County of Los Angeles
CHIEF EXECUTIVE OFFICE
Kenneth Hahn Hall of Administration
500 West Temple Street, Room 713, Los Angeles, California 90012
(213) 974-1101
http://ceo.lacounty.gov

WILLIAM T FUJIOKA
Chief Executive Officer

Board of Supervisors
GLORIA MOLINA
First District

MARK RIDLEY-THOMAS
Second District

ZEV YAROSLAVSKY
Third District

DON KNABE
Fourth District

MICHAEL D. ANTONOVICH
Fifth District

August 23, 2011

ADOPTED
BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

16 August 23, 2011

Sachi A. Hamai
SACHI A. HAMAI
EXECUTIVE OFFICER

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:

DEPARTMENT OF PUBLIC WORKS:
HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147
(FIFTH DISTRICT) (3 VOTES)

SUBJECT

Approval of the recommended actions will adopt the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program for the High Desert Complex Solar Project (Project), approve the Project and Project budget, authorize the Department of Public Works to carry out the Project and execute design-build and operations and maintenance energy service contracts for the installation of two 1-megawatt solar photovoltaic plants that will partially serve the Mira Loma Detention Center and the Challenger Memorial Youth Center in the City of Lancaster, make findings of Project self-funding and adopt a resolution authorizing the County to enter into a facility financing contract for the Project under Section 4217 of the California Government Code, and authorize implementation of a Local Worker Hiring Program.

IT IS RECOMMENDED THAT YOUR BOARD:

1. Consider the Mitigated Negative Declaration for the High Desert Complex Solar Project together with any comments received during the public review process; find that the Mitigated Negative Declaration reflects the independent judgment and analysis of your Board; adopt the Mitigation Monitoring and Reporting Program, finding that the Mitigation Monitoring and Reporting Program is adequately designed to ensure compliance with the mitigation measures during Project implementation; find on the basis of the whole record before your Board that there is no substantial evidence the Project will have a significant effect on the environment; and adopt the Mitigated Negative Declaration.

2. Approve the High Desert Complex Solar Project and a $13,900,000 Project budget for two independent 1-megawatt solar photovoltaic track-mounted panels serving the Mira Loma Detention Center and the Challenger Memorial Youth Center funded with lease-purchase financing proceeds eligible for Qualified Energy Conservation Bond federal interest subsidies.

3. Adopt a resolution authorizing the County to enter into a Taxable Qualified Energy Conservation Bond Equipment Lease/Purchase Agreement via a private placement with Banc of America Leasing & Capital, LLC, in an aggregate principal amount not-to-exceed $14,000,000 at an interest rate not-to-exceed 2 percent (net of 70 percent federal Qualified Energy Conservation Bond interest subsidy) for a term of up to 18 years, and approve the form of Purchase Contract and Taxable Qualified Energy Conservation Bond Equipment Lease/Purchase Agreement (Direct Subsidy), and use up to $14,000,000 of the $14,445,000 in Qualified Energy Conservation Bond authorization allocated to the Project by your Board on August 10, 2010.

4. Authorize the Treasurer and Tax Collector and Chief Executive Office, as applicable, to execute and deliver on behalf of the County related documents, which are required in order to complete the financing and complete the transaction substantially as to form (collectively, the "Bond Documents"), and authorize the Chief Executive Office and/or Treasurer and Tax Collector to complete such documentation as may be necessary to complete the financing transaction.

5. Find that SunPower Corporation, Systems is the Responsive and Responsible Bidder that submitted the most advantageous and best value proposal for the design, construction and operations, and maintenance (for 10 years) of two independent 1-megawatt solar plants, based on the criteria stated in the Request for Proposals, including technical design and construction expertise,

skilled labor force availability, safety record, price, design-build team personnel and organization, work plan and schedule, and oral presentation.

6. Award and authorize the Director of Public Works to execute two contracts with SunPower Corporation, Systems consisting of a design-build energy services agreement to provide the Project design and construction at a maximum, not-to-exceed agreement sum of $10,975,302.50 and an operations and maintenance energy service contract, to provide operations and maintenance of the solar systems for 10 years at a maximum, not-to-exceed agreement sum of $530,640, with both contracts subject to receipt by the County of Acceptable Faithful Performance and Payment for Labor and Materials Bonds and evidence of required agreement insurance filed by the design-build entity.

7. Find that the terms of the recommended energy service contracts are in the best interests of the County, and that the anticipated cost to the County for electrical energy or conservation services provided by the two 1-megawatt solar plants under the energy service contracts will be less than the anticipated marginal cost to the County of electrical energy that would have been consumed by the County in the absence of those purchases, as provided for under California Government Code Section 4217.12, subdivision (a) (1).

8. Find that the funds for the repayment of the financing of the Project to be financed by the Taxable Qualified Energy Conservation Bond Lease/Purchase Agreement are projected to be available from revenues resulting from funding that otherwise would have been used for the purchase of electrical, thermal or other energy required by the County in the absence of such project as provided for under Section 4217.13 of the California Government Code.

9. Authorize the Director of Public Works to exercise control of the design completion allowance, including the authority to reallocate the allowance into the agreement sum, as appropriate, to resolve cost issues with SunPower Corporation, Systems that are identified during the design phase of the Project, such as changes resulting from unforeseen conditions, including construction related impacts.

10. Authorize the implementation of a Local Worker Hiring Program for the High Desert Complex Solar Project, and find that the program furthers a legitimate governmental interest for the reason stated in this letter, and in the Project files.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

Approval of the recommended actions will adopt the attached Mitigated Negative Declaration (MND) and Mitigation Monitoring and Reporting Program (MMRP) for the High Desert Complex Solar Project (Project) to be built on County-owned vacant land between the Mira Loma Detention Center (MLDC) and Challenger Memorial Youth Center (CMYC); approve the Project scope and Project budget; make a finding of self-funding; authorize the Director of Public Works to execute two agreements; authorize implementation of a Local Worker Hiring Program; and allow the Project to proceed.

The Project consists of site preparation and installation of two 1-megawatt (MW), for a total of 2-MW, solar photovoltaic (PV) ground mounted solar tracking panels systems, one of which will be connected to the Southern California Edison (SCE) meter located at MLDC and the other to the SCE meter at CYMC. The Project will generate electricity that will be fed to the power grid through the SCE meters. The solar electricity fed to the grid will offset an equal amount of usage by the MLDC and CMYC facilities through net-metering. The solar systems are expected to generate an amount of electricity, which will offset approximately 25 percent of usage at MLDC and 55 percent at CMYC.

Background

On August 10, 2010, your Board approved several actions related to its $39,018,000 allocation of Qualified Energy Conservation Bond (QECB) authorization, including an action to allocate $14,445,000 to the proposed Project to install an approximate 2-MW ground-mounted solar PV panel electricity generating system, including the allocation of $14,445,000 in authorization for the proposed Project. The QECB authorization was provided to the County under the American Recovery and Reinvestment Act of 2009. At that time, your Board authorized application for renewable energy production incentive payments available under the California Solar Initiative (CSI), to finance the proposed Project.

The QECB program provides direct federal subsidy of 70 percent of the interest costs on the bonds. In response to a competitive design-build proposal process, SunPower Corporation, Systems (SunPower) proposed a private placement structure with Banc of America Leasing & Capital, LLC (BALC) to finance the construction of the Project. Under the proposed financing structure, BALC will purchase the QECBs at the 8-year U.S. Treasury Interest Rate Swap Rate plus 2.16 percent, presently resulting in a taxable interest rate of 4.68 percent and a net interest rate to the County (after receipt of the County's interest subsidy payment from the federal government) of 1.21 percent.

The Treasurer and Tax Collector (TTC) has evaluated the private placement structure and determined that the financing cost is competitive with a traditional public debt offering and would enable the County to execute the transaction on an accelerated schedule to take advantage of historically low interest rates in the U.S. Treasury market. A private placement structure would also allow the County to meet the requirement of the CSI for execution of the design-build energy services contract to be completed by the end of August 2011. We request an authorization of a net interest not-to-exceed rate of 2 percent to cover potential increases in the 8-year U.S. Treasury Interest Rate Swap Rate, prior to closing.

To access the CSI incentive payments, which pay an incentive rate for producing clean, renewable energy, the Chief Executive Office (CEO) submitted applications for the two 1-MW solar systems in October 2010 and received approval for incentives in January 2011 at the 19 cent per kilowatt-hour (kWh) rate. The incentive program will pay the County 19 cents per kWh for the electricity the systems produce during their first five years in operation. The incentive will be paid each month for the first 60 months the system is in operation. Based on the projected electricity production of the solar systems (combined at 5.34 million kWh in the first year), the incentive payments are projected to amount to more than $1.0 million per year, for a total of $5.0 million.

Based on the 25-year life of the PV solar systems, it is estimated that the reduced utility costs, CSI incentive payments and low-cost financing through the QECB borrowing, will result gross savings over the 25-year life of the PV solar systems of no less than $8.5 million ($4.8 million net present value (NPV) savings). At current rates (net interest rate of 1.21 percent), the net County benefit of the Project is projected at $9.3 million gross savings over 25 years ($5.3 million NPV savings). The cost savings are reflected in Attachment C. To determine the avoided cost rate assumption that reflects the cost savings value of each kWh produced by the solar systems (11.25 cents per KWh), the County relies on an independent analysis conducted by an engineering consultant contracted by the County, which considered existing consumption patterns, rates, and usage at MLDC and CMYC. The analysis of energy production takes into account SunPower's past actual energy production versus projected production for projects of similar type. Other assumptions used in the analysis are reflected in Attachment C.

To protect the County from lower than expected benefits from underperformance of the system, SunPower will be required to compensate the County if annual production falls below 90 percent of the projected production. Based on contract terms of the recommended contract, the repayment requirements of the recommended private placement financing proposal and available utility data, the CEO believes there is more than sufficient evidence to support the finding required under Code Section 4217.12 that the Project results in an anticipated cost of electricity to the County that is lower than the anticipated marginal cost of electricity if we had not undertaken the Project.

Proposed Contracts

SunPower was found to have submitted the best value and most advantageous proposal to perform the design, construction and operations, and maintenance of the Project. We recommend your Board award: (1) the design-build contract to SunPower in the maximum agreement sum of $10,975,302.50, which includes a $250,000 design completion allowance; and (2) a 10-year operations and maintenance energy service contract to SunPower for a maximum agreement sum of $530,640 (at $4,422 per month for 120 months) to provide operations and maintenance services, subject to SunPower satisfying the conditions for contract awards.

The design-build energy service contract's design completion allowance is intended to facilitate the resolution of issues identified only during the design phase of the Project, including issues concerning the County's scoping documents, or changes required by jurisdictional agencies, or due to unforeseen conditions discovered during design, including any increased design or construction costs associated therewith. The inclusion of the design completion allowance will facilitate the decision process during design and minimize potential delays that could occur while design-phase issues are resolved. The use of the design completion allowance will be controlled by the Department of Public Works (Public Works), but will require written approval from the CEO before any reallocation of funds from the design completion allowance into the agreement sum is permitted. The design completion allowance shall not be used to fund the resolution of issues, conditions, or changes encountered during the construction phase. The design completion allowance will be included in the QECB lease-purchase financing.

Operations and Maintenance (O&M) Contract

SunPower will be responsible for the maintenance and operations under the Operations and Maintenance (O&M) contract for a period of 10 years. At the end of the contract term, the County may choose to continue to contract with SunPower, or another outside provider, or provide its own maintenance. The O&M contract requires SunPower to provide training to County staff prior to the end of the contract to enable the County to provide this function if it chooses to at that time.

Upon determination of the apparent best value proposer, Public Works negotiated final terms with SunPower, which resulted in the $10,975,302.50 maximum agreement sum for the design-build energy service agreement, and in the $530,640 maximum agreement sum for the operations and maintenance energy services contract.

Private Placement QECB Lease Purchase Financing

To provide the financing for the Project, we recommend the use of a private placement facility financing contract with BALC. The authorizing resolution is attached hereto as Attachment D. The County will secure the financing through a security interest in the solar equipment. The Bond Documents which are recommended for approval as to form by your Board will facilitate this transaction. The Bond Documents consist of: (1) a Taxable Qualified Energy Conservation Bond Equipment Lease/Purchase Agreement (Direct Subsidy) (Attachment E); and; and (2) a Purchase Contract (Attachment F).

Local Worker Hiring Program

On October 19, 2010, your Board approved the Local Worker Hiring Program (LWHP) for the Martin Luther King, Jr. (MLK) Medical Center Inpatient Tower Renovation and Multi/Service Ambulatory Care Center (MACC) Projects. That program included a mandatory requirement that a minimum of 30 percent of the California construction labor hours be performed by qualified "local residents." Further, one-third of the local worker hours or 10 percent of the total California construction work hours are required to be performed by "Disadvantaged Local Workers," individuals who possess specific documentable social/economic barriers.

"Local residency" was defined with a two-tier system - first preference was to be given to qualified workers residing within the County in zip codes within a 5-mile radius of the MLK Medical Center; and second preference given to qualified workers residing within the County in any zip code having an unemployment rate in excess of 150 percent of the average unemployment rate for the County.

As a basis for implementing this LWHP with a mandatory minimum threshold, a Factual Predicate Study (Study) was prepared. The Study reviewed an extensive amount of data and determined that there are areas of the County with high concentrations of disparity, such as excessive rates of unemployment, poverty, home foreclosures, etc. These findings are consistent with your Board's action in December 2009, in which the entire County was designated an economic recovery zone.

On February 8, 2011, your Board authorized a LWHP for the East Rancho Dominguez Library Project using the same two-tier definition of a local worker – a County resident living within a 5-mile radius of the Project site, or living in a zip code with an unemployment rate in excess of 150 percent of the County average rate.

Recommended LWHP for the High Desert Complex Solar Project

The Study documented that the City of Lancaster was one of the 30 cities/ census-designated places in the County with an unemployment rate in excess of

150 percent of the national unemployment rate of 9.7 percent. The City of Lancaster includes three zip codes (93534, 93535, and 93536) in which the poverty rate for families is higher and per capita income is lower than in the County as a whole. These zip codes constitute approximately 85 percent of the land area within a 5-mile radius of the Project site. Therefore, it is recommended that a LWHP be implemented for the Project with the following key elements:

- The design-builder is required to make a good-faith effort to employ qualified local workers to perform at least 30 percent of the total California craft worker hours.

- "Local residency" is defined with a two-tier system: first preference will be given to qualified workers residing within the County in zip codes within a 5-mile radius of the Project; and second preference given to qualified workers residing within the County in any zip code having an unemployment rate in excess of 150 percent of unemployment rate for the County as a whole or a Bank Enterprise Awards Distressed Community.

Sustainable Design Program

The installation of the solar plant will further your Board's Sustainable Design Program by reducing the amount of electricity it uses from polluting sources. The installation of the plants will reduce the County's carbon footprint by substituting clean solar energy for coal and gas-generated power supplied by SCE through the electricity grid. The development of the plant will help further develop and support the growing solar industry in the Los Angeles County.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs the provision of Operational Effectiveness (Goal 1) by maximizing the effectiveness of the County's processes, structure, and operations to support the timely delivery of customer-oriented and efficient public services. This Project will help achieve this goal as it is an investment in public infrastructure that will serve two Antelope Valley facilities by reducing the use of hydrocarbons being used to generate electricity.

FISCAL IMPACT/FINANCING

The Project will have a positive net financial impact on the General Fund, commencing in Fiscal Year (FY) 2012-13 due to the benefits of the SCE utility savings, the CSI incentives, and the QECB federal interest subsidy.

In the worst case scenario where the net interest rate of the bonds is at the maximum authorization of 2 percent, a net positive will be maintained each year, with annual benefits increasing over time as the avoided utility costs rise from increasing rates. Gross savings in this scenario are projected at approximately $8.5 million ($4.6 million NPV savings) over the 25-year life of the PV solar systems.

At current rates, total projected savings will be in excess of $1.8 million ($1.3 million NPV savings), and approximately $9.4 million gross savings ($5.3 million NPV savings) over the 25-year lifetime of the solar systems (see Attachment C). As indicated in Attachment C under County Benefit, the anticipated budgetary impact of the Project will start at an estimated $1,132 in year 1 (FY 2012-13), and grow annually, with a positive net impact of $1,017,168 in year 25 (FY 2036-37). While utility savings will rise each year by an assumed average of 3 percent due to increasing utility rates, net debt service expenses will be maintained at the approximate $600,000 amount per year, resulting in growing annual County benefits over the course of the 25 years. The costs of issuance is set at $100,000 and will fund legal fees and closing costs. Any excess balance in costs of issuance will be added to the Project construction fund.

The Project budget is $13,900,000, including the design-build energy service contract costs covering design and construction, design completion allowance, change orders, consultant services, plan check, miscellaneous expenditures, and County services.

The Project Schedule and Budget Summary are included in Attachment A.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The contract contains terms and conditions supporting your Board's ordinances and policies, including, but not limited to: County Code Chapter 2.200, Child Support Compliance Program; County Code Chapter 2.202, Contractor Responsibility and Debarment; County Code Chapter 2.203, Contractor Employee Jury Service Program; County Code Chapter 2.206, Defaulted Property Tax Reduction Program; Board Policy 5.050, County's Greater Avenues for Independence and General Relief Opportunities (GAIN/GROW); Board Policy 5.060, Reporting of Improper Solicitations; Board Policy 5.110, Contract Language to Assist in Placement of Displaced County Workers; and Board Policy 5.135, Notice to Contract Employees of Newborn Abandonment Law (Safely Surrendered Baby Law).

As requested by your Board on August 12, 1997, and as a threshold requirement for consideration for contract award, SunPower is willing to consider GAIN/GROW participants for future employment.

As required by your Board, language has been incorporated into the Project specifications stating that the contractor shall notify its employees, and shall require each subcontractor to notify its employees that they may be eligible for the Federal Earned Income Credit under the Federal income tax law (Federal Income Tax Law, Internal Revenue Service Notice 1015).

The Project specifications contain provisions requiring the contractor to report solicitations of improper consideration by County employees and allowing the County to terminate the contract if it is found that the contractor offered or gave improper consideration to County employees.

The funding source for the Project (QECB financing) cannot be used to fund 1 percent of the estimated design and construction costs to the Civic Art Fund per your Board's Civic Art Policy adopted on December 7, 2004, and revised on November 18, 2008.

ENVIRONMENTAL DOCUMENTATION

An Initial Study was prepared for this Project in compliance with the California Environmental Quality Act. The Initial Study identified potentially significant effects of the Project, in the following areas: for aesthetics, biological resources, cultural resources, hazards and hazardous materials, noise, public services, and utilities and service systems. Prior to the release of the proposed Initial Study/MND for public review, revisions in the Project were made or agreed to which would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, as follows:

Aesthetics:	Glare from the solar energy facility will be mitigated through appropriate facility and site design.
Biological Resources:	Impacts to migratory birds will be mitigated by conducting construction activities outside the bird nesting season (March 15 - September 15). Vegetation and ground disturbances to an "Avoidance Area" on the southern boundary of the Project site will be mitigated through the use of above ground pipes and overhead utility lines and the identification of prohibited activities within the subject area.
Cultural Resources:	A buffer zone of at least 30 feet around the former wastewater treatment system with permanent fencing will be maintained and a qualified Archaeologist will observe grading activities to ensure that procedures for the sampling, identification, and evaluation of artifacts are appropriately

followed in the event that such items are exposed during grading activities.

