. I love my neighbors, we are brothers and sisters in Christ, but I strongly oppose this project because it will forever change the quality and reason for life out here in the country. Please keep solar far away from us country folks who moved here to be away from such things. Keep this a haven of peaceful beauty and

nature for kids to thrive in. There are so many areas of open and where no people live or even want to live, where putting solar would not negatively impact their lives.

Response 3-13

This comment provides a conclusion to the comment letter. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Ryan Nyberg

From: Elizabeth Topor <beyebranch@msn.com>
Sent: Friday, May 30, 2025 5:26 PM
To: Soyeon Choi
Subject: Additional notes Re: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

I wanted to take a moment to clarify a few concerns in my previous e-mail.

Re: Noise - The noise I am referring to is basic day-to-day noise which is uncommon to us out here, and not noise levels established as within some set limits as acceptable. As I walked around outside this morning doing chores, I realized I needed to clarify this. "Normal" country noise out here is any noise produced by the sounds of a variety of birds, the neighbor's cows mooing and their goats bleating at food time, my horses chewing, snorting/blowing and squealing, a dog playing or barking for a short time to say, "coyote" or "stranger", and the occasional bleats that our own goat and ewes make when they see us. People actually have videos or music they play to get this effect, but out here, we get to experience it every day, any time we step outside. We love to lay on a lounge chair outside with a good book or to take a quick nap while listening to the sounds of nature (birds and horses). This is a therapeutic atmosphere. It puts a smile on your face. You feel calm and that "all is well" with the world. This is the epitome of country living.

Noise out here carries. If someone at the corner store is yelling or arguing, we can hear them. If the Badanos have their grandchildren over and they are outside, we can hear them. Wound does travel, especially with the wind. That being said, the noise from this project which is not normal pleasant noise, will affect us. It will be heard throughout the day.

Re: Views: While one might be able to see above the solar panels to look at the mountains, that is not the only view I am talking about, but the ground level view leading to and including the mountains. The solar project is in the direct pathway to that view for me; meaning you do not just look up into the sky but you look across the open fields of green plants/vegetation, amazing wildflowers with wide open, gently sloping upward land, stretched across many miles to the mountains (which sadly this year the flowers were scarce and did not last long, possibly effected by the Apollo fire which burned so much of our vegetation and has not had a chance to regrow and an overall dry winter). The whole area and sights of open land gently sloping to the mountains is one you cannot exclude. Living on the eastside was flat, dry, and dirt, dirt, dirt. Nothing green to see, not much wildlife, except an occasional rattlesnake. It was, truth be told, ugly! A great idea would be to have solar on the eastside, as there are not a lot of homes, flat land, and fully open to sunshine.

Re: My asthma - My asthma tends to start and exacerbate mid-November thru the end of April/early May making my use of an inhaler necessary throughout the day and night. I have in the not-too-distant past had a small, right lower lobe pneumonia. I am 63 yrs. old and very concerned regarding an increased risk of Valley

Fever with this project, even with their attempt of preventative measures. Last year my doctor said they were seeing an increasing number of Valley Fever cases. I am also concerned for the children in my home. Our distance from the project makes us easy targets. We access the pastures to check fences, catch and bring a horse in, walk and ride in the pastures, walk back and forth to neighbors to care for their place while they are gone, and live in close proximity to this project.

Flight path: I am concerned regarding flight patterns for military and other entities' planes as they commonly fly quite low and right over my pastures, barn, home, and other structures. This includes helicopters, jets, etc. Could the glare from this project cause the pilots to err. This would be disastrous for the pilots, us, and the animals.

Please add these clarified comments to my previous e-mail.

Thank you again,

Elizabeth Topor

From: Soyeon Choi <schoi@planning.lacounty.gov>
Sent: Thursday, May 29, 2025 1:24 PM
To: Elizabeth Topor <beyebranch@msn.com>
Subject: RE: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

Dear Ms. Topor,

I appreciate your careful review of the project and comments. I will forward your comments to the applicant immediately. Your comments will also be added to the project folder and hearing package for review and consideration by the Regional Planning Commission.

Thank you,

SOYEON CHOI (she/her/hers)
SENIOR PLANNER, North County Development Services
Office: (213) 974-6443 • Direct: (213) 893-7021
Email: schoi@planning.lacounty.gov

CONFIDENTIALITY NOTICE: This email message, including any attachments, from the Department of Regional Planning is intended for the official and confidential use of the recipients to whom it is addressed. It contains information that may be confidential, privileged, work product, or otherwise exempted from disclosure under applicable law. If you have received this message in error, be advised that any review, disclosure, use, dissemination, distribution, or reproduction of this message or its contents is strictly prohibited. Please notify us immediately by reply email that you have received this message in error, and destroy this message, including any attachments.

From: Elizabeth Topor <beyebranch@msn.com>
Sent: Thursday, May 29, 2025 8:49 AM
To: Soyeon Choi <schoi@planning.lacounty.gov>
Subject: Attn: North County Section (Soyeon Choi), re: 230th Street Solar Project No. PRJ2023-002405-(5) Conditional use permit No. RPPL202300513

CAUTION: External Email. Proceed Responsibly.

Dear Mr. Choi,

My name is Elizabeth Topor. I am e-mailing to voice my concerns of above said project.

I own parcel #s 3278 025 023; 3278 025 026 (both of which the fence lines adjoin the proposed project); and parcel 3278 025 035 (my home on 10 acres adjoining the other 2 parcels). I have lived here since Dec. 2019 (25 yrs).

My concerns are the following, among others:

Foster Mom: Being a foster mom with Trinity Youth Services I am concerned with employees of solar project for the safety of children including my 4 adopted ones . My home is a favorite for soothing children, calming those with hyperactivity and behavior issues. They thrive out here in this peaceful environment. Many behavioral health/therapists have seen the wonders this life/environment has on the children. The children love seeing nature and being around so many different animals. Life here is definitely a slower paced one. The social workers love coming out here. They are always amazed at the beauty, the fresh air and the peacefulness. My direct social worker (Denisse Ireland) loves to come sit outside with the children on a picnic table. They deal with many tough issues and busy cities, so coming here is like a getaway for a short time.

Fires: After the Apollo Fire here which destroyed 2 homes including 40+ animals, and encircled my property and both neighbors, it is my concern for smoking employees and extreme fire hazard in this area. This fire burned up to my front fence and around 2 sides, coming in my back pasture where several pasture horses reside, taking out fences and gates, all of which had to be replaced.

Horses: Multiple horses have access to the fence line between me and proposed project. My concern is for workers petting, feeding, "messing" with the horses, getting injured by one of the horses. A major concern is choke, a condition where if fed an apple or core, carrots, and/or watermelon rinds among other items they run the risk of choke, a serious condition where the food is stuck making the horse unable to swallow or drink. Often times a veterinarian (which chances of getting a vet out are very rare due to our location) cannot relieve such a choke due to the food source; therefore, having to euthanize the horse.

Dirt/sand blowing: Living in the Antelope Valley wind is not unusual, but out here it is unlikely to have any dust blowing, as is common on the very dry east side of the valley) a reason why I moved west 25 + years ago). This project is going to create lots of dust very near to my home and horses. I am an asthma sufferer so this is of concern to me as it can exacerbate my asthma.

Traffic: The dirt road (227th) on the east side of my pasture, if used for solar project traffic/workers will also create a lot of dust, noise and safety concern going back and forth on this little road we out here use to ride horses on, walk, and bike ride with children. Walking, riding, biking out here is very peaceful, soothing, and good for mind and body. It won't be if there is the danger and constant traffic back and forth on this dirt road.

Noise: It is very peaceful here with little noise (except the wind LOL). The neighbors are quiet. The air is fresh and clear. This project will be quite noisy with workers and all that goes along with it. Our peaceful life in the country will feel like we moved to the city. We are zoned heavy agriculture to grow things on like alfalfa hay,

raise livestock on, not for metal solar panels.. This is another reason why people come to live out here, a way to get away from busy cities and noise.

Family and animal life: People move out here to get away from the hustle and bustle of a city, to have room to roam and not feel "boxed in", to raise families in a peaceful, healthy environment, and to have animals, including livestock. It is a wonderful environment for them to romp and play, to flourish. If we wanted city life, we would life in a city.

Lights and noise: Another great reason to live in the country is for the clear skies, the starry nights, the peace and quiet for sleeping, and no lights!. Lights and any night activity will disrupt this. Sleeping outside in the summer is a big treat for kids and parents alike. It is like going camping, but in your own backyard.

Reflection of panels: The reflection from the solar panels will at different times of the day put off a very unbearable glare, which shine into a person's eyes, the trainer/rider of a horse, and the horse itself, making this an issue for safety, not to mention if you know how that glare affects your eyes. Being a foster mom, I have had social workers ask, "what is all that water way out there"? We reply, "solar panels".

Views: This is an area where homes are somewhat spread out with BEAUTIFUL views of the mountains to the south, west, and especially the north. This project will directly impact this. The view in the winter of the northern mountains with snow on them is breathtaking! It is a scene for picture taking. It is something you long to see and never get tired of.

Wildlife: Living here in Neenach we get to see a lot of wildlife (which we love to feed). Here at my very own house the California Quail abounds, with babies born every year, Blue Jays, Orioles, Red Robins, hawks, vultures, owls and we have also had the pleasure of a returning Roadrunner and Crane, an occasional duck and homing pigeon, along with the usual country critters of squirrels and rabbits (which we also feed), King snakes, Gopher snakes, Diamondback rattlers, and multiple Mojave Green rattlesnakes (which concerns me that they will be disrupted and head to my pastures). More recently we had two Cow Egrets come and visit the west neighbor's cows LOL. What a sight to see these birds fly over your head.

Please carefully consider my concerns and comments. Ruben Badano inherited the bare land from his father who passed away. There are many other things he could use it for, like agriculture, growing hay, which they have done in years past, raising livestock (they even have cattle pens, which his father raised some cattle in), subdividing and/or selling it off., or hey, just keep it the way it is because he has lived out here on that land for many years. I love my neighbors, we are brothers and sisters in Christ, but I strongly oppose this project because it will forever change the quality and reason for life out here in the country. Please keep solar far away from us country folks who moved here to be away from such things. Keep this a haven of peaceful beauty and nature for kids to thrive in. There are so many areas of open land where no people live or even want to live, where putting solar would not negatively impact their lives.

Thank you,

Sincerely,

Elizabeth Topor

Letter 4

Elizabeth Topor

Comment 4-1

I wanted to take a moment to clarify a few concerns in my previous e-mail.

Re: Noise - The noise I am referring to is basic day-to-day noise which is uncommon to us out here, and not noise levels established as within some set limits as acceptable. As I walked around outside this morning doing chores, I realized I needed to clarify this. "Normal" country noise out here is any noise produced by the sounds of a variety of birds, the neighbor's cows mooing and their goats bleating at food time, my horses chewing, snorting/blowing and squealing, a dog playing or barking for a short time to say, "coyote" or "stranger", and the occasional bleats that our own goat and ewes make when they see us. People actually have videos or music they play to get this effect, but out here, we get to experience it every day, any time we step outside. We love to lay on a lounge chair outside with a good book or to take a quick nap while listening to the sounds of nature (birds and horses). This is a therapeutic atmosphere. It puts a smile on your face. You feel calm and that "all is well" with the world. This is the epitome of country living.