Hazardous Materials: Demolished structures will be tested for hazardous material content and disposal of hazardous materials will be performed in accordance with applicable regulatory requirements. In addition, soil samples shall be taken and tested for contaminants of concern upon determination of the location of the solar panels. If soil test results indicate the presence of hazardous materials, the appropriate measures to mitigate this will be conducted in compliance with the applicable regulations and under oversight by a local or State governmental agency. Furthermore, the County will require the use of biodegradable, non toxic and hazardous cleaning agents, and additives for the cleaning of the solar energy facility.

Noise: A temporary 10-foot noise barrier will be constructed prior to the start of construction activities. Equipment and staging areas will be placed at appropriate distances from the adjacent High Desert MACC and MLDC to further mitigate noise impacts.

Public Services: Permanent structures will not be placed within 100 feet of the MLDC fence line, nor will parking or storage be made within 100 feet of the MLDC.

Utility Systems: Use of non-potable water or water derived from sources other than the Antelope Valley Groundwater Basin will be utilized at the proposed facility and landscaped areas will not require a permanent supply of irrigation water.

The Initial Study and Project revisions showed that there is no substantial evidence, in light of the whole record before the County, that the Project, as revised, will have a significant effect on the environment. Based on the Initial Study and Project revisions, an MND was prepared for the Project.

Public notice was published in the Antelope Valley Press newspaper on May 16, 2011, pursuant to Public Resources Code, Section 21092, and posted pursuant to Section 21092.3. The Initial Study and MND were made available to the public for review and comments from May 16 to June 14, 2011. The following comment letters were received, all from public agencies: Native American Heritage Commission, Lahontan Regional Water Quality Control Board, and the County of Los Angeles

Fire Department. Responses to the comments are included in the final MND and sent to these agencies pursuant to Section 21092.5.

The location of the documents and other materials constituting the record of the proceedings upon which your Board's decision is based in this matter is the Los Angeles County Department of Public Works, Project Management Division II 900 South Fremont Avenue, 5th Floor, Alhambra, California 91803. The custodian of such documents and materials is James Kearns.

The Project is not exempt from payment of a fee to the California Department of Fish and Game pursuant to Section 711.4 of the Fish and Game Code to defray the costs of fish and wildlife protection and management incurred by the California Department of Fish and Game. Upon your Board's adoption of the MND, Public Works will file a Notice of Determination in accordance with Section 21152(a) of the California Public Resources Code and pay the required filing and processing fees with the Registrar-Recorder/County Clerk in the amount of $2,119.00

CONTRACTING PROCESS

This Project includes two contracts: one for the design-build phase of the Project, and the other for the operations and maintenance phase of the Project. Both agreements have been reviewed and approved as to form by County Counsel. The standard Board-directed clauses that provide for contract termination, renegotiation, and hiring qualified displaced County employees will be included in the agreements.

On March 29, 2011, the Request for Proposals (RFP) for design-build and operations and maintenance energy services contracts was advertised. This contract opportunity was also listed in the County's Doing Business with Us website. The first phase of the RFP process was submission of prequalification questionnaires.

On April 28, 2011, 12 firms submitted the prequalification questionnaires for evaluation. The prequalification questionnaires were evaluated by the evaluation committee consisting of representatives from the CEO and Public Works, based on responses to questions concerning the business type and ownership of each design-build entity, evidence of the design-builder's experience and capacity to perform projects of similar size and complexity, licenses, registration, credentials, the capacity to obtain payment and performance bonding, errors and omissions, insurance, violations of State and Federal labor codes and safety regulations, debarment, default, bankruptcy, lawsuits on Public Works' projects in the past five years, and other relevant criteria. Based on the review and evaluation of the prequalification questionnaires, all 12 firms were prequalified. In accordance with the short-listing requirements in the RFP, the five top-ranked firms were short-listed and invited to submit technical and cost proposals. Subsequently, one of the five invited firms requested to be withdrawn.

The second phase of the RFP process was submission of technical and cost proposals by the top four prequalified firms. On June 20, 2011, the four firms submitted technical and cost proposals for evaluation. The technical and cost proposals were evaluated by a panel of representatives from the CEO and Public Works, based on the technical design and construction experience, price, skilled labor force availability, safety record, price, design-build team personnel and organization, proposed work plan and schedule, and oral presentation.

Final ranking of proposers is listed in Attachment B. SunPower was found to have submitted the best value and most advantageous proposal to perform these services in accordance with the evaluation criteria stated in the RFPs. These evaluations were completed without regard to race, creed, color, or gender.

The design-build and operations and maintenance energy service contracts and the facility financing contract are allowed by and prepared based on California Government Code, Sections 4217.10 through 4217.18, Chapter 3.2, Energy Conservation Contracts, which allows public agencies to enter into an energy service contract "on terms that its governing body determines are in the best interests of the public agency if the determination is made at a regularly scheduled public hearing, public notice of which is given at least two weeks in advance, and if the governing body finds:...that the anticipated cost to the public agency for thermal or electrical energy ... provided by the energy conservation facility under the contract will be less than the anticipated marginal cost to the public agency of thermal, electrical, or other energy that would have been consumed by the public agency in the absence of those purchases." Public Works filed the required Public Notice on August 9, 2011 on the County's Doing Business With Us website to comply with this notice requirement.

The Energy Conservation Contracts statute is intended to "provide the greatest possible flexibility" to public agencies in structuring energy service contracts "so that economic benefits may be maximized, and financing and other costs associated with the design and construction of alternate energy projects may be minimized."

As required by the aforementioned statute, the cost analysis performed (Attachment D) has shown that the electrical energy cost provided by the solar plants will be less than the electrical energy cost to the County provided by the existing energy provider.

SunPower's Community Business Enterprises participation data (30.5 percent) and 3-year contracting history with the County are on file with Public Works.

Public Works' Architectural Engineering Division will provide the technical design review and commissioning monitoring services during construction with assistance from the specialty consultants obtained through the Board-approved as-needed agreements or through the RFP process.

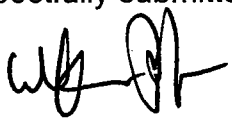
IMPACT ON CURRENT SERVICES (OR PROJECTS)

There will be no impact on current County services or projects during the performance of the recommended services.

CONCLUSION

Please return one adopted copy of this letter to the Chief Executive Office, Capital Projects Division; and Public Works, Project Management Division II.

Respectfully submitted,



WILLIAM T FUJIOKA
Chief Executive Officer

WTF:RLR:DJT
SW:PB:zu

Attachments

c: Executive Office, Board of Supervisors
County Counsel
Auditor-Controller
Arts Commission
Public Works
Treasurer and Tax Collector

August 23, 2011

ATTACHMENT A

DEPARTMENT OF PUBLIC WORKS:
HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147
(FIFTH DISTRICT) (3 VOTES)

I. PROJECT SCHEDULE

Project Activity	Scheduled Completion Date
Request for Proposals – Part A (Qualifications)	05/02/11
Request for Proposals – Part B (Cost and Technical)	06/20/11
Award	08/23/11
Construction Substantial Completion:	
Mira Loma Detention Center	04/30/12
Challenger Memorial Youth Center	06/01/12
Operations and Maintenance Completion:	
Mira Loma Detention Center	04/30/22
Challenger Memorial Youth Center	06/01/22
Acceptance (Construction):	
Mira Loma Detention Center	06/30/12
Challenger Memorial Youth Center	08/01/12
Acceptance (Operations and Maintenance):	
Mira Loma Detention Center	06/30/22
Challenger Memorial Youth Center	08/01/22

II. PROJECT BUDGET SUMMARY

Budget Category	Project Budget
Land Acquisition	$ 0
Construction	
Design Build	$ 10,975,302.50
Change Orders (10 percent)	$ 1,097,530.50
Departmental Crafts	$ 0
Youth Employment	$ 0
Make Ready Work	$ 0
Construction Consultants	$ 0
Miscellaneous Expense	$ 13.581
Soil/Hazardous Material Removal	$ 222,160
Gordian Group	$ 0
Subtotal	**$ 12.308.574**
Plans and Specifications	
A/E Fee	$ 0
A/E Optional Services	$ 0
Construction Administration	$ 0
Subtotal	**$ 0**
Consultant Services	
Deputy Inspection	$ 40,000
Geotechnical/Geological Investigation	$ 0
Hazardous Materials	$ 75,000
Geotech/Soils Test	$ 0
Material Testing	$ 0
Cost Estimating	$ 50,000
Topographic Surveys	$ 0
Construction Management	$ 0
Construction Administration	$ 113,000
Support Services (Labor Compliance)	$ 70,000
Constructability Review	$ 0
Legal	$ 0
Scheduling	$ 30,000
Contract/Change Order	$ 0
Consultant Services	$ 0
Other	$ 0
Subtotal	**$ 378.000**

II. PROJECT BUDGET SUMMARY (continued)

Budget Category	Project Budget
Miscellaneous Expenditures	
Affirmative Action	$ 15,000
Printing and Legal Advertising	$ 10,000
Furniture, Fixtures, and Equipment	$ 0
Subtotal	**$ 25,000**
Jurisdictional Review/Plan Check/Permit	
Building and Safety Division	
Building and Safety Plan Check/Permits	$ 40,000
AQMD	$ 5,000
Fire Department Inspection	$ 5,000
Regional Planning	$ 3,000
Environmental Programs Division	$ 5,000
Geotechnical and Materials Engineering Division	$ 5,000
Subtotal	**$ 63,000**
County Services	
Architectural and Engineering Division	
Construction Inspection Services	$ 212,160
Design Review	$ 50,000
Design Services	$ 0
Contract Administration	$ 48,750
AED Support Services	$ 150,000
Project Management	$ 368,000
Project Management Support Services	$ 0
Secretarial	$ 24,291
Document Control	$ 158,156
Project Technical Support	$ 59.311
Consultant Contract Recovery	$ 49,758
Support Services (Office of Affirmative Action)	$ 5,000
Subtotal	**$ 1,125.426**
Total	**$ 13,900,000**

August 23, 2011

ATTACHMENT B

DEPARTMENT OF PUBLIC WORKS:
HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147
(FIFTH DISTRICT) (3 VOTES)

The Project consists of site preparation and installation of two 1-MW solar photovoltaic solar tracking panels, which are to be installed on vacant County-owned land located between the Mira Loma Detention Center and the Challenger Memorial Youth Center.

Request for Proposal Date: March 28, 2011

Proposer Ranking from Most Advantageous to Least:

1. SunPower Corporation, Systems
2. Abacus Project Management, Inc.
3. Morrow-Meadows Corporation
4. SPG Solar, Inc.

The design-build and operations and maintenance energy service contracts will be issued to SunPower for a total of $11,505,942.50 ($10,975,302.50 for design-build services contract, including $250,000 design completion allowance; $530,640 for operations and maintenance contract, for 120 months of operations and maintenance services).

August 23, 2011

ATTACHMENT C

HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147

SELF-FUNDING ANALYSIS – 2 MW HIGH DESERT COMPLEX

ATTACHMENT C

LA COUNTY
Self-Funding Solar - 2 MW High Desert Complex

ENERGY SAVINGS

Estimated System Size (kWp) =	2,260
Installed Price per Watt =	$4.86
Solar kWh Generated (First Yr)	5,435,555
Annual Rate of PV Degradation	0.50%
% of Prodcution Achieved =	100%
Value of Solar / kWh (Avoided Cost)	$0.1153
Annual Electricty Inflation	3.00%
CSI Rebate	$0.190
Cost of O&M Contract ($/Wp)	fixed
O&M Escalation Rate (beg Yr 11)	3.00%

-

REPAYMENT OF BONDS

SunPower Design Build Contract	$	10,975,302
Other Project Costs =	$	2,924,698
Cost of Issuance =	$	100,000
Total QECBs Issued	**$**	**14,000,000**

Net Interest Cost Estimate on = 8/1/2011

8yr Treas Swap	2.52%
Add: Proposed Spread	2.16%
Taxable Interest Rate to Bank	4.68%
Tax Cr Rate = -4.96%	
70% Direct Pay by Fed =	-3.47%
Net Interest Cost on QECBs =	**1.21%**

=

COUNTY BENEFIT

25-YR LCOE = $0.094
(Levelized Cost of Energy)

0.72%

Over Bond Term:

Gross Savings = $ 1,872,031
17-Year NPV = $ 1,297,655

Over 25 Years

Gross Savings = $ 9,365,020
25-Year NPV = $ 5,260,738

	Savings on Utility Bill	Cost of O&M Contract	CSI Rebate	Net Energy Savings	Principal	Net Interest Cost	Net Lease Payment	Annual	Cumulative
1	$ 626,448	$ (53,064)	$ 1,032,755	$ 1,606,139	$ (1,435,747)	$ (169,260)	$ (1,605,007)	$ 1,132	$ 1,132
2	$ 642,015	$ (53,064)	$ 1,027,592	$ 1,616,543	$ (1,458,105)	$ (151,902)	$ (1,610,007)	$ 6,535	$ 7,667
3	$ 657,969	$ (53,064)	$ 1,022,454	$ 1,627,359	$ (1,480,734)	$ (134,273)	$ (1,615,007)	$ 12,351	$ 20,019
4	$ 674,320	$ (53,064)	$ 1,017,341	$ 1,638,597	$ (1,503,636)	$ (116,371)	$ (1,620,007)	$ 18,590	$ 38,608
5	$ 691,076	$ (53,064)	$ 1,012,255	$ 1,650,267	$ (1,526,815)	$ (98,192)	$ (1,625,007)	$ 25,260	$ 63,868
6	$ 708,250	$ (53,064)	$ -	$ 655,186	$ (517,274)	$ (79,733)	$ (597,007)	$ 58,178	$ 122,046
7	$ 725,850	$ (53,064)	$ -	$ 672,786	$ (523,528)	$ (73,479)	$ (597,007)	$ 75,778	$ 197,825
8	$ 743,887	$ (53,064)	$ -	$ 690,823	$ (529,857)	$ (67,150)	$ (597,007)	$ 93,816	$ 291,641
9	$ 762,373	$ (53,064)	$ -	$ 709,309	$ (536,263)	$ (60,744)	$ (597,007)	$ 112,301	$ 403,942
10	$ 781,318	$ (53,064)	$ -	$ 728,254	$ (542,747)	$ (54,260)	$ (597,007)	$ 131,246	$ 535,188
11	$ 800,733	$ (74,000)	$ -	$ 726,733	$ (549,309)	$ (47,699)	$ (597,007)	$ 129,726	$ 664,914
12	$ 820,632	$ (76,220)	$ -	$ 744,412	$ (555,950)	$ (41,057)	$ (597,007)	$ 147,404	$ 812,318
13	$ 841,024	$ (78,507)	$ -	$ 762,518	$ (562,671)	$ (34,336)	$ (597,007)	$ 165,510	$ 977,829
14	$ 861,924	$ (80,862)	$ -	$ 781,062	$ (569,474)	$ (27,533)	$ (597,007)	$ 184,055	$ 1,161,883
15	$ 883,342	$ (83,288)	$ -	$ 800,055	$ (576,359)	$ (20,648)	$ (597,007)	$ 203,048	$ 1,364,931
16	$ 905,294	$ (85,786)	$ -	$ 819,507	$ (583,327)	$ (13,680)	$ (597,007)	$ 222,500	$ 1,587,431
17	$ 927,790	$ (88,360)	$ -	$ 839,430	$ (548,202)	$ (6,628)	$ (554,830)	$ 284,600	$ 1,872,031
18	$ 950,846	$ (91,011)	$ -	$ 859,835	$ -	$ -	$ -	$ 859,835	$ 2,731,866
19	$ 974,474	$ (93,741)	$ -	$ 880,733	$ -	$ -	$ -	$ 880,733	$ 3,612,599
20	$ 998,690	$ (96,553)	$ -	$ 902,137	$ -	$ -	$ -	$ 902,137	$ 4,514,736
21	$ 1,023,507	$ (99,450)	$ -	$ 924,057	$ -	$ -	$ -	$ 924,057	$ 5,438,793
22	$ 1,048,941	$ (102,433)	$ -	$ 946,508	$ -	$ -	$ -	$ 946,508	$ 6,385,301
23	$ 1,075,008	$ (105,506)	$ -	$ 969,501	$ -	$ -	$ -	$ 969,501	$ 7,354,803
24	$ 1,101,722	$ (108,671)	$ -	$ 993,050	$ -	$ -	$ -	$ 993,050	$ 8,347,853
25	$ 1,129,099	$ (111,932)	$ -	$ 1,017,168	$ -	$ -	$ -	$ 1,017,168	$ 9,365,020
Total	$ 21,356,530	$ (1,906,960)	$ 5,112,397	**$ 24,561,967**	$ (14,000,000)	$ (1,196,947)	$ (15,196,947)	**$ 9,365,020**	

August 23, 2011

ATTACHMENT D

HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, CALIFORNIA, AUTHORIZING THE EXECUTION AND DELIVERY OF A TAXABLE QECB EQUIPMENT LEASE/PURCHASE AGREEMENT (DIRECT SUBSIDY) WITH RESPECT TO THE ACQUISITION, PURCHASE, FINANCING AND LEASING OF CERTAIN ENERGY CONSERVATION EQUIPMENT; AUTHORIZING THE EXECUTION AND DELIVERY OF A PURCHASE CONTRACT, ACQUISITION FUND AGREEMENT AND OTHER DOCUMENTS REQUIRED IN CONNECTION THEREWITH; FINDINGS PURSUANT TO SECTION 4217.13 OF THE CALIFORNIA GOVERNMENT CODE; AND AUTHORIZING THE TAKING OF ALL OTHER ACTIONS NECESSARY TO THE CONSUMMATION OF THE TRANSACTIONS CONTEMPLATED BY THIS RESOLUTION.

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, CALIFORNIA, AUTHORIZING THE EXECUTION AND DELIVERY OF A TAXABLE QECB EQUIPMENT LEASE/PURCHASE AGREEMENT (DIRECT SUBSIDY) WITH RESPECT TO THE ACQUISITION, PURCHASE, FINANCING AND LEASING OF CERTAIN ENERGY CONSERVATION EQUIPMENT; AUTHORIZING THE EXECUTION AND DELIVERY OF A PURCHASE CONTRACT, ACQUISITION FUND AGREEMENT AND OTHER DOCUMENTS REQUIRED IN CONNECTION THEREWITH; FINDINGS PURSUANT TO SECTION 4217.13 OF THE CALIFORNIA GOVERNMENT CODE; AND AUTHORIZING THE TAKING OF ALL OTHER ACTIONS NECESSARY TO THE CONSUMMATION OF THE TRANSACTIONS CONTEMPLATED BY THIS RESOLUTION.