Response 4-1

This comment raises concerns related to noise. As discussed in Response 3-7, noise impacts during Project construction and operations would be less than significant. Project construction would be in compliance with the County's allowable construction hours and would be limited to the daytime hours of 7 a.m. to 8 p.m. Monday through Saturday and prohibited on Sundays and on Holidays. Furthermore, operational noise would not exceed the County's daytime or nighttime noise standards, and noise from most Project components would be inaudible at the nearest receptor. Impacts would be less than significant.

Comment 4-2

Noise out here carries. If someone at the corner store is yelling or arguing, we can hear them. If the Badanos have their grandchildren over and they are outside, we can hear them. Wound does travel, especially with the wind. That being said, the noise from this project which is not normal pleasant noise, will affect us. It will be heard throughout the day.

Response 4-2

This comment raises concerns related to noise. See Response 3-7 and 4-1.

Comment 4-3

Re: Views: While one might be able to see above the solar panels to look at the mountains, that is not the only view I am talking about, but the ground level view leading to and including the mountains. The solar project is in the direct pathway to that view for me; meaning you do not just look up into the sky but you look across the open fields of green plants/vegetation, amazing wildflowers with wide open, gently sloping upward land, stretched across many miles to the mountains (which sadly this year the flowers were scarce and did not last long, possibly effected by the Apollo fire which burned so much of our vegetation and has not had a chance to regrow and an overall dry winter). The whole area and sights of open land gently sloping to the

mountains is one you cannot exclude. Living on the eastside was flat, dry, and dirt, dirt, dirt. Nothing green to see, not much wildlife, except an occasional rattlesnake. It was, truth be told, ugly! A great idea would be to have solar on the eastside, as there are not a lot of homes, flat land, and fully open to sunshine.

Response 4-3

This comment raises concerns related to views and scenic vistas. See Response 3-11.

Comment 4-4

Re: My asthma - My asthma tends to start and exacerbate mid-November thru the end of April/early May making my use of an inhaler necessary throughout the day and night. I have in the not-too-distant past had a small, right lower lobe pneumonia. I am 63 yrs. old and very concerned regarding an increased risk of Valley Fever with this project, even with their attempt of preventative measures. Last year my doctor said they were seeing an increasing number of Valley Fever cases. I am also concerned for the children in my home. Our distance from the project makes us easy targets. We access the pastures to check fences, catch and bring a horse in, walk and ride in the pastures, walk back and forth to neighbors to care for their place while they are gone, and live in close proximity to this project.

Response 4-4

This comment raises concerns related to Valley Fever. As discussed on pages 30 and 31 of the IS/MND, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. The Project is subject to Los Angeles County Code of Ordinances Section 22.140.510, which requires establishing a Fugitive Dust Control Plan based on the requirements of AVAQMD Rule 403. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the Project Site. Examples of best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track out onto public roads, and the minimization of non-essential grading during high wind conditions. Due to the distance of the nearest sensitive receptor, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. As there would be no ground-disturbing activities during Project operation, the potential for Valley Fever occurrences would be limited during Project operation.

Comment 4-5

Flight path: I am concerned regarding flight patterns for military and other entities' planes as they commonly fly quite low and right over my pastures, barn, home, and other structures. This includes helicopters, jets, etc. Could the glare from this project cause the pilots to err. This would be disastrous for the pilots, us, and the animals.

Response 4-5

As discussed on page 18 of the IS/MND, the PV panels would not be expected to cause significant glare as the panels absorb sunlight during daylight hours and therefore produce minimal reflectivity that would affect day or nighttime views. Furthermore, as discussed on page 83 of

the IS/MND, the Project is not located within two miles of a public airport. As such, the Project would not have significant impacts related to glare that may affect flight paths.

The remainder of this letter can be found in Letter 3 in Responses to Comments 3-1 through 3-13.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 11, 2025

Soyeon Choi
Los Angeles County Department of Regional Planning
320 W. Temple Street, 13th Floor
Los Angeles, CA 90012
schoi@planning.lacounty.gov

SUBJECT: MITIGATED NEGATIVE DECLARATION FOR THE 230TH STREET SOLAR PROJECT, SCH NO. 2025050245, CITY OF LANCASTER, LOS ANGELES COUNTY

Dear Soyeon Choi:

The California Department of Fish and Wildlife (CDFW) has reviewed the Mitigated Negative Declaration (MND) for the 230th Street Solar Project (Project), which has been proposed by Los Angeles County Department of Regional Planning (Lead Agency; County) on behalf of RPCA Solar 12, LLC (Project proponent).

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

proposed may result in “take”, as defined by State law, of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 et seq.), CDFW recommends the County obtain appropriate authorization under the Fish and Game Code.

Project Summary

Project Proponent: RPCA Solar 12, LLC.

Objective: According to the MND, the proposed Project includes construction and operation of ground-mounted photovoltaic (PV) solar panels and a battery energy storage system (BESS) facility that would generate up to 4.99 megawatts (MW) of alternating current. The Project would consist of the following components: PV solar modules, BESS, underground electrical conductors, balance of system equipment, access roads, and fencing. The Project would tie into an existing electrical distribution system (owned by Southern California Edison), which is located southwest of and adjacent to the Project site along 230th Street W.

Site access for the 230th Solar Facility would be provided via the construction of a new driveway connecting to 230th Street W, a public roadway located along the western boundary of the Project site. The driveway entrance would be surfaced with gravel, transitioning to compacted native soil beyond the entrance to minimize soil disturbance while maintaining vehicular functionality.

The Project includes the development of new on-site access roads, which would:

- Encircle the entire solar array to ensure full perimeter accessibility;
- Bisect the site in a west-to-east orientation, providing a direct internal connection from the driveway entrance on 230th Street W to the eastern boundary of the Project site;
- Provide direct access to the BESS facility located within the Project area; and,
- Ensure that no PV solar panel is located more than 175 feet from a fire access road, enhancing emergency response capability.

A 10,000-gallon water tank would also be installed adjacent to the BESS and access gate on the southern side of the Project site. The water tank would have a supply outlet of 2.5 inches in diameter. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades. To mitigate a potential increase in runoff flows, an infiltration retention basin will be built on the Project site with an approximate volume of 42,336 cubic feet.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Location: According to the MND, the Project would occupy approximately 31 acres of a 39-acre parcel (Los Angeles County Assessor Parcel Number 3278-025-001). The Project site is generally located at 49560 230th Street W, near the community of Lancaster.

Biological Setting:

The Project site primarily consists of undeveloped desert habitat located near rural residences and existing solar developments. Vegetation on-site includes cheatgrass grassland (*Bromus tectorum*), inactive agricultural and ruderal land, and rubber rabbitbrush scrub (*Ericameria nauseosa*) that has naturally recolonized since agricultural activities ceased.

Several special-status species have a moderate potential to occur in the vicinity, including Crotch's bumble bee (*Bombus crotchii*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), LeConte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides*), prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), and western meadowlark (*Sturnella neglecta*). Additionally, several common native and nonnative bird species such as white-crowned sparrow (*Zonotrichia leucophrys*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*) may nest or forage within or near the site.

Two special-status mammal species—the American badger (*Taxidea taxus*), a California Species of Special Concern (SSC), and the desert kit fox (*Vulpes macrotis arsipus*) which is protected by Title 14, section 460 of the California Code of Regulations (furbearing mammals)—have low potential to occur on the Project site.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

Comment #1: Impacts to Raptors and Sensitive Species

Issue: The Project may impact raptors and sensitive species protected under CESA or designated as an SSC.

Specific impacts: Several sensitive species have been regularly observed nesting and foraging throughout the Palmdale and Lancaster area. The Project may potentially result in the loss of foraging and nesting habitat for CESA-listed Swainson's hawk, and CESA candidate listed burrowing owl and Crotch's bumble bee. The Project may also

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

impact the following SSCs: loggerhead shrike, LeConte's thrasher, mountain plover, ferruginous hawk, prairie falcon, short-eared owl, and American badger. Project activities may result in a loss of refugia, nest abandonment, and/or decreased feeding frequency. This could result in increased nestling mortality, a significant impact on these imperiled species. The Project may also result in a loss of breeding and/or foraging habitat.

Why impacts would occur: The Project area contains suitable habitat and recent documented occurrences of some of these sensitive species. Project activities include vegetation and tree removal, grading, and construction. Project activities are likely to result in elevated levels of noise, human activity, dust, ground vibrations, and vegetation disturbance. These disturbances and stressors occurring near potential nests could cause individuals to abandon their nests, resulting in the loss of fertile eggs or nestlings. The Mitigation Measures proposed in the MND (i.e., MM BIO-1, MM BIO-2, MM BIO-6, MM BIO-8, and MM BIO-9) may not (1) provide a sufficiently large buffer to avoid take, (2) commit adequate mitigation for the Project (particularly if take occurs), (3) adopt specific performance standards the mitigation will achieve, and/or (4) identify the type(s) of potential action(s) that can feasibly achieve the performance standard(s) that will be considered, analyzed, and potentially incorporated in the mitigation measure (CEQA Guidelines, § 15126.4).

Evidence impacts would be significant: CDFW considers adverse impacts to a species protected by CESA, absent appropriate mitigation, to be significant under CEQA. Under CESA, take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 86, 2062, 2067, 2068, 2080, 2085; Cal. Code Regs., tit. 14, § 786.9).

CDFW considers impacts to CESA-listed species a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. In addition, nests of all native bird species are protected under State laws and regulations, including Fish and Game Code, sections 3503 and 3503.5.

An SSC is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;
- is listed as under the Endangered Species Act, but not CESA-, threatened, or endangered; meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify the species for State threatened or endangered status; and/or,
- has naturally small populations exhibiting high susceptibility to risk from any

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

factor(s), that if realized, could lead to declines that would qualify it for CESA threatened or endangered status (CDFW 2025).

CEQA provides protection not only for CESA-listed species, but for any species including but not limited to SSC's which can be shown to meet the criteria for State listing. These SSC's meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380). Therefore, take of SSC's could require a mandatory finding of significance (CEQA Guidelines, § 15065). Inadequate avoidance and mitigation measures could result in continual substantial adverse direct and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species by CDFW.

Recommended Potentially Feasible Mitigation Measure(s):

Swainson's Hawk

CDFW released guidance for Swainson's hawk entitled Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (2010). CDFW recommends conducting focused surveys for Swainson's hawk following the 2010 guidance and disclosing the results in the Project's environmental document.

CDFW recommends the addition of the following underlined language to MM BIO-2:

MM BIO-2: <u>If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site. Consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have a take authorization prior to any activity that may result in take of CESA-protected species.</u>

Burrowing Owl

According to the MND, "…Rincon biologists performed a protocol-level burrowing owl (BUOW) survey on April 3, 2025 according to the CDFW 2012 *Staff Report on Burrowing Owl Mitigation.* No burrows of suitable size (4 inches or greater) were observed during the survey, and no BUOW were detected. Nevertheless, even with the low potential for BUOW to occur on the Project Site, the Project would implement pre-construction surveys and avoidance measures specific to BUOW" (p. 34).

CDFW recommends that MM BIO-6 is revised to incorporate the underlined language for burrowing owl and omit the language in strikethrough:

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

MM-BIO-6: A qualified biologist shall conduct surveys in accordance with protocols currently accepted by CDFW ~~following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012)~~ during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNNDB and develop a site-specific plan to avoid impacts on burrowing owl. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and~~/or~~ consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have take authorization prior to any activity that may result in take of CESA-protected species. ~~to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration~~

Crotch's Bumble Bee

According to the MND, "A protocol survey pass was performed on April 21, 2025, by two qualified Rincon biologists, each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed. Accordingly, there is low potential for Crotch's bumble bee to occur on the Project Site. Nevertheless, the County would implement MM BIO-9 to minimize potential impacts to Crotch's bumble bee" (p. 35).

CDFW recommends that MM BIO-9 is revised to incorporate the underlined language for Crotch's bumble bee and omit the language in strikethrough:

MM-BIO-9: A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project site. If no Crotch's bumble bees are detected on the site, no further mitigation will be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Nesting Birds

A temporary halt of Project activities within buffers during nesting season does not constitute effective mitigation for the purposes of offsetting Project impacts associated with habitat and tree loss. Effective mitigation is necessary to compensate for the long-term and temporal loss of ecological function, including permanent removal of nesting and foraging habitat. To ensure habitat and tree losses are sufficiently offset, mitigation should be designed to replace or enhance habitat of equal or greater ecological value, based on acreage of impact, tree loss, quality and composition of vegetation, and conservation status of the wildlife species affected.

CDFW recommends that MM BIO-1 is revised to incorporate the underlined language and omit the language in strikethrough:

MM BIO-1: To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and California Fish and Game Code, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15 (as early as January 1 for some raptors)) ~~(February 1 through August 31)~~ to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500 ~~300~~-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of the nesting bird survey findings will be provided to the County.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel (and CDFW depending on the species) shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County and CDFW. The memorandum shall include graphics and figures as necessary to support the results of the survey.

Comment #2: MM BIO-10 Vegetation and Revegetation

Issue: The Project will have impacts to vegetation communities, including cheat grass grassland, rubber rabbitbrush scrub, and small patches of native wildflowers such as California poppy (*Eschscholzia californica*) and yellowray goldfields (*Lasthenia glabrata*), which provide important nesting and foraging habitat for wildlife and avian species.

Specific impacts: Project activities such as the vegetation clearing and grading may eliminate or reduce habitat used by wildlife for nesting, foraging and cover, especially for species that rely on native vegetation structure and small mammal burrows observed throughout the site. The removal and degradation of these plant communities may cause long-term loss of ecological function across the site.

Why impacts would occur: According to the MND, the Project likely supports local movement patterns and provides food and cover resources for common wildlife species. In addition, small mammal burrows have been observed throughout the Project site suggesting active use by ground-dwelling species.

Evidence impacts would be significant: The traditional method of solar construction is “blade and grade” which involves blading vegetation and grading resulting in compaction of the soil. According to Karban et al. (2024), construction practices often include the removal of all native vegetation with “blade and grade”, eliminating breeding, foraging, shelter, for ground-dwelling species and eliminates migratory stop-over habitats of avian species. Per CEQA Guidelines, section 15065 (a), a project may have a significant effect on biological resources if the project substantially reduces the habitat of a fish or wildlife species; threatens to eliminate a plant community; or has the potential to restrict the range of endangered, rare, or threatened species.

Recommended Potentially Feasible Mitigation Measure(s):

Recommendation #1: The implementation of MM BIO-10 does not constitute effective mitigation for the purposes of offsetting Project impacts associated with the loss of nesting and foraging habitat. CDFW recommends the Project proponent consider an alternative construction method instead of the traditional “blade and grade” method, where vegetation is crushed in some areas, but soils and vegetation are otherwise left intact (“drive and crush”). Leaving vegetation crushed with the “drive and crush”

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

method, leaves roots intact and allows vegetation to more successfully regenerate. This alternative construction method can create an opportunity for vegetation to be left between panel rows and elsewhere to provide some habitat for desert-dwelling avian species and ameliorate some habitat effects (Karban et al. 2024).

Recommendation #2: To offset the loss of vegetation, CDFW recommends the County include landscape buffers for the Project along the northern and eastern boundaries of the Project site. The Project, as currently proposed, only considers buffers along the western and southern boundaries.

Recommendation #3: CDFW recommends the County's proposed planting palette for the landscape buffer and for the revegetation of decommissioning include species endemic to the region, such as California poppy, yellowray goldfields, desert saltgrass (*Distichlis spicata*), deerweed (*Acmispon glaber*), desert milkweed (*Asclepias erosa*), Acton encelia (*Encelia actoni*), Prince's plume (*Stanleya pinnata*), Nevada ephedra (*Ephedra nevadensis*), winter fat (*Krascheninnikovia lanata*), and rubber rabbishbrush (*Ericameria nauseosa*).

Recommendation #4: CDFW recommends the County develop a weed management plan for the Project area and implement it during construction and throughout the life of the Project. Soil disturbance, such as mowing or vegetation clearing around the PV solar panels, promote the establishment of non-native weeds. Non-native weeds should be prevented from becoming established during and after construction to control the spread of invasive plants. The Project area should be monitored (via mapping) for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring should be included in this plan. Monitoring the potential spread of invasive weeds onto adjacent lands should also be included.

Recommendation #5: CDFW recommends that any irrigation proposed by the County for the landscape buffers, routine PV solar panel washing, or for the revegetation of decommissioning drain back into the development and not onto natural habitat land as perennial sources of water allow for the introduction of invasive Argentine ants. Irrigation should only be used if an individual plant is stressed and it should be limited to the first year (in the installation phase). Temporary or permanent irrigation should not be installed, because only individual plants under stress should be targeted for watering. Hand watering Is preferred. If a temporary irrigation system must be installed it should not be connected to a water source and should not be on a timer. The water source (water truck) should only be connected to the irrigation system while it is in use. A system left on a timer should never be used as this creates an unnatural hydrologic regime and more robust growth than would normally be supported by the existing site.

Mitigation and Monitoring Reporting Plan

CDFW recommends the County adopt the mitigation measures and recommendations in this letter into the MND. Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments [(Pub. Resources Code, §

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

21081.6; CEQA Guidelines, § 15126.4(a)(2)]. As such, CDFW has provided comments and recommendations to assist the County in developing mitigation measures that are (1) consistent with CEQA Guidelines, section 15126.4; (2) specific; (3) detailed (i.e., responsible party, timing, specific actions, location), and (4) clear for a measure to be fully enforceable and implemented successfully via mitigation, monitoring, and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

The County is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code, section 21081.6(a)(1), CDFW has provided the County with a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation and Monitoring Reporting Plan (MMRP; Attachment 1).

Environmental Data

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database (i.e., California Natural Diversity Database (CNDDB)) which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, sub. (e)) Accordingly, please report any special status species and natural communities detected during Project surveys to the CNDDB. The CNNDB field survey form can be filled out and submitted online (CDFW 2024b). Please visit CDFW online to access the types of information reported to CNDDB. Information on special status native plant populations and sensitive natural communities, the Combined Rapid Assessment and Relevé Form should be completed and submitted to CDFW's Vegetation Classification and Mapping Program (CDFW 2025)

Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

Conclusion

CDFW appreciates the opportunity to comment on the MND to assist the County in identifying and mitigating Project impacts on biological resources. To ensure significant impacts are adequately mitigated to a level less-than-significant, the feasible mitigation measures described above should be incorporated as enforceable conditions in the MND for the Project. CDFW requests an opportunity to review and comment on any

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

response that the County has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines, § 15073(e)].

Questions regarding this letter or further coordination should be directed to Mary Ngo, Senior Environmental Scientist (Specialist), at Mary.Ngo@wildlife.ca.gov or (562) 292-8105 to schedule a meeting with CDFW.

Sincerely,

DocuSigned by:
Heather A. Pert
DF423498814B441...

Heather A. Pert
Environmental Program Manager
South Coast Region

Attachments

Attachment A: Draft Mitigation and Monitoring Plan

ec: California Department of Fish and Wildlife
Baron Barrera, Senior Environmental Scientist (Supervisory)
Felicia Silva, Senior Environmental Scientist (Specialist)
Cindy Hailey, Staff Services Analyst
CEQA Program Coordinator – Sacramento

Office of Planning and Research
State Clearinghouse – State.Clearinghouse@opr.ca.gov

References

[CDFW] California Department of Fish and Wildlife. 2025. Species of Special Concern. Available from: https://wildlife.ca.gov/Conservation/SSC

[CDFW] California Department of Fish and Wildlife. 2024a. Lake and Streambed Alteration Program.

[CDFW] California Department of Fish and Wildlife. 2024b. Submitting Data to the CNDDB.

[CDFW] California Department of Fish and Wildlife. June 2, 2010. Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California Available from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83991&inline

Karban, C. C., Lovich, J. E., Grodsky, S. M., & Munson, S. M. (2024). Predicting the effects of solar energy development on plants and wildlife in the Desert Southwest, United States. *Renewable and Sustainable Energy Reviews*, *205*, 114823.

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Mitigation and Monitoring Reporting Plan	Timing	Responsible Party
MM BIO-1 Nesting Bird Surveys. To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and CFGC, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through August 31) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 300-foot buffer (250-foot for raptors and 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not required during O&M activities. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey. **CDFW recommends that MM BIO-1 is revised to incorporate the underlined language and omit the language in strikethrough:** **MM BIO-1:** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and California Fish and Game Code, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15 (as early as January 1 for some raptors)) (February 1 through August 31) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500 300-foot buffer (250-foot for raptors and 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of the nesting bird survey findings will be provided to the County. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel (and CDFW depending on the species) shall be notified as to the existence of the buffer zone and instructed to avoid		

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County and CDFW. The memorandum shall include graphics and figures as necessary to support the results of the survey.		
MM BIO-2 Swainson's Hawk. If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. **CDFW recommends the addition of the following underlined language to MM BIO-2:**	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

MM BIO-2: If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site. Consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have a take authorization prior to any activity that may result in take of CESA-protected species.		
MM BIO-6 Burrowing Owl Avoidance. A qualified biologist shall conduct surveys following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration. **CDFW recommends that MM BIO-6 is revised to incorporate the underlined language for burrowing owl and omit the language in strikethrough:** **MM-BIO-6:** A qualified biologist shall conduct surveys in accordance with protocols currently accepted by CDFW following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) during the survey season immediately prior to construction and	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

decommissioning to assess the presence of burrowing owl on or adjacent to the site. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNNDB and develop a site-specific plan to avoid impacts on burrowing owl. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have take authorization prior to any activity that may result in take of CESA-protected species. to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration		
MM BIO-9 Crotch's bumble bee. Protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) shall be performed prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:	Prior to finalizing CEQA document; Prior to construction; and, Prior to decommissioning	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