WHEREAS, the County of Los Angeles (the *"County"*), a political subdivision of the State of California, is authorized by its Los Angeles County Charter and the laws of the State of California to lease, purchase, acquire and install the Energy Conservation Equipment (herein described) on County-owned land and to enter into contracts with respect thereto; and

WHEREAS, the County desires to lease and purchase certain equipment and other personal property with an aggregate cost not to exceed $14,000,000 for two 1-megawatt solar photovoltaic plants (collectively, the *"Energy Conservation Equipment"*) on County-owned vacant land located between the Mira Loma Detention Center and the Challenger Memorial Youth Center in the City of Lancaster, California, that constitute a qualified energy conservation project that qualifies as a "qualified conservation purpose" under Section 54D(f) of the Internal Revenue Code of 1986, as amended (the *"Code"*); and

WHEREAS, pursuant to Section 4217.13 of the California Government Code and other applicable provisions of law, the Board of Supervisors has caused a Notice of Public Hearing to be duly given by the County's Board of Public Works on August 9, 2011, a date at least two weeks prior to its public hearing described therein, and has held such public hearing on the date hereof concerning the County's entering into a facility financing contract pursuant to Section 4217.13 and at the hearing has found and determined that the funds for the repayment of the financing of the equipment and other property to be financed by the Agreement (described below) are projected to be available from amounts that otherwise would have been used for the purchase of electrical, thermal or other energy required by the County in the absence of the Energy Conservation Equipment; and

WHEREAS, in connection with the financing of the acquisition and installation of the Energy Conservation Equipment, Banc of America Leasing & Capital, LLC (in such capacity, the *"Offeror"*) has submitted to the County its written offer that, upon acceptance by the County, will constitute a binding written contract (the *"Purchase Contract"*) to enter into that certain Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy) (the *"Agreement"*) between the County and Banc of America Leasing & Capital, LLC (or one of its affiliates) (in such capacity, the *"Lessor"*) and that certain Acquisition Fund and Account Control Agreement (the *"Acquisition Fund Agreement"*) among the County, the Lessor and the Acquisition Fund

Custodian therein identified, and the Purchase Contract executed by the Offeror and the forms of the Agreement and the Acquisition Fund Agreement have been presented to the Board of Supervisors of the County of Los Angeles at this meeting; and

WHEREAS, the County desires to designate the aggregate principal component of Rental Payments under the Agreement for purposes Section 54D(a)(3) of the Code as a *"qualified energy conservation bond"* within the meaning of Section 54D(a) of the Code; and

WHEREAS, the County desires to receive direct cash subsidy payments from the United States Department of Treasury as provided by Section 6431 of the Code with respect to the Agreement and, in that connection, to irrevocably elect to have Section 6431(f) of the Code apply to the Agreement; and

WHEREAS, the Board of Supervisors of the County of Los Angeles deems it for the benefit of the County and for the efficient and effective administration thereof to enter into the Purchase Contract, the Agreement and the Acquisition Fund Agreement (collectively, the *"Financing Agreements"*) and the documentation related to the financing of the Energy Conservation Equipment on the terms and conditions therein provided;

NOW, THEREFORE, THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES DOES HEREBY RESOLVE, DETERMINE AND ORDER AS FOLLOWS:

Section 1. Defined Terms. Capitalized terms that are used, but not defined, in this Resolution shall have the same meaning as when such terms are used in the preambles to this Resolution.

Section 2. Approval and Authorization of Purchase Contract. The form, terms and provisions of the Purchase Contract are hereby approved and the Treasurer and Tax Collector of the County is hereby authorized and directed to accept, execute and deliver the Purchase Contract for and on behalf of the County, with such insertions, omissions and changes as shall be approved by the Treasurer and Tax Collector. The Purchase Contract shall be effective and binding on the County upon such acceptance, execution and delivery on behalf of the County.

Section 3. Approval and Authorization of Agreement and Acquisition Fund Agreement. The form, terms and provisions of the Agreement and the Acquisition Fund Agreement are hereby approved in substantially the forms presented at this meeting, with such insertions, omissions and changes as shall be approved by the Treasurer and Tax Collector of the County, with the execution of each such agreement being conclusive evidence of such approval. The Treasurer and Tax Collector is hereby authorized and directed to execute, and the Executive Officer-Clerk of the Board of Supervisors of the County of Los Angeles, or any duly authorized Deputy is hereby authorized and directed to attest, the Agreement (including any related Exhibits attached thereto) and the Acquisition Fund Agreement and to deliver the Agreement (including such Exhibits) and the Acquisition Fund Agreement to the respective parties thereto.

Section 4. Designation for Purposes of Section 54D(a)(3) of the Internal Revenue Code of 1986; Irrevocable Election. The County hereby designates the Agreement for purposes Section 54D(a)(3) of the Code as a *"qualified energy conservation bond"* within the meaning of Section 54D(a) of the Code. The County hereby further irrevocably elects to have Section 6431(f) of the Code apply to the Agreement.

Section 5. Ratification of Findings. The Board of Supervisors of the County hereby ratifies its finding and determination made at a public hearing held in accordance with the provisions of Section 4217.13 of the California Government Code that the funds for the repayment of the financing of the Energy Conservation Equipment to be financed by the Agreement are projected to be available from revenues resulting from funding that otherwise would have been used for the purchase of electrical, thermal or other energy required by the County in the absence of such Energy Conservation Equipment. This finding and determination is made in complete satisfaction of the requirements of said Section 4217.13.

Section 6. Other Actions Authorized. The officers and employees of the County shall take all action necessary or reasonably required by the parties to the Financing Agreements to carry out, give effect to and consummate the transactions contemplated thereby (including the execution and delivery of Disbursement Requests, Final Acceptance Certificate and any tax certificate and agreement, as contemplated in the Agreement) and to take all action necessary in conformity therewith, including, without limitation, the execution and delivery of any closing and other documents required to be delivered in connection with any of the Financing Agreements.

Section 7. Appointment of Authorized Lessee Representatives. The Treasurer and Tax Collector of the County of Los Angeles is hereby designated to act as authorized representative of the County for purposes of the Agreement and the Acquisition Fund Agreement until such time as the Board of Supervisors of the County of Los Angeles shall designate any other or different authorized representative for purposes of the Agreement and the Acquisition Fund Agreement.

Section 8. Severability. If any section, paragraph, clause or provision of this Resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section, paragraph, clause or provision shall not affect any of the remaining provisions of this Resolution.

Section 9. Effective Date. This Resolution shall be effective immediately upon its passage.

The foregoing Resolution was, on the 23rd day of August, 2011, adopted by the Board of Supervisors of the County of Los Angeles and *ex officio* the governing body of all other special assessment and taxing districts, agencies and authorities for which said Board so acts.

Sachi A. Hamai,
Executive Officer-Clerk of the Board of
Supervisors of the County of Los Angeles

By: _____
Deputy

APPROVED AS TO FORM:

ANDREA SHERIDAN ORDIN
COUNTY COUNSEL

By: _____
Cammy C. DuPont
Principal Deputy County Counsel

August 23, 2011

ATTACHMENT E

HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147

FORM OF TAXABLE QECB
EQUIPMENT LEASE/PURCHASE AGREEMENT (DIRECT SUBSIDY)

TAXABLE QECB
EQUIPMENT LEASE/PURCHASE AGREEMENT (DIRECT SUBSIDY)

This Taxable QECB Lease/Purchase Agreement (Direct Subsidy) dated as of _____, 2011 (this *"Agreement"*), entered into by and between Banc of America Leasing & Capital, LLC, a Delaware limited liability company (*"Lessor"*), and the County of Los Angeles, a political subdivision of the State of California (*"Lessee"*),

WITNESSETH:

WHEREAS, Lessee desires to lease, purchase and acquire from Lessor certain Energy Conservation Equipment (as such term is defined herein), subject to the terms and conditions hereof; and

WHEREAS, Lessee is authorized and empowered under Article III, Section 10 of the Los Angeles County Charter and applicable provisions of California law, including (without limitation) Sections 23004(c) and 23004(d) of the California Government Code, to lease, purchase, acquire and install the Energy Conservation Equipment on County-owned land as herein provided;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and in consideration of the premises hereinafter contained, the parties hereby agree as follows:

ARTICLE I

Section 1.01. Definitions. The following terms will have the meanings indicated below unless the context clearly requires otherwise:

"Acceptance Date" means, with respect to the items of Energy Conservation Equipment identified in a Disbursement Request, the date that Lessee identifies to Lessor and the Acquisition Fund Custodian and certifies as the date on which Equipment Acceptance with respect to such items of Energy Conservation Equipment has occurred and for which disbursement from the Acquisition Fund is then requested in accordance with such Disbursement Request pursuant to the Acquisition Fund Agreement.

"Acquisition Amount" means $_____. The Acquisition Amount is the amount represented by Lessee to be sufficient, together with other funds of Lessee (if any) that are legally available for the purpose, to acquire and install the Energy Conservation Equipment and to pay Delivery Costs.

"Acquisition Fund" means the fund established and held by the Acquisition Fund Custodian pursuant to the Acquisition Fund Agreement.

"Acquisition Fund Agreement" means the Acquisition Fund and Account Control Agreement in form and substance acceptable to and executed by Lessee, Lessor and the

Acquisition Fund Custodian, pursuant to which an Acquisition Fund and a Delivery Costs Fund are established and administered.

"Acquisition Fund Custodian" means the Acquisition Fund Custodian identified in the Acquisition Fund Agreement, and its successors and assigns.

"Acquisition Period" means the period ending five (5) business days prior to [June 1], 2012.

"Agreement" means this Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy), including the exhibits hereto, together with any amendments and modifications to this Agreement pursuant to Section 13.04.

"Available Project Proceeds" means (a) the proceeds from the sale of this Agreement, *less* (b) Delivery Costs (not exceeding 2% of the proceeds of such sale) *plus* (c) investment earnings on the amount representing the difference between (a) *minus* (b).

"Code" means the Internal Revenue Code of 1986, as amended. Each reference to a Section of the Code herein shall be deemed to include the United States Treasury Regulations and Internal Revenue Service Notices dealing with Sections 54A, 54D and 6431 of the Code, including Internal Revenue Service Notice 2010-35.

"Contract Rate" means the rate identified as such in the Payment Schedule.

"Default Rate" means a rate of interest equal to the lesser of (a) the sum of the Contract Rate *plus* 3% or (b) the maximum rate permitted by law.

"Delivery Costs" means the costs incurred in connection with the execution and delivery of this Agreement, including placement agent/solar consultant fee, counsel fees, fees and expenses of the Acquisition Fund Custodian and similar costs, fees and expenses.

"Disbursement Request" means, with respect to the items of Energy Conservation Equipment therein identified, a Disbursement Request substantially in the form attached as Schedule 1 to the Acquisition Fund Agreement.

"Energy Conservation Equipment" means (a) the property listed in the Equipment Schedule; (b) any other property that is acquired and installed with Available Project Proceeds pursuant to Section 4.06(a); and (c) all replacements, repairs, restorations, modifications and improvements to any of the property described in the foregoing clause (a) or (b) that is made pursuant to Section 8.01 or Article V. Whenever reference is made in this Agreement to Energy Conservation Equipment, such reference shall be deemed to include all such replacements, repairs, restorations, modifications and improvements of or to such Equipment.

"Equipment Acceptance" means, with respect to each portion of the Energy Conservation Equipment that may operate for its intended purpose as a separate and independent functional unit, that the Energy Conservation Equipment constituting such portion has been acquired and

installed by the Vendor, is operating in a manner consistent with the manufacturer's intended use and has been inspected and finally accepted by Lessee for all purposes of this Agreement.

"Equipment Costs" means the total cost of the Energy Conservation Equipment, including related costs such as freight, installation and taxes and other capitalizable costs incurred in connection with the acquisition, installation and/or financing of the Energy Conservation Equipment.

"Equipment Schedule" means the equipment schedule attached hereto as Exhibit A and made a part hereof.

"Event of Default" means an Event of Default described in Section 12.01.

"Expenditure Period" means the "expenditure period" defined in Section 54A(d)(2)(B)(ii) of the Code and consists of the period beginning on the Funding Date and ending on the later of the date three years after the Funding Date or such later date, if any, as permitted by the Secretary of the Treasury in response to a request to extend the Expenditure Period.

"Funding Date" means _____, 2011, which is the date on which the Acquisition Amount is deposited with the Acquisition Fund Custodian in accordance with Section 3.04(c).

"Lease Term" means the period that begins on the Funding Date and ends on the first business day after the last scheduled Rental Payment Date, subject to extension as provided in Sections 3.03 and 4.01(b); *provided* that in no event shall any such extension result in the Lease Term exceeding the lesser of two additional years or the maximum term established by the Secretary of the Treasury that is applicable to this Agreement.

"Lessee" means the entity referred to as Lessee in the first paragraph of this Agreement.

"Lessor" means (a) the entity referred to as Lessor in the first paragraph of this Agreement or (b) any assignee or transferee of any right, title or interest of Lessor in and to this Agreement pursuant to Section 11.01 hereof, including the right, title and interest of Lessor in and to the Energy Conservation Equipment, the Rental Payments and other amounts due hereunder and the Acquisition Fund and the Delivery Costs Fund, but does not include any entity solely by reason of that entity retaining or assuming any obligation of Lessor to perform hereunder.

"Material Adverse Change" means a downgrade of two or more sub-grades on any of Lessee's publicly available long-term general obligation bond ratings or any of Lessee's other long-term general fund related bond ratings by either Moody's Investors Service, Inc. or Standard & Poor's Ratings Group or, if neither such rating agency publishes such ratings at the date of determination, any other nationally recognized statistical rating organization that is selected by Lessee for purposes of such long-term general obligation bond ratings and long-term general fund related bond ratings.

"Payment Schedule" means the Rental Payments Schedule attached hereto as Exhibit B and made a part hereof.

"Prepayment Price" means the amount that Lessee shall pay to Lessor to prepay its obligations under this Agreement as provided in Section 10.01.

"Principal Component" means, as of any date of calculation, the aggregate principal amount of the Rental Payments then unpaid, which equals $_____ as of the Funding Date.

"Qualified Energy Conservation Project" means the cost of acquiring and installing the qualified energy conservation project that qualifies as a *"qualified conservation purpose"* under Section 54D(f) of the Code, and has been approved for financing pursuant to notifications to Lessee from the California Debt Limit Allocation Committee dated _____.

"Rental Payment Commencement Date" means the date on which all of the Energy Conservation Equipment is substantially available for Lessee's beneficial use and enjoyment or _____, 2012, whichever is later, which is the date Lessee becomes obligated to commence payment of Rental Payments in accordance with the Payment Schedule pursuant to Section 4.01(a) hereof.

"Rental Payment Date" means each _____ and _____, commencing on the first _____ or _____, as applicable, that occurs on or after the Rental Payment Commencement Date, on which Lessee is required to make a Rental Payment under the Agreement as specified in the Payment Schedule.

"Rental Payments" means the basic rental payments payable by Lessee pursuant to the Agreement on the Rental Payment Dates and in the amounts as specified in the Payment Schedule, consisting of a principal component and an interest component, sufficient to repay the Principal Component and interest thereon at the Contract Rate.

"State" means the State of California.

"Vendor" means the manufacturer, installer or supplier of the Energy Conservation Equipment or any other person as well as the agents or dealers of the manufacturer, installer or supplier with whom Lessor arranged Lessee's acquisition, installation, maintenance and/or servicing of the Energy Conservation Equipment.

"Vendor Agreement" means any contract entered into by Lessee and any Vendor for the acquisition, installation, maintenance and/or servicing of the Energy Conservation Equipment.

"Vendor Payment Date" means the date on which a Vendor or Lessee (in the case of reimbursement) receives payment from amounts disbursed pursuant to the Acquisition Fund Agreement.

ARTICLE II

Section 2.01. Representations and Covenants of Lessee. Lessee represents, covenants and warrants for the benefit of Lessor on the date hereof as follows:

(a) Lessee is a political subdivision of the State, with full power and authority to enter into this Agreement and the Acquisition Fund Agreement and the transactions contemplated hereby and thereby and to perform all of its obligations hereunder and thereunder.

(b) Lessee has duly authorized the execution and delivery of this Agreement and the Acquisition Fund Agreement by proper action of its Board of Supervisors at a meeting duly called, regularly convened and attended throughout by the requisite quorum of the members thereof, or by other appropriate official approval, and all requirements have been met and procedures have occurred in order to ensure the validity and enforceability of this Agreement and the Acquisition Fund Agreement.

(c) No event or condition that constitutes, or with the giving of notice or the lapse of time or both would constitute, an Event of Default exists at the date hereof.

(d) Lessee will do or cause to be done all things necessary to preserve and keep in full force and effect its existence as a county and political subdivision of the State.

(e) Lessee has complied or will comply with such public bidding requirements as may be applicable to this Agreement and the acquisition by Lessee of the Energy Conservation Equipment.

(f) During the Lease Term, the Energy Conservation Equipment will be used by Lessee only for the purpose of performing essential governmental or proprietary functions of Lessee consistent with the permissible scope of Lessee's authority.

(g) Lessee has kept, and throughout the Lease Term shall keep, its books and records in accordance with generally accepted accounting principles and practices consistently applied, and shall make available to Lessor (i) annual audited financial statements (including (1) a balance sheet, (2) statement of revenues, expenses and changes in fund balances for budget and actual, (3) statement of cash flows, and (4) footnotes, schedules and attachments to the financial statements) within 240 days of its fiscal year end, (ii) such other financial statements and information as Lessor may reasonably request, and (iii) upon Lessor's request, its annual proposed budget for the following fiscal year no later than 30 days prior to its then current fiscal year end and its annual final budget for the following fiscal year within 30 days after its approval. The financial statements described in this subsection (g) shall be accompanied by an unqualified opinion of Lessee's auditor. Credit information relating to Lessee may be disseminated among Lessor and any of its affiliates and any of their respective successors and assigns.

(h) Lessee has a need for the Energy Conservation Equipment and expects to make immediate use of the Energy Conservation Equipment upon its installation. Lessee's need for the Energy Conservation Equipment is not temporary and Lessee does not expect the need for any item of the Energy Conservation Equipment to diminish during the Lease Term.

(i) To the best knowledge of Lessee, there is no pending litigation, tax claim, proceeding or dispute that may materially adversely affect Lessee's financial condition or impairs its ability to perform its obligations under this Agreement or the Acquisition Fund Agreement. Lessee will, at its expense, maintain its legal existence and do any further act and execute, acknowledge, deliver, file, register and record any further documents Lessor may reasonably request in order to protect Lessor's first priority security interest in the Energy Conservation Equipment, the Acquisition Fund and the Delivery Costs Fund and Lessor's rights and benefits under this Agreement and the Acquisition Fund Agreement.

(j) Lessee is the fee owner of the real estate where the Energy Conservation Equipment is and will be located and has good and marketable title thereto, and there exists no mortgage, pledge, lien, security interest, charge or other encumbrance of any nature whatsoever on or with respect to such real estate, except _____.

(k) Lessee has received allocation of a portion of the national qualified energy conservation bond limitation in the aggregate amount of $39,017,976.83 (of which $[14,000,000] will be designated to this Agreement) and documentation with respect to such allocation has been provided for inclusion in the transcript for this Agreement.

(l) No lease, rental agreement, lease-purchase agreement, payment agreement or contract for purchase to which Lessee has been a party at any time has been terminated by Lessee as a result of insufficient funds being appropriated in any fiscal year. No payment default has occurred under any debt, revenue bond or obligation which Lessee has issued during the past ten (10) years, and no non-payment default of a material nature has occurred during the past ten (10) years.

ARTICLE III

Section 3.01. Lease of Energy Conservation Equipment. Subject to the terms of this Agreement, Lessor agrees to provide the Acquisition Amount to acquire and install the Energy Conservation Equipment and pay the Delivery Costs. Lessor hereby demises, leases, transfers and lets to Lessee, and Lessee hereby acquires, rents and leases from Lessor, the Energy Conservation Equipment for the Lease Term.

Section 3.02. Continuation of Lease Term. Lessee intends, subject to Section 3.03, to continue the Lease Term and to pay the Rental Payments under this Agreement. Lessee affirms that sufficient funds are available for its current fiscal year to pay any Rental Payments when due during the current fiscal year, and Lessee reasonably believes that an amount sufficient to make

all Rental Payments during the entire Lease Term can be obtained from legally available funds of Lessee.