• If “take” or adverse impacts to Crotch’s bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b). • Any floral resource associated with Crotch’s bumble bee (i.e. specific plant species that Crotch’s bumble bee is observed foraging on) that will be removed or damaged by the Project shall be replaced at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved. **CDFW recommends that MM BIO-9 is revised to incorporate the underlined language for Crotch’s bumble bee:** **MM-BIO-9:** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch’s bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) shall be performed during the appropriate flying season prior to construction to determine if Crotch’s bumble bee is present on the Project site. If no Crotch’s bumble bees are detected on the site, no further mitigation will be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.		
Recommendation #1: The implementation of MM BIO-10 does not constitute effective mitigation for the purposes of offsetting Project impacts associated with the loss of nesting and foraging habitat. CDFW recommends the Project proponent consider an alternative construction method instead of the traditional “blade and grade” method, where vegetation is crushed in some areas, but soils and vegetation are otherwise left intact (“drive and crush”). Leaving vegetation crushed with the “drive and crush” method, leaves roots intact and allows vegetation to more successfully regenerate. This alternative construction	Prior to finalizing CEQA document	Lead Agency

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

method can create an opportunity for vegetation to be left between panel rows and elsewhere to provide some habitat for desert-dwelling avian species and ameliorate some habitat effects (Karban et al. 2024).		
Recommendation #2: To offset the loss of vegetation, CDFW recommends the County include landscape buffers for the Project along the northern and eastern boundaries of the Project site. The Project, as currently proposed, only considers buffers along the western and southern boundaries.	Prior to finalizing CEQA document	Lead Agency
Recommendation #3: CDFW recommends the County's proposed planting palette for the landscape buffer and for the revegetation of decommissioning include species endemic to the region, such as California poppy, yellowray goldfields, desert saltgrass (*Distichlis spicata*), deerweed (*Acmispon glaber*), desert milkweed (*Asclepias erosa*), Acton encelia (*Encelia actoni*), Prince's plume (*Stanleya pinnata*), Nevada ephedra (*Ephedra nevadensis*), winter fat (*Krascheninnikovia lanata*), and rubber rabbishbrush (*Ericameria nauseosa*).	Prior to finalizing CEQA document; and, During the life of the Project	Lead Agency; and, Project Proponent
Recommendation #4: CDFW recommends the County develop a weed management plan for the Project area and implement it during construction and throughout the life of the Project. Soil disturbance, such as mowing or vegetation clearing around the PV solar panels, promote the establishment of non-native weeds. Non-native weeds should be prevented from becoming established during and after construction to control the spread of invasive plants. The Project area should be monitored (via mapping) for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring should be included in this plan. Monitoring the potential spread of invasive weeds onto adjacent lands should also be included.	Prior to finalizing CEQA document; During the life of the Project; and, Prior to project decommissioning	Lead Agency; and, Project Proponent
Recommendation #5: CDFW recommends that any irrigation proposed by the County for the landscape buffers, routine PV solar panel washing, or for the revegetation of decommissioning drain back into the development and not onto natural habitat land as perennial sources of water allow for the introduction of invasive Argentine ants. Irrigation should only be used if an individual plant is stressed and it should be limited to the first year (in the installation phase).	Prior to finalizing CEQA document; During the life of the Project; and,	Lead Agency; and, Project Proponent

Docusign Envelope ID: 9CA55D04-7990-415A-A80B-47D53D0EEAA9

Temporary or permanent irrigation should not be installed, because only individual plants under stress should be targeted for watering. Hand watering Is preferred. If a temporary irrigation system must be installed it should not be connected to a water source and should not be on a timer. The water source (water truck) should only be connected to the irrigation system while it is in use. A system left on a timer should never be used as this creates an unnatural hydrologic regime and more robust growth than would normally be supported by the existing site.	Prior to project decommissioning	

Letter 5

California Department of Fish and Wildlife
Heather A. Pert.
Environmental Program Manager
3883 Ruffin Road
San Deigo, CA 92123

Comment 5-1

The California Department of Fish and Wildlife (CDFW) has reviewed the Mitigated Negative Declaration (MND) for the 230th Street Solar Project (Project), which has been proposed by Los Angeles County Department of Regional Planning (Lead Agency; County) on behalf of RPCA Solar 12, LLC (Project proponent).

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

Response 5-1

This comment acknowledges receipt of the MND. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-2

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G.Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 et seq.), CDFW recommends the County obtain appropriate authorization under the Fish and Game Code.

Response 5-2

This comment summarizes the roles and responsibilities of the CDFW. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-3

Project Summary

Project Proponent: RPCA Solar 12, LLC.

Objective: According to the MND, the proposed Project includes construction and operation of ground-mounted photovoltaic (PV) solar panels and a battery energy storage system (BESS) facility that would generate up to 4.99 megawatts (MW) of alternating current. The Project would consist of the following components: PV solar modules, BESS, underground electrical conductors, balance of system equipment, access roads, and fencing. The Project would tie into an existing electrical distribution system (owned by Southern California Edison), which is located southwest of and adjacent to the Project site along 230th Street W.

Site access for the 230th Solar Facility would be provided via the construction of a new driveway connecting to 230th Street W, a public roadway located along the western boundary of the Project site. The driveway entrance would be surfaced with gravel, transitioning to compacted native soil beyond the entrance to minimize soil disturbance while maintaining vehicular functionality.

The Project includes the development of new on-site access roads, which would:

- Encircle the entire solar array to ensure full perimeter accessibility;
- Bisect the site in a west-to-east orientation, providing a direct internal connection from the driveway entrance on 230th Street W to the eastern boundary of the Project site;
- Provide direct access to the BESS facility located within the Project area; and,
- Ensure that no PV solar panel is located more than 175 feet from a fire access road, enhancing emergency response capability.

A 10,000-gallon water tank would also be installed adjacent to the BESS and access gate on the southern side of the Project site. The water tank would have a supply outlet of 2.5 inches in diameter. The supply outlet is to be located 14 to 24 inches above the finished grade and is required to be protected by approved barricades. To mitigate a potential increase in runoff flows, an infiltration retention basin will be built on the Project with an approximate volume of 42,336 cubic feet.

Location: According to the MND, the Project would occupy approximately 31 acres of a 39-acre parcel (Los Angeles County Assessor Parcel Number 3278-025-001). The Project site is generally located at 49560 230th Street W, near the community of Lancaster.

Response 5-3

This comment provides a summary of the Project's objective and location as presented in the IS/MND. As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-4

Biological Setting:

The Project site primarily consists of undeveloped desert habitat located near rural residences and existing solar developments. Vegetation on-site includes cheatgrass grassland (*Bromus tectorum*), inactive agricultural and ruderal land, and rubber rabbitbrush scrub (*Ericameria nauseosa*) that has naturally recolonized since agricultural activities ceased.

Several special-status species have a moderate potential to occur in the vicinity, including Crotch's bumble bee (*Bombus crotchii*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), LeConte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), ferruginous hawk (*Buteo regalis*), greater roadrunner (*Geococcyx californianus*), mountain bluebird (*Sialia currucoides*), prairie falcon (*Falco mexicanus*), short-eared owl (*Asio flammeus*), and western meadowlark (*Sturnella neglecta*). Additionally, several common native and nonnative bird species such as white-crowned sparrow (*Zonotrichia leucophrys*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*) may nest or forage within or near the site.

Two special-status mammal species—the American badger (*Taxidea taxus*), a California Species of Special Concern (SSC), and the desert kit fox (*Vulpes macrotis arsipus*) which is protected by Title 14, section 460 of the California Code of Regulations (furbearing mammals)—have low potential to occur on the Project site.

Response 5-4

This comment provides a summary of the biological setting of the Project Site and the special-status species, common native and nonnative bird species, and special-status mammal species that may have potential to occur on the Project Site. These species are acknowledged within the IS/MND and the associated technical studies (see the Biological Resources Assessment provided in Appendix C-1 of the IS/MND and the Biological Resources Supplemental Memorandum provided in Appendix C-2 of the IS/MND). As this comment does not raise any specific issues with respect to the content and adequacy of the IS/MND, no further response is warranted.

Comment 5-5

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

Comment #1: Impacts to Raptors and Sensitive Species

Issue: The Project may impact raptors and sensitive species protected under CESA or designated as an SSC.

Specific impacts: Several sensitive species have been regularly observed nesting and foraging throughout the Palmdale and Lancaster area. The Project may potentially result in the loss of foraging and nesting habitat for CESA-listed Swainson's hawk, and CESA candidate listed burrowing owl and Crotch's bumble bee. The Project may also impact the following SSCs: loggerhead shrike, LeConte's thrasher, mountain plover, ferruginous hawk, prairie falcon, short-eared owl, and American badger. Project activities may result in a loss of refugia, nest abandonment, and/or decreased feeding frequency. This could result in increased nestling mortality, a significant impact on these imperiled species. The Project may also result in a loss of breeding and/or foraging habitat.

Why impacts would occur: The Project area contains suitable habitat and recent documented occurrences of some of these sensitive species. Project activities include vegetation and tree removal, grading, and construction. Project activities are likely to result in elevated levels of noise, human activity, dust, ground vibrations, and vegetation disturbance. These disturbances and stressors occurring near potential nests could cause individuals to abandon their nests, resulting in the loss of fertile eggs or nestlings. The Mitigation Measures proposed in the MND (i.e., MM BIO-1, MM BIO-2, MM BIO-6, MM BIO-8, and MM BIO-9) may not (1) provide a sufficiently large buffer to avoid take, (2) commit adequate mitigation for the Project (particularly if take occurs), (3) adopt specific performance standards the mitigation will achieve, and/or (4) identify the type(s) of potential action(s) that can feasibly achieve the performance standard(s) that will be considered, analyzed, and potentially incorporated in the mitigation measure (CEQA Guidelines, § 15126.4).

Evidence impacts would be significant: CDFW considers adverse impacts to a species protected by CESA, absent appropriate mitigation, to be significant under CEQA. Under CESA, take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 86, 2062, 2067, 2068, 2080, 2085; Cal. Code Regs., tit. 14, § 786.9).

CDFW considers impacts to CESA-listed species a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. In addition, nests of all native bird species are protected under State laws and regulations, including Fish and Game Code, sections 3503 and 3503.5.

An SSC is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;
- is listed as under the Endangered Species Act, but not CESA-, threatened, or endangered; meets the State definition of threatened or endangered but has not formally been listed;

- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify the species for State threatened or endangered status; and/or,
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for CESA threatened or endangered status (CDFW 2025).

CEQA provides protection not only for CESA-listed species, but for any species including but not limited to SSC's which can be shown to meet the criteria for State listing. These SSC's meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380). Therefore, take of SSC's could require a mandatory finding of significance (CEQA Guidelines, § 15065). Inadequate avoidance and mitigation measures could result in continual substantial adverse direct and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species by CDFW.

Recommended Potentially Feasible Mitigation Measure(s):

Swainson's Hawk

CDFW released guidance for Swainson's hawk entitled Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (2010). CDFW recommends conducting focused surveys for Swainson's hawk following the 2010 guidance and disclosing the results in the Project's environmental document.