Section 3.03. Abatement. During any period in which, by reason of material damage or destruction or taking under the power of eminent domain (or sale to any entity threatening the use of such power) or material title defect with respect to any Energy Conservation Equipment, there is substantial interference with the beneficial use and enjoyment by Lessee of such Energy Conservation Equipment, the Rental Payments due under this Agreement shall be abated in the same proportion (including in whole) that the portion of such Energy Conservation Equipment that is unavailable for Lessee's beneficial use and enjoyment bears to all of the Energy Conservation Equipment. Lessee shall immediately notify Lessor upon the occurrence of any event causing substantial interference with Lessee's beneficial use and enjoyment of any Energy Conservation Equipment and the portion of the Energy Conservation Equipment that is so unavailable, and such notice shall be provided prior to the abatement of any Rental Payments under this Agreement. The amount of Rental Payments abated under this Agreement shall be such that the remaining Rental Payment obligation for each rental period represents fair consideration for the beneficial use and enjoyment of the portions of the Energy Conservation Equipment that are not affected by such interference. Such abatement shall commence on the date that Lessee's beneficial use and enjoyment of the affected Energy Conservation Equipment is restricted because of such interference and end on the earlier of (i) the date on which the beneficial use and enjoyment thereof are restored to Lessee, or (ii) the date on which Lessee either (x) replaces the affected Energy Conservation Equipment, (y) uses the proceeds of insurance or condemnation award to pay the applicable Prepayment Price therefor or (z) elects to pay the applicable Prepayment Price for the affected Energy Conservation Equipment pursuant to Section 10.01(b) if no insurance proceeds or condemnation award are available for purposes of the foregoing clause (y); *provided, however,* that the provisions of this Agreement, including (but not limited to) dates on which Rental Payments are due, shall be extended for a period equal to the shorter of the period the obligation to make Rental Payments was abated or two years; and *provided further, however,* that in no event shall any such extension result in the Lease Term exceeding the lesser of two years or the maximum term established by the Secretary of the Treasury that is applicable to the Agreement. Notwithstanding any such interference with Lessee's beneficial use and enjoyment of a portion of the Energy Conservation Equipment, this Agreement shall continue in full force and effect with respect to any remaining Energy Conservation Equipment.

Section 3.04. Conditions to Lessor's Performance. (a) As a prerequisite to the performance by Lessor of any of its obligations under this Agreement, Lessee shall deliver to Lessor the following:

(i) An Acquisition Fund Agreement in the form set forth in Exhibit H hereto, satisfactory to Lessor and executed by Lessee and the Acquisition Fund Custodian;

(ii) A certified copy of a resolution of Lessee's Board of Supervisors, in form and substance acceptable to Lessee and Lessor, authorizing the execution and delivery of this Agreement and the Acquisition Fund Agreement and performance by Lessee of its obligations under this Agreement and the Acquisition Fund Agreement;

(iii) A Certificate executed by the Executive Officer-Clerk of the Board of Supervisors of the County of Los Angeles or such officer's Deputy, in substantially the form attached hereto as Exhibit C, completed to the satisfaction of Lessor;

(iv) An opinion of counsel to Lessee in substantially the form attached hereto as Exhibit D and otherwise satisfactory to Lessor;

(v) Evidence of insurance as required by Section 7.02 hereof;

(vi) All documents, including financing statements, affidavits, notices and similar instruments, in form satisfactory to Lessor, which Lessor deems necessary or appropriate at that time pursuant to Section 6.02;

(vii) A copy of a fully completed and executed Form 8038-TC with respect to this Agreement in accordance with Section 4.05(g) hereof;

(viii) A certified copy of any Surety Bond satisfying the conditions set forth in Section 7.04; *provided, however,* that such delivery shall not be a condition precedent to Lessor's performance hereunder so long as any such Surety Bonds that satisfy the conditions under Section 7.04 are provided to Lessor prior to delivery of a Disbursement Request pursuant to the Acquisition Fund Agreement for Lessor's approval as therein provided; and

(ix) Such other items reasonably required by Lessor.

(b) In addition, the performance by Lessor of any of its obligations under this Agreement and the Acquisition Fund Agreement shall be subject to no Event of Default having occurred and be continuing since the Funding Date; *provided, however,* that nothing in this subsection (b) shall terminate Lessor's obligation under Section 5.02 with respect to the covenant of quiet enjoyment prior to the occurrence of an Event of Default.

(c) Subject to satisfaction of the foregoing, Lessor will deposit the Acquisition Amount with the Acquisition Fund Custodian for deposit into the Acquisition Fund and the Delivery Costs Fund as provided in the Acquisition Fund Agreement.

ARTICLE IV

Section 4.01. Rental Payments. (a) Lessee agrees, subject to Sections 3.03 and 4.01(b), to pay to Lessor beginning on the Rental Payment Commencement Date: (i) Rental Payments representing a principal component payable in the respective semiannual installments and on the respective Rental Payment Dates as indicated in the Payment Schedule under the column entitled *"Principal Component"* and (ii) Rental Payments representing an interest component in the respective semiannual installments and on the respective Rental Payment Dates as indicated in the Payment Schedule under the column entitled *"Interest Component."* To the extent that Lessee is not obligated pursuant to Section 4.01(b) to pay Rental Payments that are scheduled to be paid prior to the Rental Payment Commencement Date because less than all of the Energy

Conservation Equipment is substantially available and accepted for Lessee's use and enjoyment, Lessee agrees to pay to Lessor the amount by which such Rental Payments would be reduced as provided in Section 4.01(b) solely from moneys then in Lessee's general fund that are legally available and duly appropriated by Lessee's Board of Supervisors at its discretion, and not at its obligation, for such purpose. The failure or unwillingness (for whatever reason) of Lessee's Board of Supervisors to appropriate moneys to pay Rental Payments that would otherwise be reduced pursuant to Section 4.01(b) shall not constitute a default on the part of Lessee or change Lessee's obligation to pay the balance of Rental Payments in accordance with this Section 4.01(a).

(b) Lessee shall become obligated to pay Rental Payments (including to the extent allocable to Delivery Costs) as and to the extent that Energy Conservation Equipment is made available for Lessee's beneficial use and enjoyment and is accepted by Lessee for its beneficial use and enjoyment; *provided, however,* that nothing in this subsection (b) is intended, or shall be construed, to require Lessee to pay Rental Payments prior to _____, 2012. In the event that less than all of the Energy Conservation Equipment is made available for Lessee's beneficial use and enjoyment by _____, 2012 and Lessee accepts such portion of the Energy Conservation Equipment for its beneficial use and enjoyment prior to _____, 2012, any Rental Payments that are scheduled to be paid by Lessee pursuant to the Payment Schedule that relate to the period that is prior to the Rental Payment Commencement Date (and during which Lessee has beneficial use and enjoyment of less than all of the Energy Conservation Equipment) shall be prorated by Lessor for the period from _____, 2012 to the Rental Payment Commencement Date based upon a fraction the numerator of which equals the amount disbursed from the Acquisition Fund to pay the Equipment Costs for the Energy Conservation Equipment for which the Acceptance Date has occurred plus the portion of Delivery Costs allocable thereto and the denominator of which equals the total amount deposited into the Acquisition Fund and the Delivery Costs Fund on the Funding Date. The provisions of this Agreement shall be extended for a period equal to the shorter of the period during which Rental Payments are prorated or two years and the amount by which Rental Payments had been reduced on each scheduled Rental Payment Date prior to the Rental Payment Commencement Date shall be payable in such amounts on the same dates during the extension period as Rental Payments are due, unless such period during which Rental Payments are prorated is less than one year in which case the amount by which Rental Payments had been reduced shall be payable on the last Business Day of such period; *provided, however,* that in no event shall any such extension result in the Lease Term exceeding the lesser of two additional years or the maximum term established by the Secretary of the Treasury that is applicable to this Agreement, and in no event shall the amount of Rental Payments during any extension period exceed the highest Rental Payment shown on the Payment Schedule.

(c) Lessee covenants and agrees to include in the budget submitted to its Board of Supervisors for the fiscal year beginning July 1, 2012, prepared by the _____ acting on behalf of Lessee in accordance with applicable law, the amount necessary (after taking into account any moneys then legally available for such purpose) to pay the amount by which Rental Payments that are scheduled to be paid prior to the Rental Payment Commencement Date are expected to be reduced as provided in Section 4.01(b). The parties acknowledge that Lessee's Board of Supervisors will be under no obligation to adopt a budget or otherwise appropriate moneys to pay such amount.

(d) Subject to Sections 3.03 and 4.01(b), Lessee shall promptly pay Rental Payments from and after the Rental Payment Commencement Date, in lawful money of the United States of America, on the Rental Payment Dates and in such amounts as provided in the Payment Schedule, to Lessor by wire transfer in immediately available funds in accordance with wire payment instructions provided by Lessor to Lessee in writing or to such other place or in such other manner as may be designated by Lessor in writing to Lessee.

(e) Interest on the Acquisition Amount shall begin to accrue as of the Funding Date. Lessee shall pay Lessor a charge on any Rental Payment not paid on the date such payment is due at a rate equal to the Default Rate from such date to the date paid.

Section 4.02. Interest and Principal Components. A portion of each Rental Payment is paid as, and represents payment of, interest, and the balance of each Rental Payment is paid as, and represents payment of, principal as more fully detailed on the Payment Schedule.

Section 4.03. Rental Payments to Constitute a Current Expense of Lessee. The Rental Payment payable on a particular Rental Payment Date shall be for the period from the immediately preceding Rental Payment Date (or the respective Acceptance Dates in the case of the first Rental Payment Date) to such particular Rental Payment Date. For each fiscal year or portion thereof during the Lease Term, Rental Payments and other amounts payable under this Agreement shall constitute the total rentals for such fiscal year or portion thereof and shall be paid by Lessee for and in consideration of the right of use and possession, and the continued quiet use and enjoyment, of the Energy Conservation Equipment by Lessee for and during such fiscal year or portion thereof. Lessor and Lessee have agreed and determined that such rentals are not in excess of the fair rental value of the Energy Conservation Equipment. In making such determination, consideration has been given to the costs of acquiring and installing the Energy Conservation Equipment, the uses and purposes served by the Energy Conservation Equipment and the benefits therefrom that will accrue to Lessee by reason of this Agreement and to the general public by reason of Lessee's use of the Energy Conservation Equipment hereunder. Lessor and Lessee understand and intend that the obligation of Lessee to pay Rental Payments and other amounts payable under this Agreement shall constitute a current expense of Lessee payable solely from its general fund or other funds that are legally available for that purpose and shall not in any way be construed to be a debt of Lessee in contravention of any applicable constitutional or statutory limitation or requirement concerning the creation of indebtedness by Lessee, nor shall anything contained herein constitute a pledge of the general tax revenues, funds or moneys of Lessee.

Section 4.04. Rental Payments to be Unconditional. Except as provided in Sections 3.03 and 4.01(b), the obligations of Lessee to make Rental Payments and to perform and observe the other covenants and agreements contained in this Agreement shall be absolute and unconditional in all events without abatement, diminution, deduction, set-off or defense, for any reason, including without limitation any failure of the Energy Conservation Equipment, any defects, malfunctions, breakdowns or infirmities in the Energy Conservation Equipment, disputes with the Vendor of any Energy Conservation Equipment or Lessor, failure of the Vendor under any Vendor Agreement to perform any of its obligations thereunder for whatever reason, including bankruptcy, insolvency, reorganization or any similar event with respect to the Vendor under any

Vendor Agreement, the failure or inability (for whatever reason) of Lessee to receive (or delay in receipt of) all or any portion of the direct cash subsidy payment with respect to this Agreement as provided in Sections 4.05(f) and 4.05(i) hereof or any accident, condemnation or unforeseen circumstances.

Section 4.05. Tax Covenants. At all times during the Lease Term, Lessee shall comply with the following covenants as required to ensure that this Agreement constitutes a *"qualified energy conservation bond"* under and as defined in Sections 54A(d)(1)(C) and 54D of the Code:

(a) *Status as Local Government.* Lessee shall maintain its status as a local government as required by Section 54D(a)(2) of the Code.

(b) *Qualified Energy Conservation Project Requirement; Capital Expenditures.* One hundred percent (100%) of the Available Project Proceeds will be used for a Qualified Energy Conservation Project, as required by Section 54D(f) of the Code. Lessee shall design, acquire, install and operate the Energy Conservation Equipment in such a manner that the Energy Conservation Equipment will be a Qualified Energy Conservation Project.

(c) *Three Year Expenditure of Available Project Proceeds.* Lessee reasonably expects to expend 100% of the Available Project Proceeds on a Qualified Energy Conservation Project within the Expenditure Period. To the extent that less than 100% of the Available Project Proceeds are expended for a Qualified Energy Conservation Project by the end of the Expenditure Period, all nonqualified bonds (as determined under Section 142 of the Code) shall be prepaid within 90 days after the end of the Expenditure Period, all in accordance with the requirements of Section 54A(d)(2)(B) of the Code in the time and manner prescribed by the Code and as provided in Section 4.06 hereof.

(d) *Arbitrage Rebate.* Lessee will take any and all actions necessary to assure compliance with Section 148(f) of the Code, as modified by Section 54A(d)(4) of the Code, relating to the rebate of excess investment earnings, if any, to the federal government, to the extent that such Section is applicable to this Agreement.

(e) *No Arbitrage.* Lessee will not take, or permit or suffer to be taken, any action with respect to the proceeds of this Agreement which, if such action had been reasonably expected to have been taken, or had been deliberately and intentionally taken, on the Funding Date would have caused this Agreement to be an "arbitrage bond" within the meaning of Section 148(a) of the Code, as modified by Section 54A(d)(4) of the Code.

(f) *I.R.S. Form 8038-CP.* Lessee acknowledges that, to receive certain payments with respect to this Agreement under Section 6431 of the Code, it must, among other requirements, periodically file appropriate returns, now designated Form 8038-CP, *Return for Credit Payments to Issuers of Qualified Bonds,* in accordance with the instructions to such return.

(g) *I.R.S. Information Reporting Return Form 8038-TC.* Lessee shall file or cause to be filed I.R.S. Form 8038-TC (and all other required information reporting returns) in a timely manner.

(h) *Designation.* Lessee designates this Agreement for purposes of Section 54D(a)(3) of the Code as a *"qualified energy conservation bond"* within the meaning of Section 54D(a) of the Code.

(i) *"Qualified Bond" Election with respect to this Agreement.* Lessee hereby irrevocably elects to have Section 6431(f) of the Code apply to this Agreement. Lessee hereby acknowledges that as a consequence of this election, Lessor (including its successors and assigns) will not be entitled to a tax credit as a result of ownership of this Agreement.

(j) *Binding Commitment to Spend Available Project Proceeds.* Lessee has entered into a binding commitment with a third party to spend at least 10% of the Available Project Proceeds with respect to *"qualified conservation purposes"* within the meaning of Section 54D(a)(1) of the Code.

(k) *Limitation on Delivery Costs.* No proceeds of this Agreement and investment earnings thereon, in an amount in excess of 2% of the proceeds of the sale of this Agreement, will be used to pay Delivery Costs. If the fees of Lessor are retained upon origination of this Agreement as a discount on the purchase of this Agreement, such retention shall be deemed to be an expenditure of proceeds for said fees.

(l) *Allocation of Qualified Energy Conservation Bond Limitation.* Lessee has received an allocation of a portion of the national qualified energy conservation bond limitation in the aggregate amount of $39,017,976.83 (of which $[14,000,000] will be designated to this Agreement). The maximum aggregate Principal Component of this Agreement designated as a *"qualified energy conservation bond"* under subsection (h) of this Section 4.05 for purposes of Section 54D(a)(3) of the Code does not exceed the amount of the national qualified energy conservation bond limitation allocated to Lessee under Section 54D(e) of the Code for calendar year 2010.

(m) *Limitation on Replacement Funds.* No fund or moneys are pledged to, or are reasonably expected to be used directly or indirectly to pay, Rental Payments or are reserved or otherwise set aside such that there is a reasonable assurance that such amounts will be available to pay Rental Payments will be funded with respect to the Agreement.

(n) *Davis-Bacon Act Compliance.* Lessee shall comply with the requirements of Title 40, Subtitle II, Part A, Chapter 31, Subchapter IV of the United States Code in connection with the acquisition and installation of the Energy Conservation Equipment.

(o) *No Private Activity.* Lessee shall assure that the Acquisition Amount and the Energy Conservation Equipment are not used in a manner that would cause this

Agreement to satisfy the private business tests of Section 141(b) of the Code or the private loan financing test of Section 141(c) of the Code.

(p) *Compliance with Conflicts of Interest Laws.* Lessee shall comply with all State and local law requirements governing conflicts of interest as such requirements may relate, directly or indirectly, to this Agreement. Lessee hereby covenants and agrees to comply with any conflict of interest rules prescribed by the Internal Revenue Service or United States Department of Treasury governing the appropriate Member of Congress and federal, State and local officials and their spouses as such rules may apply to this Agreement.

Section 4.06. Payment of Equipment Costs from Acquisition Fund; Mandatory Prepayment from Unspent Acquisition Fund Moneys. (a) Amounts on deposit in the Acquisition Fund may be expended for the payment of Equipment Costs for the Qualified Energy Conservation Project in accordance with the Acquisition Fund Agreement (subject to the last sentence of this subsection (a) below) to and including the earlier of (i) the expiration of the Acquisition Period, (ii) the date on which Lessee executes and delivers to Lessor the Final Acceptance Certificate pursuant to Section 5.01(a) hereof or (iii) the 90th day following the later of _____, 2014 or, if Lessee has obtained an extension for the expenditure of amounts in such Fund in accordance with Section 54A(d)(2) of the Code, the close of such extended period. All amounts remaining on deposit in the Acquisition Fund (herein referred to as the *"Excess Amount"*) as of the earlier of such dates shall be applied by the Acquisition Fund Custodian as provided in the Acquisition Fund Agreement to prepay Rental Payments in whole or in part on a pro rata basis of the amount due on each Rental Payment Date; *provided, however,* that the Excess Amount shall not be applied to such prepayment but shall be applied to the payment of Equipment Costs for equipment and other personal property (other than the Equipment originally described on the Equipment Schedule) that constitutes a Qualified Energy Conservation Project so long as (A) Lessee has provided written notice to Lessor at least fifteen days prior to the earlier of the dates described in clauses (i) and (ii) above stating its intention to apply the Excess Amount to payment of Equipment Costs for such other Equipment in lieu of prepayment as herein provided and identifies such other Equipment to Lessor in reasonable detail; (B) to the extent Lessee desires in its sole discretion, Lessee has obtained an opinion of special tax counsel acceptable to Lessee to the effect that the use of the Excess Amount for such purpose will not adversely affect treatment of this Agreement as a *"qualified energy conservation bond"* under and as defined in Sections 54A(d)(1)(C) and 54D of the Code; (C) Lessee has obtained Lessor's prior written consent to the use of the Excess Amount for such purpose; and (D) such actions have been taken as Lessor may direct to assure that such other Equipment, the Equipment Costs of which are to be paid from the Excess Amount, is subject to the security interest granted by Lessee in Equipment as provided in Section 6.02. Notwithstanding the foregoing *proviso,* in the event that any Excess Amount remains on deposit in the Acquisition Fund on the date described in clause (iii) above, such Excess Amount shall be applied on such date to prepayment of Rental Payments in whole or in part as provided in this Section 4.06. The prepayment price with respect to any such prepayment in an amount of $250,000 or less shall be equal to 100%, and in an amount in excess of $250,000 shall be equal to [103]%, of the principal portion of the Rental Payments to be prepaid plus accrued interest on such prepaid principal portion to the prepayment date. Notwithstanding anything in this Agreement to the contrary, an amount may not be

disbursed from the Acquisition Fund to pay Equipment Costs relating to a portion of the Energy Conservation Equipment prior to the date on which Lessee has certified in the related Disbursement Request that the Acceptance Date has occurred with respect to such portion of Energy Conservation Equipment for which funds are requested for disbursement from the Acquisition Fund pursuant to the Acquisition Fund Agreement.