CDFW recommends the addition of the following underlined language to MM BIO-2:

MM BIO-2: <u>If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site. Consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.). The project proponent shall have a take authorization prior to any activity that may result in take of CESA-protected species.</u>

Response 5-5

This comment states that the Project may impact raptors and sensitive species protected under the California Endangered Species Act (CESA) (e.g., CESA-listed Swainson's hawk and CESA candidate listed burrowing owl and Crotch's bumble bee) or designated as a Species of Special Concern (SSC) (e.g., loggerhead shrike, LeConte's thrasher, mountain plover, ferruginous hawk, prairie falcon, short-eared owl, and American badger). The IS/MND and associated technical studies acknowledge that the species have a potential to occur within the vicinity of the Project Site based on the CDFW California Natural Diversity Database (CNDDB) and the USFWS Information for Planning and Consultation (IPaC) searches. Specifically regarding Swainson's hawk (SWHA), as described on page 34 of the IS/MND, a SWHA survey was performed by qualified Rincon biologists on April 15, 2025. No SWHA were observed within the 0.5-mile buffer of the Project Site during the survey, and there is only one CNDDB documented occurrence of

SWHA within 5 miles of the Project Site, dated 2020. The Project would implement a nesting bird survey (see MM BIO-1) during construction and decommissioning and MM BIO-2, which requires avoidance buffers around any active SWHA nests, should the pre-construction nesting bird survey detect active SWHA nests. The Project also would implement MM BIO-3 to ensure that all persons working on the Project (during construction, O&M, and decommissioning) received worker environmental awareness training. MM BIO-2 already includes additional monitoring should active SWHA nests be detected, as well as an avoidance buffer. However, MM BIO-2 is revised as follows to address CDFW consultation in the event avoidance buffers cannot be maintained:

MM BIO-2 **Swainson's Hawk.** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with CDFW prior to working within the area(s) to determine next steps.

Comment 5-6

Burrowing Owl

According to the MND, "…Rincon biologists performed a protocol-level burrowing owl (BUOW) survey on April 3, 2025 according to the CDFW 2012 *Staff Report on Burrowing Owl Mitigation.* No burrows of suitable size (4 inches or greater) were observed during the survey, and no BUOW were detected. Nevertheless, even with the low potential for BUOW to occur on the Project Site, the Project would implement pre- construction surveys and avoidance measures specific to BUOW" (p. 34).

CDFW recommends that MM BIO-6 is revised to incorporate the underlined language for burrowing owl and omit the language in strikethrough:

MM-BIO-6: A qualified biologist shall conduct surveys in accordance with protocols currently accepted by CDFW ~~following the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012)~~ during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNNDB and develop a site-specific plan to avoid impacts on burrowing owl. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and~~/or~~ consultation shall occur with CDFW to obtain appropriate authorization for take of species protected under CESA (pursuant to Fish & G. Code, § 2080 et seq.).The project proponent shall have take authorization prior to any activity that may result in take of CESA-protected species. ~~to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration~~

Response 5-6

The comment recommends revisions to MM BIO-6 regarding burrowing owl surveys. It should be noted that MM BIO-6 utilizes the most current guidelines regarding burrowing owl surveys, including the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines and the CDFW Staff Report on Burrowing Owl Mitigation (2012). As no more recent guidelines have been released, the County will continue to use the existing guidelines within MM BIO-6. Additionally, MM BIO-6 already states that if maintaining the avoidance buffers is infeasible, the CDFW shall be notified and consultation shall determine whether an Incidental Take Permit (ITP) is warranted. Therefore, MM BIO-6 is revised as follows:

MM BIO-6 **Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow~~ing~~ the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW ~~during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site~~.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, the County shall report the observation to CDFW through an entry in CNDDB. If maintaining the avoidance buffers is infeasible, CDFW shall be

notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.

Comment 5-7

Crotch's Bumble Bee

According to the MND, "A protocol survey pass was performed on April 21, 2025, by two qualified Rincon biologists, each possessing a Memorandum of Understanding to perform surveys for Crotch's bumble bee. No Crotch's bumble bees were observed.
Accordingly, there is low potential for Crotch's bumble bee to occur on the Project Site. Nevertheless, the County would implement MM BIO-9 to minimize potential impacts to Crotch's bumble bee" (p. 35).

CDFW recommends that MM BIO-9 is revised to incorporate the underlined language for Crotch's bumble bee and omit the language in strikethrough:

MM-BIO-9: A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project site. If no Crotch's bumble bees are detected on the site, no further mitigation will be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

Response 5-7

The comment recommends edits to MM BIO-9 regarding Crotch's bumble bee. MM BIO-9 already requires appropriate survey efforts for Crotch's bumble bee. However, MM BIO-9 is revised as follows to make clarifying edits, inclusive of the revision provided in Response 1-2:

MM BIO-9 **Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform ~~P~~protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).
- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any ITP application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

Comment 5-8

Nesting Birds

A temporary halt of Project activities within buffers during nesting season does not constitute effective mitigation for the purposes of offsetting Project impacts associated with habitat and tree loss. Effective mitigation is necessary to compensate for the long-term and temporal loss of ecological function, including permanent removal of nesting and foraging habitat. To ensure habitat and tree losses are sufficiently offset, mitigation should be designed to replace or enhance habitat of equal or greater ecological value, based on acreage of impact, tree loss, quality and composition of vegetation, and conservation status of the wildlife species affected.

CDFW recommends that MM BIO-1 is revised to incorporate the underlined language and omit the language in strikethrough:

MM BIO-1: To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and California Fish and Game Code, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15 (as early as January 1 for some raptors)) ~~(February 1 through August 31)~~ to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500 ~~300~~-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of the nesting bird survey findings will be provided to the County.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel (and CDFW depending on the species) shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County and CDFW. The memorandum shall include graphics and figures as necessary to support the results of the survey.

Response 5-8

The comment recommends revisions to MM BIO-1 related to nesting birds. CDFW notification and consultation already is required in the other mitigation measures related to impacts on special-status species. MM BIO-1 is revised as follows to address the length of potential nesting season and to ensure appropriate survey buffers. However, there is little evidence of nesting in January, such that nesting bird surveys conducted during that time would not provide relevant data for determining potential nesting activities and establishing appropriate buffers. See Response 5-9, below, regarding nesting and foraging habitat.

MM BIO-1 **Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and CFGC, activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through ~~August 31~~ September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a ~~300~~ 500-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require

subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not required during O&M activities.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.

Comment 5-9

Comment #2: MM BIO-10 Vegetation and Revegetation

Issue: The Project will have impacts to vegetation communities, including cheat grass grassland, rubber rabbitbrush scrub, and small patches of native wildflowers such as California poppy (*Eschscholzia californica*) and yellowray goldfields (*Lasthenia glabrata*), which provide important nesting and foraging habitat for wildlife and avian species.

Specific impacts: Project activities such as the vegetation clearing and grading may eliminate or reduce habitat used by wildlife for nesting, foraging and cover, especially for species that rely on native vegetation structure and small mammal burrows observed throughout the site. The removal and degradation of these plant communities may cause long-term loss of ecological function across the site.

Why impacts would occur: According to the MND, the Project likely supports local movement patterns and provides food and cover resources for common wildlife species. In addition, small mammal burrows have been observed throughout the Project site suggesting active use by ground-dwelling species.

Evidence impacts would be significant: The traditional method of solar construction is "blade and grade" which involves blading vegetation and grading resulting in compaction of the soil. According to Karban et al. (2024), construction practices often include the removal of all native vegetation with "blade and grade", eliminating breeding, foraging, shelter, for ground-dwelling species and eliminates migratory stop-over habitats of avian species. Per CEQA Guidelines, section 15065 (a), a project may have a significant effect on biological resources if the project substantially reduces the habitat of a fish or wildlife species; threatens to eliminate a plant community; or has the potential to restrict the range of endangered, rare, or threatened species.

Recommended Potentially Feasible Mitigation Measure(s):

Recommendation #1: The implementation of MM BIO-10 does not constitute effective mitigation for the purposes of offsetting Project impacts associated with the loss of nesting and foraging habitat. CDFW recommends the Project proponent consider an alternative construction method instead of the traditional "blade and grade" method, where vegetation is crushed in some areas, but soils and vegetation are otherwise left intact ("drive and crush"). Leaving vegetation crushed with the "drive and crush" method, leaves roots intact and allows vegetation to more successfully regenerate. This alternative construction method can create an opportunity for vegetation to be left between panel rows and elsewhere to provide some habitat for desert-dwelling avian species and ameliorate some habitat effects (Karban et al. 2024).

Response 5-9

The comment includes recommendations regarding vegetation and revegetation to minimize long-term loss of ecological function across the Project Site. The comment recommends consideration of alternative construction methods instead of the traditional "blade and grade" method. Alternative construction methods, such as "drive and crush" will be utilized as practicable. The County's Renewable Energy Ordinance also prohibits the removal of existing vegetation root systems, except where necessary for construction of access roads, substations and certain other components. Further, as provided in the IS/MND, the Project would not have a cumulatively considerable effect on biological resources or habitat for special-status species. The Project Site lacks high-value habitat, likely due to past agricultural uses that included regular disking, which resulted in the degradation of natural habitats and disturbance of native soils. Thus, the Project Site overall provides low quality habitat, and development of the Project Site would not cause a significant loss of high-value foraging, sheltering, or nesting habitat. The surrounding undeveloped parcels that have not been disturbed by agricultural uses are of much higher value to special-status species. In addition to being of poor habitat value, the small footprint of the Project means that the relative scale of potential Project impacts is limited and contributes little to any potential cumulative effects in the larger vicinity of the Project, as it does not reduce movement corridors or significant amounts of potential habitat for special-status plant and wildlife species. In addition, the habitat on the Project Site would not be removed completely, as annual grassland will be retained under the arrays. This will provide foraging opportunities for multiple species. Moreover, the Project was designed to allow for movement around and through the arrays by requiring a gap at the bottom of the fence, therefore encouraging movement of wildlife species through and in the vicinity of the Project Site. The land that the Project is sited on has not been designated as critical habitat by USFWS, nor has it been set aside for conservation by any other entity.

Comment 5-10

Recommendation #2: To offset the loss of vegetation, CDFW recommends the County include landscape buffers for the Project along the northern and eastern boundaries of the Project site. The Project, as currently proposed, only considers buffers along the western and southern boundaries.

Response 5-10

The comment recommends that landscape buffers be provided along the northern and eastern boundaries. The Project complies with the County's Renewable Energy Ordinance requirements for landscape buffers. Further, as described in Response 5-9, the Project Site overall provides low quality habitat, and development of the Project Site would not cause a significant loss of high-value foraging, sheltering, or nesting habitat. As noted on page 6 of the IS/MND, pursuant to Section 22.140.510.E.3.c.viii of the County's Renewable Energy Ordinance, a landscaped area at least 10 feet in depth shall be maintained between perimeter fencing and any public right-of-way or adjacent property with an existing residential or agricultural use. The Project complies with this requirement and proposes a 10-foot landscape buffer between the fence and the access road along the western and southern boundaries of the Project Site. Therefore, no additional landscape buffer is required. See also Response 5-9 regarding impacts to habitat.

Comment 5-11

Recommendation #3: CDFW recommends the County's proposed planting palette for the landscape buffer and for the revegetation of decommissioning include species endemic to the region, such as California poppy, yellowray goldfields, desert saltgrass (*Distichlis spicata*), deerweed (*Acmispon glaber*), desert milkweed (*Asclepias erosa*), Acton encelia (*Encelia actoni*), Prince's plume (*Stanleya pinnata*), Nevada ephedra (*Ephedra nevadensis*), winter fat (*Krascheninnikovia lanata*), and rubber rabbishbrush (*Ericameria nauseosa*).