Lessee hereby acknowledges and agrees that prior to Equipment Acceptance any demands for payment of related Equipment Costs or any other amounts due to the Vendors shall be paid by Lessee from its own funds that are legally available for the purpose and not from funds held in the Acquisition Fund. Such funds so paid by the Lessee may be reimbursed as provided in this Agreement, subject to any limitations on any such reimbursement as otherwise provided in this Agreement.

(b) In connection with any prepayment pursuant to subsection (a) of this Section 4.06, Lessee shall pay the [prepayment premium and] interest portion of Rental Payments accrued to the prepayment date on such principal portion to be prepaid from funds (other than Available Project Funds) legally available to Lessee for that purpose, which at the discretion of Lessee's Board of Supervisors have been appropriated for that purpose.

(c) Lessee will give Lessor notice of any such prepayment in accordance with this Section 4.06 not less than 60 days in advance of the prepayment date.

Section 4.07. Covenant to Budget and Appropriate. Lessee hereby covenants to take such action as is necessary under the laws applicable to Lessee to budget for and appropriate and maintain funds sufficient and available to discharge its obligation to meet all Rental Payments and pay other amounts that are required to be paid under this Agreement in each of its fiscal years during the Lease Term.

The covenants on the part of Lessee herein contained shall be deemed to be and shall be construed to be ministerial duties imposed by law and it shall be the duty of each and every public official of Lessee to take such action and do such things as are required by law in the performance of the official duty of such officials to enable Lessee to carry out and perform the covenants and agreements in this Agreement agreed to be carried out and performed by Lessee.

ARTICLE V

Section 5.01. Delivery, Installation and Acceptance of Energy Conservation Equipment. (a) Lessee shall order the Energy Conservation Equipment, cause the Energy Conservation Equipment to be delivered and installed at the location or locations specified in the Equipment Schedule and pay any and all Equipment Costs and other delivery and installation costs in connection therewith. When items of Energy Conservation Equipment have been delivered and installed and are available for Lessee's beneficial use and enjoyment, Lessee shall promptly accept such Energy Conservation Equipment and evidence said acceptance by executing and delivering to Lessor a Disbursement Request as provided in the Acquisition Fund Agreement. Upon the occurrence of Equipment Acceptance for all of the Energy Conservation Equipment,

Lessee shall execute and deliver to Lessor a Final Acceptance Certificate in the form attached hereto as Exhibit E.

(b) Lessee shall deliver to Lessor original invoices (and proof of payment of such invoices if Lessee seeks reimbursement) relating to each item of Energy Conservation Equipment accepted by Lessee pursuant to the related Disbursement Request.

Section 5.02. Quiet Enjoyment of Energy Conservation Equipment. So long as Lessee is not in default hereunder, neither Lessor nor any entity claiming by, through or under Lessor, shall interfere with Lessee's quiet use and enjoyment of the Energy Conservation Equipment during the Lease Term.

Section 5.03. Location; Inspection. Once installed, no item of the Energy Conservation Equipment will be moved or relocated from the location specified for it in the Equipment Schedule without Lessor's prior written consent, which consent shall not be unreasonably withheld. Lessor shall have the right at all reasonable times during regular business hours to enter into and upon the property where the Energy Conservation Equipment is located for the purpose of inspecting the Energy Conservation Equipment.

Section 5.04. Use and Maintenance of the Energy Conservation Equipment. Lessee shall not install, use, operate or maintain the Energy Conservation Equipment (or cause the Energy Conservation Equipment to be installed, used, operated or maintained) improperly, carelessly, in violation of any applicable law or in a manner contrary to that contemplated hereby. Lessee shall provide all permits and licenses, if any, necessary for the installation and operation of the Energy Conservation Equipment. In addition, Lessee agrees to comply in all respects with all applicable laws, regulations and rulings of any legislative, executive, administrative or judicial body; *provided* that Lessee may contest in good faith the validity or application of any such law, regulation or ruling in any reasonable manner that does not, in the opinion of Lessor, adversely affect the interest of Lessor in and to the Energy Conservation Equipment or its interest or rights hereunder.

Lessee agrees that it will maintain, preserve and keep the Energy Conservation Equipment in good repair and working order, in a condition comparable to that recommended by the manufacturer. Lessor shall have no responsibility to maintain, repair or make improvements or additions to the Energy Conservation Equipment. In all cases during the Lease Term and prior to return of Energy Conservation Equipment to Lessor as provided in this Agreement, Lessee agrees to pay any costs necessary for the manufacturer to re-certify the Energy Conservation Equipment as eligible for manufacturer's maintenance upon the return of the Energy Conservation Equipment to Lessor as provided for herein.

Lessee shall not alter any item of Energy Conservation Equipment or install any accessory, equipment or device on an item of Energy Conservation Equipment if that would impair any applicable warranty, the originally intended function or the value of that Energy Conservation Equipment. All repairs, parts, accessories, equipment and devices furnished, affixed to or installed on any Energy Conservation Equipment, excluding temporary replacements, shall thereupon become subject to the security interest of Lessor.

ARTICLE VI

Section 6.01. Title to the Energy Conservation Equipment. During the Lease Term, and so long as Lessee is not in default under Article XII hereof, all right, title and interest in and to each item of the Equipment shall be vested in Lessee immediately upon its acceptance of each item of Equipment, subject to the terms and conditions of this Agreement. Lessee shall at all times protect and defend, at its own cost and expense, its title in and to the Equipment from and against all claims, liens and legal processes of its creditors, and keep all Equipment free and clear of all such claims, liens and processes. Upon payment of all amounts due and owing under this Agreement in accordance with Section 10.01 (including upon payment of all Rental Payments and other amounts payable under this Agreement), Lessor shall release its security interest in and to the Equipment under the Agreement, as is and where is, without warranty of any kind other than as to the absence of liens created by or through Lessor, and shall execute and deliver to Lessee such documents as Lessee may reasonably request to evidence the release of Lessor's security interest in the Equipment subject to this Agreement.

Section 6.02. Security Interest. As additional security for the payment and performance of all of Lessee's obligations hereunder, Lessee hereby grants to Lessor a first priority security interest constituting a first lien on (a) the Energy Conservation Equipment, (b) moneys and investments held from time to time in the Acquisition Fund and the Delivery Costs Fund and (c) any and all proceeds of any of the foregoing. Lessee authorizes Lessor to file (and Lessee agrees to execute, if applicable) such notices of assignment, chattel mortgages, financing statements and other documents, in form satisfactory to Lessor, which Lessor deems necessary or appropriate to establish and maintain Lessor's security interest in the Energy Conservation Equipment, the Acquisition Fund, the Delivery Costs Fund and the proceeds thereof, including such financing statements with respect to personal property and fixtures under Article 9 of the California Commercial Code and treating such Article 9 as applicable to entities such as Lessee.

Section 6.03. Personal Property, No Encumbrances. Lessee agrees that, as and to the extent permitted by law, the Energy Conservation Equipment is deemed to be and will remain personal property, and will not be deemed to be affixed to or a part of the real estate on which it may be situated, notwithstanding that the Energy Conservation Equipment or any part thereof may be or hereafter become in any manner physically affixed or attached to real estate or any building thereon. Lessee shall not create, incur, assume or permit to exist any mortgage, pledge, lien, security interest, charge or other encumbrance of any nature whatsoever on any of the real estate where the Energy Conservation Equipment is or will be located or enter into any agreement to sell or assign or enter into any sale/leaseback arrangement of such real estate without the prior written consent of Lessor; *provided,* that if Lessor or its assigns is furnished with a waiver of interest in the Energy Conservation Equipment acceptable to Lessor or its assigns in its discretion from any party taking an interest in any such real estate prior to such interest taking effect, such consent shall not be unreasonably withheld.

ARTICLE VII

Section 7.01. Liens, Taxes, Other Governmental Charges and Utility Charges. Lessee shall keep the Energy Conservation Equipment free of all levies, liens, and encumbrances except

those created by this Agreement. The parties to this Agreement contemplate that the Energy Conservation Equipment will be used for a governmental or proprietary purpose of Lessee and that the Energy Conservation Equipment will therefore be exempt from all property taxes. If the use, possession or acquisition of any Energy Conservation Equipment is nevertheless determined to be subject to taxation, Lessee shall pay when due all taxes and governmental charges lawfully assessed or levied against or with respect to such Equipment. Lessee shall pay all utility and other charges incurred in the use and maintenance of the Energy Conservation Equipment. Lessee shall pay such taxes or charges as the same may become due; *provided* that, with respect to any such taxes or charges that may lawfully be paid in installments over a period of years, Lessee shall be obligated to pay only such installments as accrue during the Lease Term. During the Lease Term, Lessor will not claim ownership of the Energy Conservation Equipment for the purposes of any tax credits, benefits or deductions with respect to the Energy Conservation Equipment.

Section 7.02. Insurance. Lessee shall during the Lease Term maintain or cause to be maintained (a) casualty insurance naming Lessor and its assigns as loss payee and additional insured and insuring the Energy Conservation Equipment against loss or damage by fire and all other risks covered by the standard extended coverage endorsement then in use in the State, and any other risks reasonably required by Lessor, in an amount at least equal to the greater of (i) the then applicable Prepayment Price of the Energy Conservation Equipment or (ii) the replacement cost of the Energy Conservation Equipment; (b) liability insurance naming Lessor and its assigns as additional insured that protects Lessor from liability with limits of at least $1,000,000 per occurrence/$3,000,000 in the aggregate for bodily injury and property damage coverage, and excess liability umbrella coverage of at least $5,000,000, and in all events in form and amount satisfactory to Lessor; (c) worker's compensation coverage as required by the laws of the State and (d) rental interruption insurance naming Lessor as loss payee, with coverage equal to the maximum total Rental Payments payable by Lessee under the Lease for any consecutive 24-month period and insuring against abatement of Rental Payments payable by Lessee resulting from Lessee's loss of beneficial use or enjoyment of the Energy Conservation Equipment or any substantial portion thereof and caused by any and all perils insured under the casualty insurance described in clause (a) above; *provided* that, with Lessor's prior written consent, Lessee may self-insure against the risks described in clauses (a), (b) and/or (c). In the event Lessee is permitted, at Lessor's sole discretion, to self-insure as provided in this Section, Lessee shall provide to Lessor a self-insurance letter in substantially the form attached hereto as Exhibit F. Lessee shall furnish to Lessor evidence of such insurance or self-insurance coverage throughout the Lease Term. Lessee shall not cancel or modify such insurance or self-insurance coverage in any way that would affect the interests of Lessor without first giving written notice thereof to Lessor at least 30 days in advance of such cancellation or modification.

Section 7.03. Risk of Loss. Whether or not covered by insurance or self-insurance, Lessee hereby assumes all risk of loss of, or damage to and liability related to injury or damage to any persons or property arising from the Energy Conservation Equipment from any cause whatsoever, and no such loss of or damage to or liability arising from the Energy Conservation Equipment shall relieve Lessee of the obligation to make the Rental Payments or to perform any other obligation under this Agreement, except as otherwise provided in Section 3.03. Whether or not covered by insurance or self-insurance, Lessee hereby agrees to reimburse Lessor (to the

fullest extent permitted by applicable law) and subject to appropriation of moneys sufficient for any and all liabilities, obligations, losses, costs, claims, taxes or damages suffered or incurred by Lessor, regardless of the cause thereof and all expenses incurred in connection therewith (including, without limitation, reasonable counsel fees and expenses, and penalties connected therewith imposed on interest received) arising out of or as a result of (a) entering into of this Agreement or any of the transactions contemplated hereby, (b) the ordering, acquisition, ownership use, operation, condition, purchase, delivery, acceptance, rejection, storage or return of any item of the Energy Conservation Equipment, (c) any accident in connection with the operation, use, condition, possession, storage or return of any item of the Energy Conservation Equipment resulting in damage to property or injury to or death to any person, and/or (d) the breach of any covenant of Lessee under or in connection with this Agreement or any material misrepresentation provided by Lessee under or in connection with this Agreement; *provided, however,* that any amount payable by Lessee pursuant to this Section 7.03 shall be payable solely from moneys appropriated for such purpose by Lessee's Board of Supervisors in its discretion, and failure to appropriate such moneys shall not constitute an Event of Default under this Agreement. The provisions of this paragraph shall continue in full force and effect notwithstanding the full payment of all obligations under this Agreement or the termination of the Lease Term for any reason.

Section 7.04. Surety Bonds; Lessee to Pursue Remedies Against Contractors and Sub-Contractors and Their Sureties. Lessee shall secure from each Vendor directly employed by Lessee in connection with the acquisition, construction, installation, improvement or equipping of the Energy Conservation Equipment, a payment and performance bond (*"Surety Bond"*) executed by a surety company authorized to do business in the State, having a financial strength rating by A.M. Best Company of "A-" or better, and otherwise satisfactory to Lessor and naming Lessor as a co-obligee in a sum equal to the entire amount to become payable under each Vendor Agreement. Each bond shall be conditioned on the completion of the work in accordance with the plans and specifications for the Energy Conservation Equipment and upon payment of all claims of subcontractors and suppliers. Lessee shall cause the surety company to add Lessor as a co-obligee on each Surety Bond, and shall deliver a certified copy of each Surety Bond to Lessor promptly upon receipt thereof by Lessee. Any proceeds from a Surety Bond shall be applied first to amounts due Lessor under this Agreement, and any remaining amounts shall be payable to Lessee.

In the event of a material default of any Vendor under any Vendor Agreement in connection with the acquisition, construction, maintenance and/or servicing of the Energy Conservation Equipment or in the event of a material breach of warranty with respect to any material workmanship or performance guaranty with respect to the Energy Conservation Equipment, Lessee will promptly proceed to exhaust its remedies against the Vendor in default. Lessee shall advise Lessor of the steps it intends to take in connection with any such default. Any amounts received by Lessee with respect to damages, refunds and adjustments or otherwise in connection with the foregoing shall be paid to Lessor and applied against Lessee's obligations hereunder.

Section 7.05. Advances. In the event Lessee shall fail to keep the Energy Conservation Equipment in good repair and working order or shall fail to maintain any insurance required by

Section 7.02 hereof, Lessor may, but shall be under no obligation to, maintain and repair the Energy Conservation Equipment or obtain and maintain any such insurance coverages, as the case may be, and pay the cost thereof. All amounts so advanced by Lessor shall constitute additional rent for the Lease Term, and Lessee covenants and agrees to pay such amounts so advanced by Lessor with interest thereon from the date advanced until paid at a rate equal to the Contract Rate plus 5% per annum or the maximum amount permitted by law, whichever is less; *provided, however,* that any amount payable by Lessee pursuant to this Section 7.05 shall be payable solely from moneys appropriated for such purpose by Lessee's Board of Supervisors in its discretion, and failure to appropriate such moneys shall not constitute an Event of Default under this Agreement.

ARTICLE VIII

Section 8.01. Damage, Destruction and Condemnation. If, prior to the termination of the Lease Term, (a) the Energy Conservation Equipment or any portion thereof is destroyed, in whole or in part, or is damaged by fire or other casualty or (b) title to, or the temporary use of, the Energy Conservation Equipment or any part thereof shall be taken under the exercise or threat of the power of eminent domain by any governmental body or by any person, firm or corporation acting pursuant to governmental authority, (i) Lessee and Lessor will cause the Net Proceeds of any insurance claim or condemnation award or sale under threat of condemnation to be applied to the prompt replacement, repair, restoration, modification or improvement of the Energy Conservation Equipment or such part thereof and any balance of the Net Proceeds remaining after such work has been completed shall be paid to Lessee or (ii) Lessee shall exercise its option to prepay in accordance with Section 10.01(b).

If Lessee elects to replace any item of the Energy Conservation Equipment (the *"Replaced Equipment"*) pursuant to this Section, the replacement equipment (the *"Replacement Equipment"*) shall be new or of a quality, type, utility and condition at least as good as the Replaced Equipment, shall be of equal or greater value than the Replaced Equipment and shall provide at least the same level of energy and/or operational savings expected in the aggregate from the Replaced Equipment prior to such casualty, destruction or condemnation. Lessee shall grant to Lessor a first priority security interest in any such Replacement Equipment. Lessee shall represent, warrant and covenant to Lessor that each item of Replacement Equipment is free and clear of all claims, liens, security interests and encumbrances, excepting only those liens created by or through Lessor, and shall provide to Lessor any and all documents as Lessor may reasonably request in connection with the replacement, including, but not limited to, documentation in form and substance satisfactory to Lessor evidencing Lessor's security interest in the Replacement Equipment. Lessor and Lessee hereby acknowledge and agree that any Replacement Equipment acquired pursuant to this paragraph shall constitute "Energy Conservation Equipment" for purposes of this Agreement. Lessee shall complete the documentation of Replacement Equipment on or before the next Rental Payment Date after the occurrence of a casualty event, or exercise its option to prepay in accordance with Section 10.01(b).

For purposes of this Article, the term *"Net Proceeds"* shall mean the amount remaining from the gross proceeds of any insurance claim or condemnation award or sale under threat of

condemnation after deducting all expenses, including attorneys' fees, incurred in the collection thereof.

Section 8.02. Insufficiency of Net Proceeds. If the Net Proceeds are insufficient to pay in full the cost of any repair, restoration, modification or improvement referred to in Section 8.01, Lessee shall either (a) complete such replacement, repair, restoration, modification or improvement and pay any costs thereof in excess of the amount of the Net Proceeds (to the fullest extent permitted by applicable law, but only from legally available funds), or (b) pay or cause to be paid to Lessor the amount of the then applicable Prepayment Price for the Energy Conservation Equipment, and, upon such payment, the Lease Term shall terminate and Lessor's security interest in the Energy Conservation Equipment shall terminate as provided in Section 6.01 hereof; *provided, however,* that any amount payable by Lessee pursuant to this Section 8.02 shall be payable solely from moneys appropriated for such purpose by Lessee's Board of Supervisors in its discretion, and failure to appropriate such moneys shall not constitute an Event of Default under this Agreement. The amount of the Net Proceeds, if any, remaining after completing such repair, restoration, modification or improvement or after purchasing such Equipment shall be retained by Lessee. If Lessee shall make any payments pursuant to this Section, Lessee shall not be entitled to any reimbursement therefor from Lessor nor shall Lessee be entitled to any diminution of the amounts payable under Article IV.

ARTICLE IX

Section 9.01. Disclaimer of Warranties. Lessor makes no warranty or representation, either express or implied, as to the value, design, condition, merchantability or fitness for particular purpose or fitness for use of the Energy Conservation Equipment, or any other warranty or representation, express or implied, with respect thereto and, as to Lessor, Lessee's acquisition of the Energy Conservation Equipment shall be on an "as is" basis. In no event shall Lessor be liable for any incidental, indirect, special or consequential damage in connection with or arising out of this Agreement, the Energy Conservation Equipment or the existence, furnishing, functioning or Lessee's use of any item, product or service provided for in this Agreement.

Section 9.02. Vendor's Agreements; Warranties. Lessee covenants that it shall not in any material respect amend, modify, rescind or alter any Vendor Agreement without the prior written consent of Lessor. Lessor hereby irrevocably appoints Lessee its agent and attorney-in-fact during the Lease Term, so long as Lessee shall not be in default under this Agreement, to assert from time to time whatever claims and rights (including without limitation warranties) relating to the Energy Conservation Equipment that Lessor may have against Vendor. Lessee's sole remedy for the breach of such warranty, indemnification or representation shall be against the applicable Vendors of the Energy Conservation Equipment, and not against Lessor. Any such matter shall not have any effect whatsoever on the rights and obligations of Lessor hereunder, including the right to receive full and timely Rental Payments. Lessee expressly acknowledges that Lessor makes, and has made, no representations or warranties whatsoever as to the existence or the availability of such warranties relating to the Equipment.

ARTICLE X

Section 10.01. Prepayment Option. Lessee shall have the option to prepay or satisfy all (or in the case of subsection (b) below, all or part) of its obligations hereunder, at the following times and upon the following terms:

(a) From and after the date specified (if any) in the Payment Schedule (the *"Prepayment Option Commencement Date"*), on the Rental Payment Dates specified in the Payment Schedule, upon not less than 30 days' prior written notice, and upon payment in full of the Rental Payments then due and all other amounts then owing under this Agreement plus the then applicable Prepayment Price, which may include a prepayment premium on the unpaid balance as set forth in the Payment Schedule; or

(b) In the event that Energy Conservation Equipment is destroyed or damaged to such an extent that there is substantial interference with the use and right of possession by Lessee of that item which would result in an abatement of Rental Payments or any thereof pursuant to Section 3.03, on the day specified in Lessee's notice to Lessor of its exercise of the prepayment option (which shall be the earlier of the next Rental Payment Date or 60 days after the casualty event) upon payment in full to Lessor of the sum of (i) any Rental Payment then due (calculated in accordance with Sections 3.03 and 4.01 hereof) plus (ii) an amount equal to the lesser of the then applicable Prepayment Price or [103]% of the aggregate unpaid principal portion of Rental Payments to be prepaid (or, in the event such prepayment occurs on a date other than a Rental Payment Date, the sum of such amount determined as of the next preceding Rental Payment Date plus accrued interest to such prepayment date) plus (iii) all other amounts then owing hereunder; or

(c) Upon the expiration of the Lease Term, upon payment in full of all Rental Payments then due and all other amounts then owing hereunder to Lessor; or

(d) In the event that a Loss of Subsidy (as hereafter defined) occurs, on the day specified in Lessee's notice to Lessor of its exercise of the prepayment option provided under this subsection (d), Lessee shall have the option to prepay all, but not less than all, of the Rental Payments from and after any Loss of Subsidy upon payment in full to Lessor of the sum of (i) any Rental Payment then due plus (ii) an amount equal to the lesser of the then applicable Prepayment Price or [103]% of the aggregate unpaid principal portion of Rental Payments (or, in the event such prepayment occurs on a date other than a Rental Payment Date, the sum of such lesser amount determined as of the next preceding Rental Payment Date plus accrued interest to such prepayment date) plus (iii) all other amounts then owing hereunder. *"Loss of Subsidy"* means the occurrence of any of the following: (A) legislation enacted by the Congress of the United States of America or a ruling, regulation or statement issued by the Treasury Department or the Internal Revenue Service, the effect of which (I) denies, repeals, revokes or reduces Lessee's applicable cash subsidy payments from the United States Treasury under Section 54A or 6431 of the Code (as currently in effect) with respect to this Agreement (herein referred to as *"Direct Subsidy Payments"*) or (II) imposes one or more new substantive conditions on the receipt by Lessee of Direct Subsidy Payments and such

conditions are unacceptable to Lessee; and (B) any governmental, administrative, judicial or other official action that is beyond Lessee's control and results in the significant reduction or loss of Direct Subsidy Payments to Lessee or imposes one or more new substantive conditions on the receipt by Lessee of Direct Subsidy Payments and such conditions are unacceptable to Lessee; *provided, however,* that in no event shall a *"Loss of Subsidy"* occur as the result of Lessee's failure or inability for reasons within its control to receive (or delay in receipt of) all or any portion of any Direct Subsidy Payment from the United States Department of Treasury or Lessee's failure to comply with applicable law and regulations to obtain payment of any Direct Subsidy Payment from the United States Department of Treasury, including (without limitation) any offset against any Direct Subsidy Payment as a result of other liabilities of Lessee to the United States Department of Treasury.

After payment of the applicable Prepayment Price and all other amounts owing hereunder, Lessor's security interests in and to such Energy Conservation Equipment will be terminated and Lessee will own the Energy Conservation Equipment free and clear of Lessor's security interest in the Energy Conservation Equipment.

ARTICLE XI

Section 11.01. Assignment by Lessor. (a) Lessor's right, title and interest in and to this Agreement, the Rental Payments and any other amounts payable by Lessee hereunder, the Acquisition Fund Agreement, its security interest in the Energy Conservation Equipment, the Acquisition Fund and the Delivery Costs Fund, and all proceeds therefrom may be assigned and reassigned in whole or in part to one or more assignees or subassignees by Lessor, without the necessity of obtaining the consent of Lessee; *provided,* that any such assignment, transfer or conveyance (i) shall be made only to investors each of whom Lessor reasonably believes is a *"qualified institutional buyer"* as defined in Rule 144A(a)(1) promulgated under the Securities Act of 1933, as amended, and is purchasing the Agreement (or any interest therein) for its own account with no present intention to resell or distribute the Agreement (or interest therein), subject to each investor's right at any time to dispose of the Agreement or any interest therein as it determines to be in its best interests, (ii) shall not result in more than 35 owners of Lessor's rights and interests under this Agreement or the creation of any interest in this Agreement in an aggregate principal component that is less than $100,000, (iii) shall not require Lessee to make Rental Payments, send notices or otherwise deal with respect to matters arising under this Agreement with or to more than one individual or entity and (iv) shall not require Lessee to participate in, or provide information with respect to, any private offering memorandum or other disclosure document and Lessee shall have no disclosure or continuing disclosure obligation with respect to any such assignment, transfer or conveyance. Any trust agreement, participation agreement or custodial agreement under which multiple ownership interests in this Agreement are created shall provide the method by which the owners of such interests shall establish the rights and duties of a single trustee, owner, servicer or other fiduciary or agent to act on their behalf with respect to the rights and interests of Lessor under this Agreement, including with respect to the exercise of rights and remedies by Lessor on behalf of such owners upon the occurrence of an Event of Default hereunder. Lessor and Lessee hereby acknowledge and agree that the restrictions and limitations on transfer as provided in this Section 11.01 shall apply to the

first and subsequent assignees and sub-assignees of any of Lessor's right, title and interest in, to and under this Agreement (or any interest therein).

(b) Unless to an affiliate controlling, controlled by or under common control with Lessor, no assignment, transfer or conveyance permitted by this Section 11.01 shall be effective until Lessee shall have received a written notice of assignment that discloses the name and address of each such assignee; *provided,* that if such assignment is made to a bank or trust company as trustee or paying agent for owners of certificates of participation, trust certificates or partnership interests with respect to the Rental Payments payable under this Agreement, it shall thereafter be sufficient that Lessee receives notice of the name and address of the bank or trust company as trustee or paying agent. During the Lease Term, Lessee shall keep, or cause to be kept, a complete and accurate record of all such assignments in form necessary to comply with Section 149 of the Code. Lessee shall retain all such notices as a register of all assignees and shall make all payments to the assignee or assignees designated in such register. Lessee shall not have the right to and shall not assert against any assignee any claim, counterclaim or other right Lessee may have against Lessor or the Vendor. Assignments in part may include without limitation assignment of all of Lessor's security interest in and to the Energy Conservation Equipment and all rights in, to and under this Agreement related to such Equipment, and all of Lessor's security interest in and to the Acquisition Fund and the Delivery Costs Fund, or all rights in, to and under the Acquisition Fund Agreement.

(c) If Lessor notifies Lessee of its intent to assign this Agreement, Lessee agrees that it shall execute and deliver to Lessor a Notice and Acknowledgement of Assignment substantially in the form of Exhibit G attached hereto within ten (10) business days after its receipt of such request.

Section 11.02. Assignment and Subleasing by Lessee. **None of Lessee's right, title, and interest in, to and under this Agreement or any portion of the Energy Conservation Equipment or the Acquisition Fund Agreement, the Acquisition Fund or the Delivery Costs Fund may be assigned, encumbered or subleased by Lessee for any reason, and any purported assignment, encumbrance or sublease without Lessor's prior written consent shall be null and void.**

ARTICLE XII

Section 12.01. Events of Default Defined. Any of the following events shall constitute an *"Event of Default"* under this Agreement:

(a) Failure by Lessee to (i) pay any Rental Payment or other payment required to be paid under this Agreement within 10 days after the date when due as specified herein or (ii) maintain insurance as required herein;

(b) Failure by Lessee to observe and perform any covenant, condition or agreement contained in this Agreement on its part to be observed or performed, other than as referred to in subparagraph (a) above and other than a failure by Lessee to perform any covenant contained in Section 4.05 hereof that does not materially adversely

affect Lessor and its interests, for a period of 30 days after written notice specifying such failure and requesting that it be remedied is given to Lessee by Lessor, unless Lessor shall agree in writing to an extension of such time prior to its expiration; *provided* that, if the failure stated in the notice cannot be corrected within the applicable period, Lessor will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by Lessee within the applicable period and diligently pursued until the default is corrected;

(c) Any statement, representation or warranty made by Lessee in or pursuant to this Agreement or its execution, delivery or performance shall prove to have been false, incorrect, misleading, or breached in any material respect on the date when made;

[(d) Any default occurs under any other agreement for borrowing money, lease financing of property or otherwise receiving credit under which Lessee is an obligor, if such default arises under any other agreement for borrowing money, lease financing of property or provision of credit provided by Lessor or any affiliate of Lessor;]

[(e)] Lessee shall (i) apply for or consent to the appointment of a receiver, trustee, custodian or liquidator of Lessee, or of all or a substantial part of the assets of Lessee, (ii) be unable, fail or admit in writing its inability generally to pay its debts as they become due, (iii) make a general assignment for the benefit of creditors or (iv) file a voluntary petition in bankruptcy or a petition or an answer seeking reorganization or an arrangement with creditors or taking advantage of any insolvency law or any answer admitting the material allegations of a petition filed against Lessee in any bankruptcy, reorganization, moratorium or insolvency proceeding; or

[(f)] An order, judgment or decree shall be entered by any court of competent jurisdiction, approving a petition or appointing a receiver, trustee, custodian or liquidator for the Lessee or of all or a substantial part of the assets of Lessee, in each case without its application, approval or consent, and such order, judgment or decree shall continue unstayed and in effect for any period of 30 consecutive days.

Failure on the part of Lessee to make any payment, transfer or disbursement provided for in this Agreement or in the Acquisition Fund Agreement to be paid from moneys in Lessee's general fund that are legally available and duly appropriated by Lessee's Board of Supervisors at its discretion and not at its obligation shall not be a default or Event of Default under this Agreement or the Acquisition Fund Agreement and no remedy is provided for any such failure.

Section 12.02. Remedies on Default. Whenever any Event of Default exists, Lessor shall have the right, at its sole option without any further demand or notice, to take one or any combination of the following remedial steps:

(a) By written notice to Lessee, Lessor may without terminating this Agreement, take whatever action at law or in equity may appear necessary or desirable to collect each Rental Payment payable by Lessee and other amounts payable by Lessee hereunder as they become due and payable;

(b) With or without terminating the Lease Term, Lessor may enter the premises where the Energy Conservation Equipment is located and retake possession of such Equipment or require Lessee at Lessee's expense to promptly return any or all of such Equipment to the possession of Lessor at such place within the United States as Lessor shall specify, and sell or lease such Equipment or, for the account of Lessee, sublease such Equipment, continuing to hold Lessee liable, but solely from legally available funds, for the difference between (i) the Rental Payments payable by Lessee and other amounts hereunder or the Energy Conservation Equipment that are payable by Lessee to the end of the Lease Term, and (ii) the net proceeds of any such sale, leasing or subleasing (after deducting all reasonable expenses of Lessor in exercising its remedies hereunder, including without limitation all expenses of taking possession, storing, reconditioning and selling or leasing such Equipment and all brokerage, auctioneer's and attorney's fees), subject, however, to the provisions of Section 3.03; *provided,* that in no event shall Lessee be liable in any fiscal year for any amount in excess of the Rental Payments shown for such year in the Payment Schedule. The exercise of any such remedies respecting any such Event of Default shall not relieve Lessee of any other liabilities hereunder or the Energy Conservation Equipment;

(c) Lessor may terminate the Acquisition Fund Agreement and apply any proceeds in the Acquisition Fund and the Delivery Costs Fund to the Rental Payments due hereunder;

(d) Lessor may take whatever action at law or in equity may appear necessary or desirable to enforce its rights under this Agreement or the Acquisition Fund Agreement or as a secured party in any or all of the Energy Conservation Equipment or the Acquisition Fund or the Delivery Costs Fund;

(e) By action pursuant to the California Code of Civil Procedure, or as otherwise provided by law, obtain the issuance of a writ of mandamus enforcing, for each fiscal year *seriatim* during the entire balance of the remaining Lease Term, subject to Section 3.03, the duty of Lessee to appropriate and take all other administrative steps necessary for the payment of Rental Payments and other amounts due hereunder; and

(f) Without terminating this Agreement and only while the Event of Default is continuing, charge the Default Rate under this Agreement and the Rental Payments for such period shall be recomputed based on such Default Rate.

Section 12.03. No Remedy Exclusive; No Acceleration. No remedy herein conferred upon or reserved to Lessor is intended to be exclusive and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder now or hereafter existing at law or in equity; *provided* that Lessor shall have no right to accelerate any Rental Payment or otherwise declare any Rental Payment or other amount payable not then in default to be immediately due and payable. No delay or omission to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right or power may be exercised from time to time and as often as may be deemed expedient. In

order to entitle Lessor to exercise any remedy reserved to it in this Article it shall not be necessary to give any notice other than such notice as may be required in this Article.

ARTICLE XIII

Section 13.01. Notices. All notices, certificates or other communications under this Agreement shall be sufficiently given and shall be deemed given when delivered or mailed by registered mail, postage prepaid, or delivered by overnight courier, or sent by facsimile transmission (with electronic confirmation) to the parties hereto at the addresses immediately after the signatures to this Agreement (or at such other address as either party hereto shall designate in writing to the other for notices to such party) and to any assignee at its address as it appears on the registration books maintained by Lessee.

Section 13.02. Binding Effect. This Agreement shall inure to the benefit of and shall be binding upon Lessor and Lessee and their respective successors and assigns.

Section 13.03. Severability. In the event any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

Section 13.04. Amendments, Changes and Modifications. This Agreement may only be amended by Lessor and Lessee in writing, *provided, however,* that Lessee may modify or amend any of its covenants set forth in Section 4.05 in such manner as Lessee shall determine without prior notice to, or consent or approval of, Lessor.

Section 13.05. Execution in Counterparts. This Agreement may be simultaneously executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

Section 13.06. Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State.

Section 13.07. Captions. The captions or headings in this Agreement are for convenience only and in no way define, limit or describe the scope or intent of any provisions or sections of this Agreement.

[Remainder of Page Intentionally Left Blank]

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Lessor and Lessee have caused this Agreement to be executed in their names by their duly authorized representatives as of the date first above written.

LESSOR:
Banc of America Leasing & Capital, LLC
11333 McCormick Road
Hunt Valley II
M/C MD5-032-07-05
Hunt Valley, MD 21031
Attention: Contract Administration
Fax No.: (443) 556-6977

By:_____
Name: _____
Title: _____

LESSEE:
County of Los Angeles
Treasurer and Tax Collector
Kenneth Hahn Hall of Administration
500 West Temple Street, Room 437
Los Angeles, California 90012
Attention: Douglas Baron
Fax No.: (213) 625-2249

By:_____
Name: Mark J. Saladino
Title: Treasurer and Tax Collector

Counterpart No. ____ of ____ manually executed and serially numbered counterparts. To the extent that this Agreement constitutes chattel paper (as defined in the Uniform Commercial Code), no security interest herein may be created through the transfer or possession of any Counterpart other than Counterpart No. 1.

LIST OF EXHIBITS

Exhibit A	—	Equipment Schedule
Exhibit B	—	Rental Payments Schedule
Exhibit C	—	Form of Authorizing Resolution
Exhibit D	—	Form of Opinion of Counsel Form
Exhibit E	—	Form of Final Acceptance Certificate
Exhibit F	—	Form of Self-Insurance Certificate
Exhibit G	—	Form of Notice and Acknowledgement of Assignment
Exhibit H	—	Form of Acquisition Fund and Account Control Agreement

EXHIBIT A

EQUIPMENT SCHEDULE

Location of Energy Conservation Equipment:

[to be provided]

Energy Conservation Equipment Description (Scope of Work):

[to be provided]

EXHIBIT B

RENTAL PAYMENTS SCHEDULE

RENTAL PAYMENT DATE	RENTAL PAYMENT AMOUNT	INTEREST PORTION	PRINCIPAL PORTION	OUTSTANDING BALANCE	PREPAYMENT PRICE (including prepayment premium, if applicable)

Contract Rate. The Contract Rate is _____% per annum.

Prepayment Option Commencement Date. For purposes of Section 10.01 of the Agreement, the Prepayment Option Commencement Date is _____, 20__.

EXHIBIT C

FORM OF INCUMBENCY AND AUTHORIZATION CERTIFICATE

The undersigned, the duly elected or appointed and acting Executive Officer-Clerk of the Board of Supervisors of the County of Los Angeles, California, certifies on behalf of the County of Los Angeles, California (the *"Lessee"*) as follows:

A. The following listed persons are duly elected or appointed and acting officers of the Lessee (the *"Authorized Officers"*) in the capacity set forth opposite their respective names below and that the facsimile signatures are true and correct as of the date hereof.

B. The Authorized Officers are duly authorized, on behalf of the Lessee, to negotiate, execute and deliver that certain purchase offer letter from Banc of America Leasing & Capital, LLC (in such capacity, the *"Purchaser"*) dated August __, 2011, the Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy) to be dated as of its date of its execution and delivery, between the Lessee and Banc of America Leasing & Capital, LLC (in such capacity, *"Lessor"*), the Acquisition Fund and Account Control Agreement to be dated as of the date of its execution and delivery, among the Lessor, the Lessee and Deutsche Bank National Trust Company, as Acquisition Fund Custodian, and all documents related thereto and delivered in connection therewith (collectively, the *"Agreements"*), and the Agreements are each the binding and authorized agreements of the Lessee, enforceable in all respects in accordance with their respective terms.

NAME OF AUTHORIZED OFFICER	TITLE	SIGNATURE
_____	_____	_____
_____	_____	_____

C. All financial statements and other information delivered to the Purchaser are correct and complete. From August ___, 2011 to the date hereof, there has not occurred a downgrade of two or more sub-grades on any of Lessee's publicly available long-term general obligation bond ratings or any of Lessee's other long-term general fund related bond ratings by either Moody's Investors Service, Inc. or Standard & Poor's Ratings Group.

Dated: _____

By: _____
Name: _____
Title: _____

(The signer of this Certificate cannot be listed above as authorized to execute the Agreements.)

EXHIBIT D

FORM OF OPINION OF COUNSEL TO LESSEE
(to be typed on letterhead of counsel)

_____, 2011

Banc of America Leasing & Capital, LLC
11333 McCormick Road
Mail Code: MD5-032-07-05
Hunt Valley, MD 21031
Attn: Contract Administration

Re: Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy)
dated as of _____, 2011, between
Banc of America Leasing & Capital, LLC, as Lessor, and
County of Los Angeles, California, as Lessee

Ladies and Gentlemen:

As legal counsel to the County of Los Angeles, California (*"Lessee"*), we have examined (a) an executed counterpart of that certain offer letter dated August __, 2011 from Banc of America Leasing & Capital, LLC and accepted by Lessee on August __, 2011 (the *"Purchase Contract"*), (b) an executed counterpart of that certain Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy), dated as of _____, 2011 (the *"Agreement"*), and Exhibits thereto, between Banc of America Leasing & Capital, LLC (*"Lessor"*) and Lessee, which, among other things, provides for the lease of certain property (the *"Energy Conservation Equipment"*), (c) an executed counterpart of that certain Acquisition Fund and Account Control Agreement dated as of _____, 2011 (the *"Acquisition Fund Agreement"*) among Lessor, Lessee, and Deutsche Bank National Trust Company, as Acquisition Fund Custodian, (d) a certified copy of the resolutions of Lessee with respect to the transaction contemplated by the Purchase Contract, the Agreement, the Acquisition Fund Agreement and documents related thereto and (e) such other opinions, documents and matters of law as we have deemed necessary in connection with the following opinions. The Purchase Contract, the Agreement, the Acquisition Fund Agreement and the documents relating thereto are referred to collectively as the "Transaction Documents."