Response 5-11

The comment recommends the County's planting palette include species endemic to the region. As the Project's landscape buffer is intended to screen the Project Site from the motorists and the nearby residents, the planting palette would be required to include vegetation that would be tall enough to provide adequate screening. The species included in the comment would not be feasible to provide adequate screening. As stated in MM BIO-10, the seed mix shall be provided to the County for review prior to application, and the County's Renewable Energy Ordinance requires the use of non-invasive, drought tolerant vegetation for landscaping.

Comment 5-12

Recommendation #4: CDFW recommends the County develop a weed management plan for the Project area and implement it during construction and throughout the life of the Project. Soil disturbance, such as mowing or vegetation clearing around the PV solar panels, promote the establishment of non-native weeds. Non-native weeds should be prevented from becoming established during and after construction to control the spread of invasive plants. The Project area should be monitored (via mapping) for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring should be included in this

plan. Monitoring the potential spread of invasive weeds onto adjacent lands should also be included.

Response 5-12

The comment recommends a weed management plan for the Project area be implemented during construction and operation of the Project. The Project Proponent would implement MM BIO-10 to minimize impacts to soil and native vegetation and would comply with the County's Renewable Energy Ordinance, which includes requirements to minimize soil and vegetation disturbance and erosion. Additionally, as part of the Project's Decommissioning Plan, the Project Proponent would commit to restoration of any disturbed soils and vegetation of the Project Site to pre-construction conditions. Erosion and sediment control, re-seeding, soil stabilization, weed control, and fertilization will be provided by the Project Proponent as needed until the Project Site is stabilized and approved to be completed by the County. The Project Proponent would monitor the vegetation conditions for the Project Site, but is unable to do so for areas not within their ownership and control.

Comment 5-13

Recommendation #5: CDFW recommends that any irrigation proposed by the County for the landscape buffers, routine PV solar panel washing, or for the revegetation of decommissioning drain back into the development and not onto natural habitat land as perennial sources of water allow for the introduction of invasive Argentine ants. Irrigation should only be used if an individual plant is stressed and it should be limited to the first year (in the installation phase). Temporary or permanent irrigation should not be installed, because only individual plants under stress should be targeted for watering. Hand watering Is preferred. If a temporary irrigation system must be installed it should not be connected to a water source and should not be on a timer. The water source (water truck) should only be connected to the irrigation system while it is in use. A system left on a timer should never be used as this creates an unnatural hydrologic regime and more robust growth than would normally be supported by the existing site.

Response 5-13

The comment recommends that irrigation for the landscape buffers, routine PV solar panel washing, or revegetation drain back into the Project Site and not onto natural habitat land. As stated on page 71 of the IS/MND and in the Project's Drainage Report (Appendix I of the IS/MND), the Project would construct retention basins to attenuate assumed increases to peak flow and volume. The basins would be located in the center of the Project Site. As the volume of the proposed retention basin is greater than the proposed change in peak flow rates, installation of the retention basin would attenuate peak runoff flows. Additionally, no permanent irrigation would be installed for the Project. Irrigation would be temporary with minimal water use to establish the buffer, and no long-term irrigation would be utilized.

Comment 5-14

Mitigation and Monitoring Reporting Plan

CDFW recommends the County adopt the mitigation measures and recommendations in this letter into the MND. Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments [(Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15126.4(a)(2)]. As such, CDFW has provided comments and recommendations to assist the County in developing mitigation measures that are (1) consistent with CEQA Guidelines, section 15126.4; (2) specific; (3) detailed (i.e., responsible party, timing, specific actions, location), and (4) clear for a measure to be fully enforceable and implemented successfully via mitigation, monitoring, and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

The County is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code, section 21081.6(a)(1), CDFW has provided the County with a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation and Monitoring Reporting Plan (MMRP; Attachment 1).

Response 5-14

The comment recommends the County adopt the revisions and recommendations into the MND and has provided revisions in Attachment 1 of the comment letter. As detailed in Responses 5-1 through 5-13, clarifications to the mitigation measures have been provided accordingly. No further response is warranted.

Comment 5-15

Environmental Data

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database (i.e., California Natural Diversity Database (CNDDB)) which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, sub. (e)) Accordingly, please report any special status species and natural communities detected during Project surveys to the CNDDB. The CNNDB field survey form can be filled out and submitted online (CDFW 2024b). Please visit CDFW online to access the types of information reported to CNDDB. Information on special status native plant populations and sensitive natural communities, the Combined Rapid Assessment and Relevé Form should be completed and submitted to CDFW's Vegetation Classification and Mapping Program (CDFW 2025)

Response 5-15

The comment requests that any special status species and natural communities detected during Project surveys be reported to the CNDDB at the link provided. These forms will be completed and submitted upon completion of the entitlement process with the County.

Comment 5-16

Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

Response 5-16

The comment states that the payment of the filing fees is required in order for the underlying Project approval to be operative, vested, and final. This comment is noted, and the fees will be paid upon Project approval and along with the Notice of Determination.

Comment 5-17

Conclusion

CDFW appreciates the opportunity to comment on the MND to assist the County in identifying and mitigating Project impacts on biological resources. To ensure significant impacts are adequately mitigated to a level less-than-significant, the feasible mitigation measures described above should be incorporated as enforceable conditions in the MND for the Project. CDFW requests an opportunity to review and comment on any response that the County has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines, § 15073(e)].

Questions regarding this letter or further coordination should be directed to Mary Ngo, Senior Environmental Scientist (Specialist), at Mary.Ngo@wildlife.ca.gov or (562) 292-8105 to schedule a meeting with CDFW.

Response 5-17

This comment provides a conclusion to the comment letter and contact information for further information, as necessary. No further response is warranted.

4.0 CORRECTIONS AND ADDITIONS

This Final IS/MND also includes changes that were made to clarify, correct, or supplement information provided in the Public Review Draft IS/MND. These changes and additions were made to respond to comments received during the public review period. The changes provided do not add significant new information or require substantial revisions that would require recirculation of the IS/MND. Changes to the IS/MND are indicated below under the respective EIR section heading, page number, and paragraph. Paragraph reference is to the first full paragraph on the page. Deletions are shown with ~~strikethrough~~ and additions are shown with double underline.

1. Page 37 of the IS/MND, MM BIO-1 is revised as follows:

MM BIO-1 **Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through ~~August 31~~ September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a ~~300~~ 500-foot buffer (~~250-foot for raptors and~~ 0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not required during Operation & Maintenance activities.

If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one

hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist.

A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.

2. Page 38 of the IS/MND, MM BIO-2 is revised as follows:

MM BIO-2 **Swainson's Hawk (SWHA).** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. If construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.

3. Page 39 of the IS/MND, MM BIO-6 is revised as follows:

MM BIO-6 **Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow~~ing~~ the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW ~~during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site~~.

Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during

construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.

4. Page 39 of the IS/ND, MM BIO-7 is revised as follows:

MM BIO-7 **Desert Kit Fox.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy~~CDFW for written approval~~. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.

5. Page 40 of the IS/MND, MM BIO-8 is revised as follows:

MM BIO-8 **American Badger.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be

required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy~~CDFW for approval~~. The Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).

6. Page 40 of the IS/MND, MM BIO-9 is revised as follows:

MM BIO-9 **Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform ~~P~~protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ~~shall be performed~~ during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities.

If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented:

- If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b).
- Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be

maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.

7. Page 40 of the IS/MND, MM BIO-10 is revised as follows:

MM BIO-10 Vegetation and Revegetation. To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.

8. Page 45 of the IS/MND, MM CUL-2 is revised as follows:

MM CUL-2 Unanticipated Discovery of Cultural Resources. In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the ~~The County shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of~~ the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
PROJECT NO. PRJ2023-002405 / CUP NO. RPPL202300513 / ENV NO. RPPL2023005138

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
1	**MM AQ-1: Minimize Exposure to Potential Valley Fever-Containing Dust.** Prior to ground disturbance activities, the Applicant must prepare a Dust Control Plan for the Antelope Valley Air Quality Management District (AVAQMD) review, including a Valley Fever Management Plan (VFMP) and training program, to be implemented during construction to address potential risks from Coccidioides immitis by minimizing the potential for unsafe dust exposure during construction. At a minimum, the following dust control measures shall be implemented as part of the VFMP as well as specific measures in Dust Control Plan during project construction: • An educational Valley Fever Training Handout shall be provided to all onsite construction personnel. The handout shall provide information including, but not limited to, the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever. • Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction. • Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.	A. Submit a Dust Control Plan to AVAQMD that addresses grading and ground disturbance, construction scheduling, soil stockpiles, water application, soil binding, monitoring, valley fever, and high wind. Provide the County with approved copy of the Dust Control Plan. B. Comply with Dust control Plan and measures while monitoring and keeping records of this mitigation measure. Present records to AVAQMD and the County upon request. C. Provide Valley Fever information and training on personal protective equipment to staff and onsite construction personnel, and	A. Prior to ground disturbance activities. Ground disturbance refers to any activities that may include clearing vegetation, grading, excavation, trenching, and drilling within the Project Site. B. During construction C&D. During construction	Permittee / Construction Manager	County of Los Angeles Department of Regional Planning (LACDRP) / AVAQMD