Based on the foregoing, we are of the following opinions:

1. Lessee is a political subdivision of the State of California.

2. Lessee has the requisite power and authority to lease and acquire the Energy Conservation Equipment and to execute and deliver the Transaction Documents and to perform its obligations under the Transaction Documents.

3. The Transaction Documents have been duly authorized, approved, executed and delivered by and on behalf of Lessee and the Transaction Documents are legal, valid and binding obligations of Lessee enforceable in accordance with their respective terms.

4. The Purchase Contract created on its date of acceptance, execution and delivery by Lessee a binding, written contract under applicable California law (assuming due authorization, execution and delivery thereof by Banc of America Leasing & Capital, LLC).

5. The authorization, approval, execution and delivery of the Transaction Documents and all other proceedings of Lessee relating to the transactions contemplated thereby have been performed in accordance with all open meeting laws, public bidding laws and all other applicable state or federal laws.

6. There is no proceeding pending or, to the best of our knowledge, threatened in any court or before any governmental authority or arbitration board or tribunal that, if adversely determined, would adversely affect the transactions contemplated by the Transaction Documents or the security interest of Lessor or its assigns, as the case may be, in the Energy Conservation Equipment, the Acquisition Fund, the Delivery Costs Fund or other collateral thereunder.

Notwithstanding anything stated to the contrary herein:

1. We expressly decline to render any opinion regarding the taxability or tax effect (under both state and federal law) of the transactions which are the subject of this opinion letter.

2. This opinion is based on the existing laws of the State of California as of this date and we expressly decline to render any opinion as to any laws or regulations of other state or jurisdictions (including federal law and regulations) as they may pertain to the transactions that are the subject of this opinion letter, the Transaction Documents or the effect of noncompliance under any such laws or regulations of any other jurisdictions.

3. This opinion is furnished for you and is solely for your benefit and the benefit of your successors and assigns. Other than you and your successors and assigns, it may not be relied upon by any other person or entity however organized. No attorney-client relationship is created by the rendering of this opinion.

4. This opinion may be used only in connection with the transactions contemplated under the Transaction Documents.

5. This opinion is given as of this date, and we expressly decline any undertaking to advise you of any matters arising subsequent to the date hereof which would cause us to amend any portion of the foregoing in whole or in part.

6. The opinions set forth are subject to applicable bankruptcy, insolvency, reorganization, moratorium or similar laws or equitable principles affecting the enforcement of creditors' rights generally. The enforcement of the Transaction Documents is subject to the effect of general principles of equity, including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing, and the possible unavailability of specific performance or injunctive relief, regardless of whether considered in a proceeding in equity or at law, and to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public entities in the State of California and the application of California law relating to conflicts of interest to which public entities are subject. We express no opinion as to the enforceability of any provisions relating to indemnification or forum.

7. Our failure to enumerate any exclusion from our representations set forth above does not in any manner expand our opinion.

All capitalized terms herein shall have the same meanings as in the Transaction Documents unless otherwise provided herein. Lessor and its successors and assigns are entitled to rely on this opinion.

Sincerely,

EXHIBIT E

FORM OF FINAL ACCEPTANCE CERTIFICATE

Banc of America Leasing & Capital, LLC
11333 McCormick Road
Mail Code: MD5-032-07-05
Hunt Valley, MD 21031
Attn: Contract Administration

Re: Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy)
between Banc of America Leasing & Capital, LLC, as Lessor, and
County of Los Angeles, California, as Lessee

Ladies and Gentlemen:

In accordance with Section 5.01 of the Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy) (the *"Agreement"*), the undersigned Lessee hereby certifies and represents to, and agrees with Lessor as follows:

1. Equipment Acceptance for all of the Energy Conservation Equipment (as such term is defined in the Agreement) has occurred as evidenced by the related Disbursement Requests heretofore or herewith delivered in accordance with the Acquisition Fund Agreement.

2. Lessee has conducted such inspection and/or testing of the Energy Conservation Equipment as it deems necessary and appropriate and hereby acknowledges that it accepts the Energy Conservation Equipment for all purposes.

3. Lessee is currently maintaining the insurance coverage required by Section 7.02 of the Agreement.

4. Lessee hereby reaffirms that the representations, warranties and covenants contained in the Agreement are true and correct as of the date hereof.

5. No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default (as defined in the Agreement) exists at the date hereof.

Date: _____

LESSEE: COUNTY OF LOS ANGELES, CALIFORNIA

By: _____
Name: _____
Title: _____

EXHIBIT F

FORM OF SELF-INSURANCE CERTIFICATE

Banc of America Leasing & Capital, LLC
11333 McCormick Road
Mail Code: MD5-032-07-05
Hunt Valley, MD 21031
Attn: Contract Administration

Re: Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy)
dated as of _____, 2011 (the *"Agreement"*)
between Banc of America Leasing & Capital, LLC, as Lessor,
and County of Los Angeles, California, as Lessee

In connection with the above-referenced Agreement, the County of Los Angeles, California (the *"Lessee"*), warrants and represents to Banc of America Leasing & Capital, LLC the following information. The terms capitalized herein but not defined herein shall have the meanings assigned to them in the Agreement.

1. The Lessee is self-insured for damage or destruction to the Energy Conservation Equipment. The dollar amount limit for property damage to the Energy Conservation Equipment under such self-insurance program is $_____. [The Lessee maintains an umbrella insurance policy for claims in excess of Lessee's self-insurance limits for property damage to the Energy Conservation Equipment which policy has a dollar limit for property damage to the Energy Conservation Equipment under such policy of $_____.]

2. The Lessee is self-insured for liability for injury or death of any person or damage or loss of property arising out of or relating to the condition or operation of the Energy Conservation Equipment. The dollar limit for such liability claims under the Lessee's self-insurance program is $_____. [The Lessee maintains an umbrella insurance policy for claims in excess of Lessee's self-insurance limits for liability which policy has a dollar limit for liabilities for injury and death to persons as well as damage or loss of property arising out of or relating to the condition or operation of the Energy Conservation Equipment in the amount of $_____.

[3]. The Lessee maintains a self-insurance fund. Monies in the self-insurance fund [are/are not] subject to annual appropriation. The total amount maintained in the self-insurance fund to cover Lessee's self-insurance liabilities is $_____. [Amounts paid from the Lessee's self-insurance fund are subject to a dollar per claim of $_____.]

[3]. The Lessee does not maintain a self-insurance fund. The Lessee obtains funds to pay claims for which it has self-insured from the following sources: _____

_____. Amounts payable for claims from the such sources are limited as follows: _____

4. Attached hereto are copies of certificates of insurance with respect to policies maintained by Lessee.

LESSEE:
County of Los Angeles, California

By: _____
Name: _____
Title: _____

EXHIBIT G

FORM OF NOTICE AND ACKNOWLEDGEMENT OF ASSIGNMENT

DATED _____

BANC OF AMERICA LEASING & CAPITAL, LLC (*"Assignor"*) hereby gives notice that it has assigned and sold to _____ (*"Assignee"*) all of Assignor's right, title and interest in, to and under the Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy) dated as of _____, 2011 (the *"Agreement"*), between Assignor and County of Los Angeles, California (*"Lessee"*), together with all exhibits, schedules, addenda and attachments related thereto, and all certifications and other documents delivered in connection therewith, the Rental Payments and other amounts due under the Agreement, all of Assignor's right, title and interest in the Energy Conservation Equipment (as defined in the Agreement), and all of Assignor's right, title and interest in, to and under the Acquisition Fund and Account Control Agreement dated as of _____, 2011 (the *"Acquisition Fund Agreement"*) by and among Lessee, Assignor and Deutsche Bank National Trust Company, as Acquisition Fund Custodian, together with the Acquisition Fund and the Delivery Costs Fund related thereto (collectively, the *"Assigned Property"*).

1. In accordance with the terms of the Agreement, Lessee hereby acknowledges the effect of the assignment of the Assigned Property and absolutely and unconditionally agrees to deliver to Assignee all Rental Payments and other amounts coming due under the Agreement in accordance with the terms thereof on and after the date of this Acknowledgment.

2. Lessee hereby agrees that: (i) Assignee shall have all the rights of Lessor under the Agreement and all related documents, including, but not limited to, the rights to issue or receive all notices and reports, to give all consents or agreements to modifications thereto, to receive title to the Energy Conservation Equipment in accordance with the terms of the Agreement, to declare a default and to exercise all remedies thereunder; and (ii) except as provided in Sections 3.03 and 4.01(b) of the Agreement, the obligations of Lessee to make Rental Payments and to perform and observe the other covenants and agreements contained in the Agreement shall be absolute and unconditional in all events without abatement, diminution, deduction, set-off or defense.

3. Lessee agrees that, as of the date of this Notice and Acknowledgment of Assignment (this *"Acknowledgement"*), the following information about the Agreement is true, accurate and complete:

Number of Rental Payments Remaining	–	_____
Amount of Each Rental Payment	–	$_____
Total Amount of Rents Remaining	–	$_____
Frequency of Rental Payments	–	_____
Next Rental Payment Due	–	_____
Funds Remaining in Acquisition Fund and the Delivery Costs Fund	–	$_____

4. The Agreement remains in full force and effect, has not been amended and no Event of Default (or event which with the passage of time or the giving of notice or both would constitute a default) has occurred thereunder.

5. Any inquiries of Lessee related to the Agreement and any requests for disbursements from the Acquisition Fund, if applicable, and all Rental Payments and other amounts coming due pursuant to the Agreement on and after the date of this Acknowledgment should be remitted to Assignee at the following address (or such other address as provided to Lessee in writing from time to time by Assignee):

_____
_____
_____

ACKNOWLEDGED AND AGREED:
LESSEE: COUNTY OF LOS ANGELES, CALIFORNIA

By:_____
Name: _____
Title: _____

ASSIGNOR: BANC OF AMERICA LEASING & CAPITAL, LLC

By:_____
Name: _____
Title: _____

EXHIBIT H

FORM OF ACQUISITION FUND AND ACCOUNT CONTROL AGREEMENT

This Acquisition Fund and Account Control Agreement (this *"Agreement"*), dated as of _____, 2011, by and among Banc of America Leasing & Capital, LLC (hereinafter referred to as *"Lessor"*), the County of Los Angeles, California (hereinafter referred to as *"Lessee"*) and Deutsche Bank National Trust Company (hereinafter referred to as *"Acquisition Fund Custodian"*).

Reference is made to that certain Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy) dated as of _____, 2011, between Lessor and Lessee (hereinafter referred to as the *"Lease"*), covering the acquisition, installation and lease of certain Energy Conservation Equipment described therein (the *"Energy Conservation Equipment"*). It is a requirement of the Lease that the Acquisition Amount ($[14,000,000]) be deposited into an escrow under terms satisfactory to Lessor, for the purpose of fully funding the Lease, and providing a mechanism for the application of such amounts to the acquisition and installation of and payment for the Energy Conservation Equipment and payment of the Delivery Costs.

The parties agree as follows:

1. *Creation of Acquisition Fund and Delivery Costs Fund.*

(a) There is hereby created a special trust fund to be known as the "County of Los Angeles, California, Energy Conservation Equipment Acquisition Fund" (the *"Acquisition Fund"*) to be held in trust by Acquisition Fund Custodian for the purposes stated herein, for the benefit of Lessor and Lessee, to be held, disbursed and returned in accordance with the terms hereof.

(b) There is hereby created a special trust fund to be known as the "County of Los Angeles, California, Energy Conservation Equipment Delivery Costs Fund" (the *"Delivery Costs Fund"*) to be held in trust by Acquisition Fund Custodian for the purposes stated herein, for the benefit of Lessor and Lessee, to be held, disbursed and returned in accordance with the terms hereof.

(c) Acquisition Fund Custodian shall invest and reinvest moneys on deposit in the Acquisition Fund and the Delivery Costs Fund in Qualified Investments (as hereinafter defined in this subsection) in accordance with written instructions received from Lessee. Lessee shall be solely responsible for ascertaining that all proposed investments and reinvestments are Qualified Investments and that they comply with federal, State and local laws, regulations and ordinances governing investment of such funds and for providing appropriate notice to Acquisition Fund Custodian for the reinvestment of any maturing investment. Accordingly, neither Acquisition Fund Custodian nor Lessor shall be responsible for any liability, cost, expense, loss or claim of any kind, directly or indirectly arising out of or related to the investment or reinvestment of all or any

portion of the moneys on deposit in the Acquisition Fund or the Delivery Costs Fund, and Lessee agrees to and does hereby release Acquisition Fund Custodian and Lessor from any such liability, cost, expenses, loss or claim. Interest on the Acquisition Fund and the Delivery Costs Fund shall become part of the respective Funds, and gains and losses on the investment of the moneys on deposit in the Acquisition Fund and the Delivery Costs Fund shall be borne by the respective Funds. For purposes of this agreement, "Qualified Investments" means any investments which meet the requirements of California Government Code Sections 53600 *et seq.*

(d) Unless the Acquisition Fund is earlier terminated in accordance with the provisions of paragraph (f) below, amounts in the Acquisition Fund shall be disbursed by the Acquisition Fund Custodian in payment of amounts described in Section 2 hereof upon receipt of written authorization(s) from Lessor, as is more fully described in Section 2 hereof. If the amounts in the Acquisition Fund are insufficient to pay such amounts, Lessee shall provide any balance of the funds needed to complete the acquisition and installation of the Energy Conservation Equipment; *provided, however,* that any amount required for such purpose shall be payable solely from moneys appropriated for such purpose by the Board of Supervisors of Lessee in its discretion, and failure to appropriate such moneys shall not constitute an event of default under this Agreement or the Lease. Any moneys remaining in the Acquisition Fund on or after the earlier of (i) the expiration of the Acquisition Period, (ii) the date on which Lessee executes and delivers to Lessor the Final Acceptance Certificate pursuant to Section 5.01(a) of the Agreement or (iii) the 90th day following the later of _____, 2014 or, if Lessee has obtained an extension for the expenditure of amounts in such Fund in accordance with Section 54A(d)(2) of the Code, the close of such extended period, shall be applied as provided in Section 4 hereof in accordance with Section 4.06 of the Lease.

(e) Unless the Delivery Costs Fund is earlier terminated in accordance with the provisions of paragraph (f) below, amounts in the Delivery Costs Fund shall be applied to pay Delivery Costs upon receipt by Acquisition Fund Custodian of written directions from Lessee, which are approved in writing by Lessor, that identifies the payees and the amounts to be paid for Delivery Costs. Upon the earlier of January 1, 2012 or payment of all Delivery Costs, amounts in the Delivery Costs Fund shall be transferred to, and used for the purposes of, the Acquisition Fund.

(f) The Acquisition Fund and the Delivery Costs Fund shall be terminated at the earliest of (i) the final distribution of amounts in the Acquisition Fund and the Delivery Costs Fund or (ii) written notice given by Lessor of the occurrence of a default under the Lease.

(g) The Acquisition Fund Custodian may act in reliance upon any writing or instrument or signature which it, in good faith, believes to be genuine

and may assume the validity and accuracy of any statement or assertion contained in such a writing or instrument. The Acquisition Fund Custodian shall not be liable in any manner for the sufficiency or correctness as to form, manner of execution, or validity of any instrument nor as to the identity, authority, or right of any person executing the same; and its duties hereunder shall be limited to the receipt of such moneys, instruments or other documents received by it as the Acquisition Fund Custodian, and for the disposition of the same in accordance herewith.

(h) Unless Acquisition Fund Custodian is guilty of gross negligence or willful misconduct with regard to its duties hereunder, Lessee agrees to and does hereby release and indemnify Acquisition Fund Custodian (to the fullest extent permitted by applicable law and subject to appropriation of moneys sufficient for such purpose by the Board of Supervisors of Lessee in its discretion, and failure to appropriate such moneys shall not constitute an event of default under this Agreement or the Lease) and hold it harmless from any and all claims, liabilities, losses, actions, suits or proceedings at law or in equity, or any other expense, fees or charges of any character or nature, which it may incur or with which it may be threatened by reason of its acting as Acquisition Fund Custodian under this Agreement; and in connection therewith, does indemnify Acquisition Fund Custodian (to the fullest extent permitted by applicable law and subject to appropriation of moneys sufficient for such purpose by the Board of Supervisors of Lessee in its discretion, and failure to appropriate such moneys shall not constitute an event of default under this Agreement or the Lease) against any and all expenses; including reasonable attorneys' fees and the cost of defending any action, suit or proceeding or resisting any claim.

(i) If Lessee and Lessor shall be in disagreement about the interpretation of the Lease, or about the rights and obligations, or the propriety of any action contemplated by Acquisition Fund Custodian hereunder, Acquisition Fund Custodian may, but shall not be required to, file an appropriate civil action to resolve the disagreement. Acquisition Fund Custodian shall be reimbursed by Lessee for all costs, including reasonable attorneys' fees, in connection with such civil action, and shall be fully protected in suspending all or part of its activities under the Lease until a final judgment in such action is received.

(j) Acquisition Fund Custodian may consult with counsel of its own choice and shall have full and complete authorization and protection with the opinion of such counsel. Acquisition Fund Custodian shall otherwise not be liable for any mistakes of fact or errors of judgment, or for any acts or omissions of any kind unless caused by its willful misconduct.

(k) Subject to Lessee's prior written approval of any costs and expenses related to extraordinary administration as herein provided prior to an Event of Default, Lessee shall reimburse Acquisition Fund Custodian for all reasonable costs and expenses, including those of Acquisition Fund Custodian's

attorneys, agents and employees incurred for extraordinary administration of the Acquisition Fund and the Delivery Costs Fund and the performance of Acquisition Fund Custodian's powers and duties hereunder in connection with any Event of Default under the Lease, or in connection with any dispute between Lessor and Lessee concerning the Acquisition Fund or the Delivery Costs Fund.

2. *Acquisition and Installation of Energy Conservation Equipment.*

(a) *Acquisition Contracts.* Lessee will arrange for, supervise and provide for, or cause to be supervised and provided for, the acquisition and installation of the Equipment with moneys from the Acquisition Fund. Lessee represents that the estimated costs of the Energy Conservation Equipment are within the funds estimated to be available therefor, and Lessor makes no warranty or representation with respect thereto. Lessor shall have no liability under any of the acquisition or construction contracts. Lessee shall obtain all necessary permits and approvals, if any, for the acquisition, equipping and installation of the Energy Conservation Equipment, and the operation and maintenance thereof.