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	• Provide and/or require, if determined to be needed based on the applicable JHA, National Institute for Occupational Safety and Health-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following completion of medical evaluations, fit-testing, and proper training on use of respirators. • Specific measures addressed in the approved Dust Control Plan that may be related to maintenance and cleaning of equipment, vehicles, construction areas, parking and staging areas, and unpaved access roads.	present records to AVAQMD and County upon request. D. Implement a Valley Fever Management Plan.			
2	**MM BIO-1: Nesting Bird Surveys.** To avoid disturbance of nesting and special-status birds, including raptorial species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), activities related to the Project construction and decommissioning, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through September 15) to the extent feasible. If construction or decommissioning must begin within the breeding season, then a nesting bird survey shall be conducted no more than seven (7) working days prior to initiation of ground disturbance and vegetation-removal activities. The nesting bird survey shall be conducted within the Project area, plus a 500-foot buffer (0.50-mile for Swainson's hawk), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California desert communities. Construction and decommissioning phasing and/or a lapse in work activity during the nesting season may require subsequent nesting surveys by the biologist. A report of nesting bird survey findings will be provided to the County. Nesting bird surveys shall not be required during Operation & Maintenance activities.	A. Schedule vegetation removal outside of bird breeding season, if feasible B. Conduct a pre-construction nesting bird survey during the breeding season C. Retain a qualified biologist. D. Prepare report of nesting bird survey findings	A. Prior to vegetation removal, ground disturbance, construction, or demolition activities B, C, & D. Prior to the commencement of vegetation removal, ground disturbance, construction, demolition activities or site mobilization activities.	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary that provides adequate marking but does not disturb the nest itself. All construction personnel shall be notified as to the existence of the buffer zone and instructed to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist. The active nests shall be monitored for a minimum of one hour for passerines and three hours for raptors to determine a baseline of behavior, and shall be avoided by a sufficient buffer, to be determined by the qualified biologist, based on species and Project activities in the vicinity of the nest. After the initial baseline monitoring event, the nest shall be monitored once weekly to determine the stage of the nest. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. A memorandum shall be prepared at the conclusion of surveys to be submitted to Los Angeles County. The memorandum shall include graphics and figures as necessary to support the results of the survey.				
3	**MM BIO-2: Swainson's Hawk (SWHA).** If active Swainson's hawk nests are detected within the 0.5 mile buffer, they shall be monitored for a minimum of three hours to determine a baseline of behavior and shall be avoided by a minimum 0.25-mile buffer. After this initial baseline monitoring event, the nest shall be monitored once weekly, including at the initiation of construction activity, to	A. Conduct initial baseline monitoring and recording the event of Swainson's hawk nests and provide the log to the County upon request. B. Further monitoring and recording of the	A. Prior to ground disturbance and construction activities. B. Prior and during construction if active SWHA	Permittee	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	determine the stage of the nest. The nest shall be monitored for at least two hours each week between 7:00 a.m. and 10:00 a.m., and notes on adult behaviors, presumed stage and number of young, and any other breeding behaviors (e.g., copulation, prey deliveries) shall be kept in a field notebook or digital field data collection application. It construction activity is determined to be disturbing the birds, the monitor may increase the buffer width as necessary to alleviate the disturbance. The buffer shall remain in place until the young have fledged or the nest is inactive, to be determined by the qualified biologist. If maintaining appropriate avoidance buffers is infeasible, the Lead Agency/Project proponent shall coordinate with California Department of Fish and Wildlife (CDFW) prior to working within the area(s) to determine next steps.	SWHA nest shall continue as required by this mitigation measure. C. If SWHA nests are detected prior to or during construction, provide notes and records of nest monitoring upon request of the County.	nests are detected D. Prior and during construction		
4	**MM BIO-3: Worker Environmental Awareness Training**. A qualified biologist shall conduct a worker environmental awareness training (WEAT) program for all persons working on the Project prior to the onset of construction for construction, operation and maintenance, and decommissioning activities. A discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered shall be included in the training. Special-status species, including legal protection, penalties for violations, and Project specific protective measures shall also be discussed. Contact information for the qualified biologist and other useful wildlife-related contacts (e.g., CDFW, venomous snake humane relocation services, etc.) shall be included in the WEAT. Interpretation shall be provided for non- English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the training shall be maintained at the worksite with the Project supervisor, and a handout containing this information shall be distributed for workers to carry on-site. Upon completion of the program, employees shall sign an attendance log stating they attended the program and understand all protective	A. Submit WEAT program to LACDRP upon request. B. Conduct an environmental education program for sensitive biological species that may be in the area C. Maintain copies of the training materials and handouts on-site.	A. Prior to the start of construction B & C. Prior to the start of construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	measures. The WEAT shall be sent to the County for review prior to implementation.				
5	**MM BIO-4: Trash Receptacles.** All trash and waste items generated by construction, operation and maintenance and decommissioning or crew activities shall be properly contained in a covered and locked trash receptacle and/or removed from the Project Site daily. All containers shall be wildlife-proof. This includes biodegradable items, such as apple cores and banana peels, that attract predators such as raccoons and American crows that could prey upon sensitive wildlife species.	Contain and remove trash and waste items generated by construction or crew activities	During construction, operation and maintenance, and decommissioning activities	Permittee/ Construction Manager	LACDRP
6	**MM BIO-5: Common and Special-Status Wildlife Awareness.** All Project personnel shall visually check for animals in any pipes, culverts, or other open-ended materials and equipment stored on-site for one or more overnight periods prior to moving, burying, or capping to ensure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during constructional phases of the Project (construction, O&M, and decommissioning), all excavated holes, ditches, or trenches greater than six (6) inches deep shall be covered at the end of each workday by suitable materials that cannot be displaced or escape ramps shall be placed in excavations. After opening and before filling, such holes, ditches, and trenches shall be thoroughly inspected for trapped animals. To prevent wildlife entrapment during construction, BMPs (e.g., straw wattles, etc.) shall not contain monofilament netting. All security fencing installed around the Project Site shall meet the standards set forth in Section 20.140.510(E)(3)(c) of the County Code, including the requirement that perimeter fencing shall incorporate small animal permeable design. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that pass under the fence. Larger species will be able to move freely in all directions around the fence, and to prevent bat and raptor entrapment, no barbed wire	Visually check for animals in any materials and equipment stored on-site for one or more overnight periods; install security fencing per County Code standards	During construction activities, operation and maintenance , and decommissioning activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	shall be installed around the top of the fence. Fences shall be monitored quarterly to ensure that any damage or vandalism is quickly repaired.				
7	**MM BIO-6: Burrowing Owl Avoidance.** A qualified biologist shall conduct surveys during the survey season immediately prior to construction and decommissioning to assess the presence of burrowing owl on or adjacent to the site. The surveys shall follow the California Burrowing Owl Consortium's (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012) or, as applicable to the 2026 survey season and/or subsequent seasons, the latest guidelines acceptable to CDFW. Should burrowing owl individuals or sign at burrows (e.g., whitewash, feathers, pellets, etc.) be detected on the site at any time during construction or decommissioning, including during any pre-construction surveys, work shall stop within 500 meters of the individual or burrow during the breeding season (February 1 – August 31), and within 50 meters of the individual or burrow during the non-breeding season (September 1 – January 31). If burrowing owl or their signs are observed, it shall be reported to the County biologist.. If maintaining the avoidance buffers is infeasible, CDFW shall be notified to determine next steps, which may include additional surveys to determine baseline behavior of the individual and whether nesting is occurring on the site, and/or consultation to determine whether an Incidental Take Permit for burrowing owl is warranted for the Project duration.	A. Conduct burrowing owl surveys B. Stop work within listed buffers if burrowing owl individuals or sign is detected C. Report to County biologist of detection and to determine next steps	A. During survey season immediately prior to construction activities B & C. When burrowing owl individuals or sign are detected during construction or decommissioning.	Permittee/ Construction Manager	LACDRP, CDFW
8	**MM BIO-7: Desert Kit Fox.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential desert kit fox burrows. If no suitable burrows are detected, or no desert kit foxes are detected during remote camera monitoring, no further mitigation would be	A. Conduct desert kit fox surveys B. Prepare Desert Kit Fox Avoidance Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	required. If occupied desert kit fox dens are detected during the pre-construction survey, a Desert Kit Fox Avoidance Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The Plan shall include details on the procedures to collapse or block unoccupied dens which shall be developed in consultation with CDFW. Suitably sized dens (6 inches or greater in size) shall be avoided by 200 feet during the desert kit fox pupping season (January 1 – August 31) and 100 feet outside of the pupping season (September 1 – December 31), where feasible. If avoidance is infeasible, camera monitoring shall occur for 3 nights. If no desert kit foxes are detected during the camera monitoring period, the den shall be collapsed according to the Desert Kit Fox Avoidance Plan. If kit foxes are detected during the camera monitoring period, the dens shall be avoided by a 200-foot buffer during the pupping season and a 100-foot buffer outside of the pupping season until the adults and young have left the burrow, as evidenced by weekly biological monitoring to determine if sign is present at the burrow, and camera monitoring for 2 nights weekly to determine occupancy. Avoidance buffers shall be determined in consultation with CDFW, and variances may be allowed with approval from CDFW.		B. When occupied desert kit fox dens are detected during survey.		
9	**MM BIO-8: American Badger.** During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction, a survey shall be performed by a qualified biologist to determine the presence of potential American badger burrows. If no suitable burrows are detected, or no American badgers are detected during remote camera monitoring, no further mitigation would be required. If an active American badger den is detected in or within 100 feet of the work area (where accessible) during the preconstruction survey, the den shall be protected with a no disturbance buffer, as determined by a qualified biologist, based on the location of the den and construction activities in the vicinity of the den. If an active den cannot be avoided, a Badger Eviction Plan shall be prepared and submitted to County biologist, and if required by the County, notify CDFW and provide a copy. The	A. Conduct American badger surveys B. If determined that an active den cannot be avoided, prepare American Badger Eviction Plan and submit to County biologist	A. During protocol-level burrowing owl surveys and within 48 hours prior to the onset of construction B. Prior to construction	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	Plan shall describe eviction of American badgers and may include camera station monitoring of burrows to ensure badgers are not inside, and timing of eviction to occur outside of the season that young could be present (March 1 – August 31).				
10	**MM BIO-9: Crotch's bumble bee.** A qualified biologist, who possesses a Memorandum of Understanding to perform surveys for Crotch's bumble bee, shall perform protocol surveys following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) during the appropriate flying season prior to construction to determine if Crotch's bumble bee is present on the Project Site. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. Survey results, including negative findings, shall be submitted to CDFW prior to implementing ground-disturbing activities. If this species is detected foraging within 100 feet of the Project Site (where accessible), nesting surveys shall be conducted to identify active colonies. If an active nest is observed on the Project Site, the nest shall be avoided by a 50-foot buffer. The nest shall be monitored daily by the qualified biologist (for at least 2 hours between 7:00 am and 11:00 am) and the following shall be implemented: • If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project construction activities or over the life of the Project, the Project proponent shall consult with CDFW regarding the potential need for take authorization pursuant to Fish and Game Code Section 2081 subdivision (b). • Any floral resource associated with Crotch's bumble bee (i.e. specific plant species that Crotch's bumble bee is observed foraging on, which shall be included in the survey) that will be removed or damaged by the Project shall be replaced on-site, off-site, or	A. Conduct protocol surveys B. Conduct nesting surveys if this species is detected foraging within 100 feet of the project site. C. Consult with CDFW for take authorization D. If floral resource will be removed or damaged, replace floral resource at a 1:1 ratio or as otherwise determined during any ITP application process. E. If any floral resource is found at the site, replant and manage the floral resources.	A, B & C. Prior to construction. C. Following completion of construction or as indicated by ITP. D. During operation and maintenance	Permittee/ Construction Manager	LACDRP, CDFW

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	mitigated through the purchase of credits from a CDFW-approved mitigation bank with documented occurrence of Crotch's bumble bee, at a 1:1 ratio or as otherwise determined during any Incidental Take Permit (ITP) application process. Floral resources mitigated through on-site or off-site replacement shall be replaced as close to their original location as is feasible after the Project is constructed. These floral resources shall be maintained during the life of the Project and shall be replanted and managed as needed to ensure the habitat is preserved.				
11	**MM BIO-10: Vegetation and Revegetation.** To the extent practicable, construction activities shall be performed during the dry season to minimize impacts to soil and native vegetation. Where feasible, rubber-tired vehicles shall be used during construction and grading of Project areas shall be limited the minimum necessary to meet Project objectives. Application of seed shall be limited to that required to meet Project objectives and seed mixes shall be provided to the County biologist for review prior to application.	A. Use rubber-tired vehicles, where feasible B. Provide County with seed mixes	A. During construction activities B. Prior to application of seed mixes	Permittee/ Construction Manager	LACDRP
12	**MM BIO-11: Panel Positioning.** To minimize "lake effect" related to adverse impacts to bird species, the panels shall be positioned overnight where they last tracked the sun or pre-positioned toward the east to capture sunrise (i.e., panels shall be in a close to vertical position) and provide documentation to the County upon request.	A. Position panels (overnight) in a close to vertical position and provide documentation to the County upon request.	During operation	Permittee/ Construction Manager	LACDRP
13	**MM CUL-1: Worker Environmental Awareness Program**. Prior to the start of ground disturbance, the Permittee shall hire a qualified archaeologist ("Project Archaeologist") to provide the construction crew with on-site training on the proper procedures to follow if cultural resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what such artifacts	A. Hire a qualified archaeologist to provide the WEAP for anticipated discovery of cultural resources B. Provide training and information to all individuals working on site	A & B. Prior to the start of ground disturbance activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	may look like when partially buried or wholly buried and then freshly exposed, a discussion of what prehistoric and historic-period archaeological deposits look like at the surface and when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and shall be provided to all individuals working on site.				
14	**MM CUL-2: Unanticipated Discovery of Cultural Resources.** In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 100 feet of the find shall halt and the Project Archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the Project Archaeologist to be prehistoric, a Native American Monitor(s) shall also be contacted to participate in the evaluation of the resource pursuant to MM TCR-5. If the Project Archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via Project redesign, the Project Archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the Project Archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. If archaeological resources are found and impacts cannot be avoided, the treatment plan and archaeological testing document shall be submitted to the County and the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).	A. Retain a Native American Monitor(s). See MM TCR-1 B. Contact Project Archaeologist should archaeological resources be discovered C. Notify Native American Monitor(s) if the resource is determined to be prehistoric D. Prepare a data recovery plan if archaeological resources are found and impacts cannot be avoided E. Submit documentation to the County and regional repository	A. Prior to construction B, C, D & E. During ground-disturbing activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
15	**MM CUL-3: Cultural Resources Monitoring.** The Project Archaeologist shall be onsite to monitor ground disturbing activities twice a week, or as otherwise determined by the lead agency in consultation with the consulting tribes referenced in MM TCR-1. Ground disturbing activities include clearing vegetation, grubbing, digging, pavement removal, grading, excavation, trenching, plowing, drilling, blasting, potholing/auguring, and stripping topsoil. The Project Archaeologist shall have the authority to increase or decrease the monitoring effort should the monitoring results indicate that a change is warranted. The Project Archaeologist shall consult with the Consulting Tribes (defined below) prior to increasing or decreasing the monitoring schedule. Monitoring requirements shall end once ground disturbing activities are complete.	A. Monitor ground disturbing activities twice a week B. Consult with Consulting Tribes to define monitoring schedule	A &B. During ground disturbing activities	Permittee/ Construction Manager	LACDRP
16	**MM CUL-4: Unanticipated Discovery of Paleontological Resources.** Prior to start of ground disturbance, the construction crew shall participate in on-site training on the proper procedures to follow if paleontological resources are uncovered during the Project excavations, site preparation, or other related activities. This Worker Environmental Awareness Program (WEAP) shall include a comprehensive discussion of applicable laws and penalties under the law, samples or visuals of artifacts that might be found in the vicinity of the Project Site, a discussion of what paleontological resources may look like when partially buried or wholly buried and then freshly exposed, a discussion of what paleontological resources look like when exposed during construction, and instruction that employees are to halt work in the vicinity of a discovery (within 100 feet). This information may be provided in an informational brochure that outlines reporting procedures in the event of a discovery and should be provided to all individuals working on site. In the event that paleontological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and a qualified paleontologist who meets	A. Conduct a Worker Environmental Awareness Program for unanticipated discovery of paleontological resources B. Contact a qualified paleontologist who meets the Society of Vertebrate Paleontology guidelines C. If the find requires further evaluation and/or extraction, follow the fossil discovery protocols.	A. Prior to the start of ground disturbance activities B & C. During the ground-disturbing activities D. During ground disturbance activities	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	the Society of Vertebrate Paleontology guidelines shall be contacted immediately to evaluate the resource. If the find is large enough to warrant further evaluation and/or extraction, then the following fossil "discovery" protocol shall be followed: a) The paleontologist shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. b) The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study, or report. c) Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations. During ground disturbance activities, the Applicant shall submit a letter to the County for the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered.	D. Submit a letter to the County			
17	**MM CUL-5: Inadvertent Discovery of Human Remains.** If human remains or funerary objects are encountered during construction, all ground disturbance activities within 100 feet of the discovery shall be suspended and the construction manager shall immediately notify the County coroner pursuant to State Health and Safety Code §7050.5. This state code shall be enforced for the duration of the Project. If the human remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission (NAHC). The NAHC shall identify and immediately notify the Most Likely Descendant (MLD) of the deceased Native American. Within 48	A. Suspend all ground disturbance activities within 100 feet of a discovery if human remains or funerary objects are encountered. B. Notify County coroner C. Coroner to notify	A, B, and C. During construction activities	Permittee/ Construction Manager	LACDRP, MLD and/or Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	hours of being granted access to the site, the MLD shall complete the inspection of the site of the discovery and make recommendations to the Applicant/landowner for the treatment or disposition of the human remains and any associated funerary objects. All measures, as required by the County, shall be implemented under the supervision of the MLD and/or Tribal Monitor.	NAHC			
18	**MM TCR-1: Tribal Monitor.** Prior to the commencement of any ground disturbance activities, the Permittee shall retain a Tribal monitor(s) (Tribal Monitor) who is approved by the Fernandeno Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians) (the "Consulting Tribes") to provide tribal monitoring/consulting services alongside the Project Archaeologist in accordance with MM CUL-3. The Permittee shall submit a letter to the County of Los Angeles (County) to confirm the name and contact information of the Tribal Monitor(s) who is retained for the Project.	A. Retain Tribal Monitor(s) approved by FTBMI and YSMN B. Submit a letter to County to confirm name and contact information of the Tribal Monitor(s)	A & B. Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP, Tribal Monitors
19	**MM TCR-2: Tribal Cultural Resources Monitoring Plan.** Prior to the commencement of any ground disturbance activities, the Project Archaeologist, in consultation with the Consulting Tribes shall prepare and submit a Tribal Cultural Resources Monitoring and Treatment Plan (Monitoring and Treatment Plan) to the County for review. The Monitoring and Treatment Plan shall be approved by and the Consulting Tribes before those activities commence and the approved plan shall be submitted to the County. The Monitoring and Treatment Plan shall include methods for monitoring ground disturbance activities; procedures to follow when resources are discovered; protocol for identifying and evaluating tribal cultural resources; and shall incorporate measures to mitigate potential impacts to tribal cultural resources as provided in MM TCR-5, below.	A. Submit a Monitoring and Treatment Plan that is approved by the Consulting Tribes to the County for file record.	Prior to commencement of any ground disturbance activities	Permittee/ Construction Manager	LACDRP
20	**MM TCR-3: Worker Environmental Awareness Program (WEAP) Training.** Prior to the commencement of any ground disturbance activities, all project construction managers and	A. Project Archaeologist and Tribal Monitor(s) to administer tribal	A. Prior to commencement of any ground	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	workers shall attend a tribal cultural resources awareness training. The Project Archaeologist and the Tribal Monitor shall administer the training to inform construction managers and workers about the types of resources that could be encountered; the procedures to follow if tribal cultural resources are discovered; and the potential penalties for failing to adhere to applicable laws and regulations. The procedures include work curtailment or redirection and immediate contact of the on-call archaeologist and, if appropriate, the FTBMI and SMBMI representative. Construction managers shall maintain a log to document all construction personnel who have completed the training. The log shall be provided to the County upon request within five business days. The training requirement should be stated on all construction plans. The Tribal representatives from the Consulting Tribes shall be allowed to attend and participate in the training. The WEAP required under this measure may be combined with the WEAP described in MM CUL-1.	cultural resources awareness training to all construction managers and workers. B. Log all construction personnel who have completed the training C. Provide log to County upon request within five business days	disturbance activities B&C. Prior to or during ground disturbance activities.		
21	**MM TCR-4: Tribal Monitoring.** Tribal monitor(s) shall be present onsite to monitor ground disturbing activities based on a schedule coordinated and agreed by the Consulting Tribes or established by the County. Tribal monitor(s) shall monitor ground disturbing activities when the Project Archaeologist is onsite in accordance with MM CUL-3. If the Project's scheduled activities require the Tribal Monitor to leave the Project Site for a period of time and return, confirmation shall be submitted to the Tribes by the Permittee, in writing, upon completion of each set of scheduled activities and five (5) days' notice (if possible) shall be submitted to the Tribes by the Permittee, in writing, prior to the start of each set of scheduled activities. The Project Archaeologist and Tribal Monitor shall complete a log documenting all ground disturbance activities monitored, the locations where those activities occurred, the types of soils involved, and any tribal cultural resources	A. Tribal monitor(s) to monitor ground disturbing activities when Project Archaeologist is onsite B. Confirmation of scheduled activities to the Tribes C. Complete log documenting ground disturbance activities, locations, types of soil, and resources encountered	During ground disturbing activities based on schedule coordinated and agreed by the Consulting Tribes	Permittee/ Construction Manager	LACDRP

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	encountered. Monitoring shall end when ground disturbance activities are completed, or earlier if a Tribal Monitor has determined that the site has a low potential for impacting tribal cultural resources. Within 30 days after monitoring has ended, the Project Archaeologist and Tribal Monitor shall submit the logs to the County and the Permittee shall submit in writing to the Consulting Tribes that all scheduled activities are complete.	D. End monitoring when ground disturbance activities are completed E. Submit logs to the County and Consulting Tribes			
22	**MM TCR-5: Discovery of Tribal Cultural Resources.** If tribal cultural resources are encountered during construction, all ground disturbance activities within 100 feet of the find shall stop until the Tribal Monitor and the Project Archaeologist can evaluate the significance of the find and an area barrier shall be constructed. Construction activities may continue in other areas of the project site. The Project Archaeologist shall develop a research design including a plan to evaluate the resource for significance under CEQA criteria pursuant to Public Resources Code Section 21074. The archaeologist and the Consulting Tribes shall confer regarding the research design, evaluation efforts, and the resource's archaeological significance. If the discovery proves significant as determined by the Project Archaeologist and Consulting Tribes shall recommend appropriate measures subject to County's approval, to mitigate potential impacts to tribal cultural resources. Such measures may include but are not limited to resource avoidance, reburial, and preservation for educational purposes. Should it occur that avoidance, preservation in place, or on-site reburial are not an option for treatment, the Consulting Tribes and Project Archaeologist shall develop a curation agreement to be approved by the County and agreed between landowner and museum. The agreement may include legal and physical transfer of the collections and associated recordation, fees, and maintenance of the collection.	A. Stop ground disturbance activities within 100 feet of the find until the Tribal Monitor and Project Archaeologist can evaluate and construct a barrier B. Develop research design and plan to evaluate the resource C. Recommend appropriate measures to mitigate potential impacts to tribal cultural resources D. Develop curation agreement E. Prepare and submit a final monitoring report	A, B, C, D & E. During construction if tribal resources are encountered F. Within 90 days after monitoring has ended	Permittee/ Construction Manager	LACDRP Tribal Monitor

#	Mitigation	Action Required	When Monitoring to Occur	Responsibility Agency or Party	Monitoring Agency or Party
	The Consulting Tribes shall coordinate with the Permittee to ensure that all measures approved by the County are implemented. Within 90 days after monitoring has ended, the Project Archaeologist shall prepare and submit a final monitoring report documenting all encountered tribal cultural resources, the significance of the resources, and the treatment of the resources to the tribes for review and comment. An approved final report shall be submitted to the California Native American Heritage Commission, local CHRIS Information Center, the County, and Consulting Tribes.	F. Submit final report to California Natie American Heritage Commission, local CHRIS Information Center, County, and Consulting Tribes			