(b) *Authorized Acquisition Fund Disbursements.* Disbursements from the Acquisition Fund shall be made for the purpose of paying (including the reimbursement to Lessee for advances from its own funds to accomplish the purposes hereinafter described) the cost of acquiring the Energy Conservation Equipment. **Lessee and Acquisition Fund Custodian hereby acknowledge and agree that prior to Equipment Acceptance any demands for payment of related Equipment Costs or any other amounts due to the Vendors shall be paid by Lessee from its own funds that are legally available for the purpose and not from funds held in the Acquisition Fund. Such funds so paid by the Lessee may be reimbursed as provided in the Lease, subject to any limitations on any such reimbursement as otherwise provided in the Lease.**

(c) *Requisition Procedure.* Prior to disbursement from the Acquisition Fund there shall be filed with the Acquisition Fund Custodian a requisition for such payment in the form of Disbursement Request attached hereto as Schedule 1 (a *"Disbursement Request"*), stating each amount to be paid and the name of the person, firm or corporation to whom payment thereof is due and certifying the Acceptance Date of Equipment Acceptance for the portion of Energy Conservation Equipment for which disbursement is requested. Each such Disbursement Request shall be signed by an authorized representative of Lessee (an *"Authorized Representative"*) and by Lessor, and shall be subject to the following:

1. Delivery to Lessor of an executed Disbursement Request in the form attached hereto as Schedule 1 certifying that:

(i) Equipment Acceptance has occurred as of the Acceptance Date identified therein with respect to the portion of

Energy Conservation Equipment for which disbursement is requested; (ii) an obligation in the stated amount has been incurred by Lessee, is a proper charge against the Acquisition Fund for costs relating to the Energy Conservation Equipment identified in the Lease and has not been paid (or has been paid by Lessee and Lessee requests reimbursement thereof); (iii) the Authorized Representative has no notice of any vendor's, mechanic's or other liens or rights to liens, chattel mortgages, conditional sales contracts or security interest which should be satisfied or discharged before such payment is made; (iv) such requisition contains no item representing payment on account, or any retained percentages which Lessee is, at the date of such certificate, entitled to retain (except to the extent such amounts represent a reimbursement to Lessee); (v) the Energy Conservation Equipment is insured in accordance with the Lease; (vi) [no Event of Default (nor any event which, with notice or lapse of time or both, would become an Event of Default) has occurred and is continuing;] and [(vii)] the representations, warranties and covenants of Lessee set forth in the Lease are true and correct as of the date thereof.

2. Delivery to Lessor of invoices (and proofs of payment of such invoices, if Lessee seeks reimbursement) as required by Section 5.01(b) of the Lease and any additional documentation reasonably requested by Lessor;

3. The disbursement shall occur during the Acquisition Period[; and]

[4. No Event of Default (nor any event which, with notice or lapse of time or both, would become an Event of Default) has occurred and is continuing under the Lease].

Notwithstanding anything in this Agreement to the contrary, an amount may not be disbursed from the Acquisition Fund to pay Equipment Costs relating to a portion of the Energy Conservation Equipment prior to the date on which Lessee has certified to Acquisition Fund Custodian in the related disbursement request that Equipment Acceptance has occurred with respect to such portion of Energy Conservation Equipment for which funds are requested for disbursement from the Acquisition Fund.

3. *Deposit to Acquisition Fund and Delivery Costs Fund.* Upon satisfaction of the conditions specified in Section 3.04 of the Lease, Lessor will cause the Acquisition Amount to be deposited as follows: (a) $_____ into the Acquisition Fund and (b) $_____ into the Delivery Costs Fund. Lessee agrees to pay any costs with respect to the Energy Conservation Equipment in excess of amounts available therefor in the Acquisition Fund and to pay Delivery Costs in excess of amounts available therefor in the Delivery Costs Fund; *provided, however,* that any amount required for such purpose shall

be payable solely from moneys appropriated for such purpose by the Board of Supervisors of Lessee in its discretion, and failure to appropriate such moneys shall not constitute an event of default under this Agreement or the Lease.

4. *Excessive Acquisition Fund.* Any funds remaining in the Acquisition Fund (including any funds transferred from the Delivery Costs Fund pursuant to Section 1(e) hereof) on or after the earlier of (a) the expiration of the Acquisition Period, (b) the date on which Lessee executes and delivers to Lessor the Final Acceptance Certificate pursuant to Section 5.01(a) of the Agreement or (c) the 90th day following the later of _____, 2014 or, if Lessee has obtained an extension for the expenditure of amounts in the Acquisition Fund in accordance with Section 54A(d)(2) of the Code, the close of such extended period, or upon a termination of the Acquisition Fund and the Delivery Costs Fund as otherwise provided herein, shall be applied by Acquisition Fund Custodian to the prepayment price owed under the Lease in accordance with Section 4.06 of the Lease.

5. *Security Interest.* Acquisition Fund Custodian and Lessee acknowledge and agree that the Acquisition Fund, the Delivery Costs Fund and all proceeds thereof are being held by Acquisition Fund Custodian for disbursement or return as set forth herein. Lessee hereby grants to Lessor a first priority perfected security interest in the Acquisition Fund, the Delivery Costs Fund and all proceeds thereof and all investments made with any amounts in the Acquisition Fund and the Delivery Costs Fund. If the Acquisition Fund and the Delivery Costs Fund, or any part of either thereof, is converted to investments as set forth in this Agreement, such investments shall be made in the name of Acquisition Fund Custodian and Acquisition Fund Custodian hereby agrees to hold such investments as bailee for Lessor so that Lessor is deemed to have possession of such investments for the purpose of perfecting its security interest.

6. *Control of Acquisition Fund and Delivery Costs Fund.* In order to perfect Lessor's security interest by means of control in (i) the Acquisition Fund established hereunder, (ii) the Delivery Costs Fund established hereunder, (iii) all securities entitlements, investment property and other financial assets now or hereafter credited to the Acquisition Fund or the Delivery Costs Fund, as the case may be, (iv) all of Lessee's rights in respect of the Acquisition Fund and the Delivery Costs Fund, such securities entitlements, investment property and other financial assets, and (v) all products, proceeds and revenues of and from any of the foregoing personal property (collectively, the *"Collateral"*), Lessor, Lessee and Acquisition Fund Custodian further agree as follows:

(a) All terms used in this Section 6 which are defined in the California Commercial Code (the *"Commercial Code"*) but are not otherwise defined herein shall have the meanings assigned to such terms in the Commercial Code, as in effect on the date of this Agreement.

(b) Acquisition Fund Custodian will comply with all entitlement orders originated by Lessor with respect to the Collateral, or any portion of the Collateral, without further consent by Lessee.

(c) Acquisition Fund Custodian hereby represents and warrants that (i) the records of Acquisition Fund Custodian show that Lessee is the sole owner of the Collateral, (ii) Acquisition Fund Custodian has not been served with any notice of levy or received any notice of any security interest in or other claim to the Collateral, or any portion of the Collateral, other than Lessor's claim pursuant to this Agreement, and (iii) Acquisition Fund Custodian is not presently obligated to accept any entitlement order from any person with respect to the Collateral, except for entitlement orders that Acquisition Fund Custodian is obligated to accept from Lessor under this Agreement and entitlement orders that Acquisition Fund Custodian, subject to the provisions of paragraph (e) below, is obligated to accept from Lessee.

(d) Without the prior written consent of Lessor, Acquisition Fund Custodian will not enter into any agreement by which Acquisition Fund Custodian agrees to comply with any entitlement order of any person other than Lessor or, subject to the provisions of paragraph (e) below, Lessee, with respect to any portion or all of the Collateral. Acquisition Fund Custodian shall promptly notify Lessor if any person requests Acquisition Fund Custodian to enter into any such agreement or otherwise asserts or seeks to assert a lien, encumbrance or adverse claim against any portion or all of the Collateral.

(e) Except as otherwise provided in this paragraph (e) and subject to Section 1(c) hereof, Acquisition Fund Custodian may allow Lessee to effect sales, trades, transfers and exchanges of Collateral within the Acquisition Fund and the Delivery Costs Fund, but will not, without the prior written consent of Lessor, allow Lessee to withdraw any Collateral from the Acquisition Fund or the Delivery Costs Fund. Acquisition Fund Custodian acknowledges that Lessor reserves the right, by delivery of written notice to Acquisition Fund Custodian, to prohibit Lessee from effecting any withdrawals (including withdrawals of ordinary cash dividends and interest income), sales, trades, transfers or exchanges of any Collateral held in the Acquisition Fund or the Delivery Costs Fund. Further, Acquisition Fund Custodian hereby agrees to comply with any and all written instructions delivered by Lessor to Acquisition Fund Custodian (once it has had a reasonable opportunity to comply therewith) and has no obligation to, and will not, investigate the reason for any action taken by Lessor, the amount of any obligations of Lessee to Lessor, the validity of any of Lessor's claims against or agreements with Lessee, the existence of any defaults under such agreements, or any other matter.

(f) Lessee hereby irrevocably authorizes Acquisition Fund Custodian to comply with all instructions and entitlement orders delivered by Lessor to Acquisition Fund Custodian.

(g) Acquisition Fund Custodian will not attempt to assert control, and does not claim and will not accept any security or other interest in, any part of the Collateral, and Acquisition Fund Custodian will not exercise, enforce or attempt to enforce any right of setoff against the Collateral, or otherwise charge or deduct from the Collateral any amount whatsoever.

(h) Acquisition Fund Custodian and Lessee hereby agree that any property held in the Acquisition Fund and the Delivery Costs Fund shall be treated as a financial asset under such section of the Commercial Code as corresponds with Section 8-102 of the Uniform Commercial Code, notwithstanding any contrary provision of any other agreement to which Acquisition Fund Custodian may be a party.

(i) Acquisition Fund Custodian is hereby authorized and instructed, and hereby agrees, to send to Lessor at its address set forth in Section 7 below, concurrently with the sending thereof to Lessee, duplicate copies of any and all monthly Acquisition Fund and Delivery Costs Fund statements or reports issued or sent to Lessee with respect to the Acquisition Fund and the Delivery Costs Fund.

7. *Miscellaneous*. Capitalized terms not otherwise defined herein shall have the meanings assigned to them in the Lease. This Agreement may not be amended except in writing signed by all parties hereto. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original instrument and each shall have the force and effect of an original and all of which together constitute, and shall be deemed to constitute, one and the same instrument. Notices hereunder shall be made in writing and shall be deemed to have been duly given when personally delivered or when deposited in the mail, first class postage prepaid, or delivered to an express carrier, charges prepaid, or sent by facsimile with electronic confirmation, addressed to each party at its address below:

If to Lessor:
Banc of America Leasing & Capital, LLC
11333 McCormick Road
Mail Code: MD5-032-07-05
Hunt Valley, MD 21031
Attn: Contract Administration
Fax: (443) 556-6977

If to Lessee:
County of Los Angeles
Kenneth Hahn Hall of Administration
500 West Temple Street, Room ___
Los Angeles, California 90012
Attn: _____
Fax: (213) _____

If to Acquisition
Fund Custodian: Deutsche Bank National Trust Company
200 South Tryon Street, Suite 550
Charlotte, NC 28202
Attn: Michael Weber
Phone: (704) 333-5744
Fax: (704) 333-5852

IN WITNESS WHEREOF, the parties have executed this Acquisition Fund and Account Control Agreement as of the date first above written.

Banc of America Leasing & Capital, LLC,
as Lessor

By:_____
Name: _____
Title: _____

County of Los Angeles, California
as Lessee

By:_____
Name: _____
Title: _____

Deutsche Bank National Trust Company,
as Acquisition Fund Custodian

By:_____
Name: _____
Title: _____

By:_____
Name: _____
Title: _____

SCHEDULE 1

TO THE ACQUISITION FUND AND ACCOUNT CONTROL AGREEMENT

FORM OF DISBURSEMENT REQUEST

Re: Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy) dated as of _____, 2011 (the *"Lease"*), between Banc of America Leasing & Capital, LLC, as Lessor, and the County of Los Angeles, California, as Lessee (Capitalized terms not otherwise defined herein shall have the meanings assigned to them in the Lease.)

In accordance with the terms of the Acquisition Fund and Account Control Agreement, dated as of _____, 2011 (the *"Acquisition Fund and Account Control Agreement"*) by and among Banc of America Leasing & Capital, LLC (*"Lessor"*), the County of Los Angeles, California (*"Lessee"*) and Deutsche Bank National Trust Company (the *"Acquisition Fund Custodian"*), the undersigned on behalf of Lessee hereby (a) accepts for purposes of the Lease (described above) the Energy Conservation Equipment described below as of the Acceptance Date identified below and (b) requests that the Acquisition Fund Custodian pay the following persons the following amounts from the Acquisition Fund created under the Acquisition Fund and Account Control Agreement for the following purposes:

PAYEE'S NAME AND ADDRESS	INVOICE NUMBER	DOLLAR AMOUNT	PURPOSE

The undersigned hereby certifies as follows:

(i) The Acceptance Date on which Equipment Acceptance has occurred for the Energy Conservation Equipment for which disbursement is hereby requested is _____, 20___.

(ii) An obligation in the stated amount has been incurred by Lessee, is a proper charge against the Acquisition Fund for costs relating to the Energy Conservation Equipment identified above and has not been paid (or has been paid by Lessee and Lessee requests reimbursement thereof). Attached hereto is the original invoice with respect to each such obligation.

(iii) The undersigned, as Authorized Representative, has no notice of any vendor's, mechanic's or other liens or rights to liens, chattel mortgages, conditional sales contracts or security interest which should be satisfied or discharged before such payment is made.

(iv) This requisition contains no item representing payment on account, or any retained percentages which Lessee is, at the date hereof, entitled to retain (except to the extent such amounts represent a reimbursement to Lessee).

(v) The Energy Conservation Equipment for which disbursement is hereby requested is insured in accordance with Section 7.02 of the Lease.

[(vi) No Event of Default, and no event which with notice or lapse of time, or both, would become an Event of Default, under the Lease has occurred and is continuing at the date hereof.]

[(vii)] The disbursement shall occur during the Acquisition Period.

[(viii)] The representations, warranties and covenants of Lessee set forth in the Lease are true and correct as of the date hereof.

Dated: _____

COUNTY OF LOS ANGELES, CALIFORNIA

By: _____
Authorized Representative

Disbursement of funds from the Acquisition Fund in accordance with the foregoing Disbursement Request hereby is authorized

BANC OF AMERICA LEASING & CAPITAL, LLC,
as Lessor under the Lease

By: _____
Name: _____
Title: _____

August 23, 2011

ATTACHMENT F

HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147

FORM OF PURCHASE CONTRACT

August __, 2011

County of Los Angeles
Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Re: Purchase Contract for Taxable QECB
Equipment Lease/Purchase Agreement (Direct Subsidy)
of County of Los Angeles, California, as Lessee

Ladies and Gentlemen:

Banc of America Leasing & Capital, LLC (the *"Purchaser"*) hereby offers to purchase from the County of Los Angeles, California (the *"Lessee"*) the above referenced Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy), to be dated the date of execution and delivery by the parties (the *"Agreement"*), to be entered into between the Lessee and Banc of America Leasing & Capital, LLC, as lessor (in such capacity, the *"Lessor"*), in substantially the form heretofore agreed upon. This offer is made subject to the Lessee's acceptance hereof on or before 11:59 p.m., Pacific time, on the date hereof, at which time this offer expires if not accepted. Upon the Lessee's acceptance of this offer, a contract will be formed and be binding upon the Lessee and the Purchaser. On the terms and conditions set forth below, the Purchaser hereby agrees to purchase from the Lessee, and the Lessee hereby agrees to sell and deliver to the Purchaser, the Agreement:

Description and Amount:	$_____ Taxable QECB Equipment Lease/Purchase Agreement (Direct Subsidy), to be dated as of the date of execution and delivery by the parties
Purchase Price:	$_____, which equals 100% of the aggregate principal component of Rental Payments under the Agreement (there being no accrued interest)
Interest Rate:	___% per annum (computed on a 360 day year of twelve 30-day months) commencing to accrue on the Closing Date (described below); the interest component of Rental Payments will be subject to federal income taxation
Purpose of Agreement:	Financing for the acquisition and installation of two 1-megawatt solar photovoltaic plants (collectively, the *"Energy Conservation Equipment"*) on County-owned vacant land

located between the Mira Loma Detention Center and the Challenger Memorial Youth Center in the City of Lancaster, California, that constitute *"qualified conservation purposes"* within the meaning of Section 54D of the Internal Revenue Code of 1986, as amended (the *"Code"*), including an amount to pay costs of issuance (not to exceed the 2% limitation).

Acquisition Period:

The *"Acquisition Period"* for acquisition and installation of the Energy Conservation Equipment is from the Closing Date to the fifth business day prior to [June 1], 2012.

Delivery of Original Agreement:

The Agreement may be executed and delivered in multiple counterparts provided that the original (so identified) counterpart is delivered to the Purchaser at closing.

Source of Payment and Security:

Rental Payments under the Agreement are payable from the Lessee's general fund or other funds that are legally available for that purpose. Except for the abatement of Rental Payments upon the occurrence of certain events of damage, destruction or condemnation and all of the Equipment being substantially available for the Lessee's beneficial use and enjoyment, the Lessee's obligations to make Rental Payments and to perform its other obligations under the Agreement shall be absolute and unconditional in all events without abatement, diminution, deduction, set-off or defense for any reason, including (without limitation) any failure of the Energy Conservation Equipment, disputes with any vendor or the Lessor or the failure or inability (for whatever reason) of the Lessee to receive (or delay in receipt of) all or any portion of the direct cash subsidy payments with respect to the Agreement (as described under "US Treasury Direct Cash Subsidy Payments" below).

The Lessee's obligations under the Agreement shall be secured by the grant of a first (and exclusive) priority security interest in the Energy Conservation Equipment, except as otherwise provided in the Agreement.

The Lessee's obligations under the Agreement shall also be secured by a first (and exclusive) priority pledge and security interest in the Acquisition Fund and the Delivery Costs Fund in which the proceeds of sale of the Agreement are deposited and held until applied for the purposes described above, including money and securities held therein and any investment earnings thereon, as provided in the Acquisition Fund and Account Control Agreement (the *"Acquisition Fund Agreement"*) to be entered into among the Lessee, the Lessor

and the Acquisition Fund Custodian therein identified.

US Treasury Direct Cash Subsidy Payments:

Pursuant to the Agreement, the Lessee will designate the Agreement as a *"qualified energy conservation bond"* within the meaning of Section 54D(a) of the Code. The Lessee will irrevocably elect under the Agreement to receive a direct cash subsidy payment from the United States Department of the Treasury with respect to the Agreement (the *"Direct Subsidy Payments"*) and acknowledge that, as a consequence of such election, the Lessor (including its successors and assigns) will not be entitled to a tax credit as a result of ownership of the Agreement.

The Lessee will be solely responsible to calculate the amount of the Direct Subsidy Payments, apply for the Direct Subsidy Payments and comply with applicable provisions of the Code during the term of the Agreement to obtain payment of the Direct Subsidy Payments from the United States Department of the Treasury. The amount of the Direct Subsidy Payments will be based on the credit rate published by the Secretary of the Treasury on the date hereof upon acceptance of this offer by the _____ of the Lessee. Such credit rate on the date hereof is ___%.

Rental Payments:

Rental Payments under the Agreement, consisting of a principal portion and an interest portion, will be payable on the dates and in the amounts set forth on *Exhibit A* hereto, subject to the provisions of the Agreement.

Agreement Term:

From the Closing Date to _____, 202__, subject to extension as provided in the Agreement and limitations thereon as provided in the Agreement.

Mandatory, Optional and Extraordinary Prepayment Provisions:

Rental Payments under the Agreement will not be subject to optional or extraordinary prepayment by the Lessee prior to the final Rental Payment due date, except in the following circumstances:

- *Mandatory Excess Proceeds Prepayment.* To the extent that less than 100% of the available project proceeds are expended for qualified purposes by the earlier of (i) the expiration of the Acquisition Period, (ii) the date on which the Lessee executes the Final Acceptance Certificate pursuant to the Agreement or (iii) the 90th day following the later of _____, 2014 or, if the Lessee has obtained an extension of the expenditure period from the Secretary of the Treasury,

the end of such extended period, all amounts then remaining in the Acquisition Fund will be applied (except as provided in the Agreement) to prepay Rental Payments in whole, or in part on a pro rata basis of the amount due on each Rental Payment due date. The prepayment price with respect to any such prepayment with respect to an amount of $250,000 or less shall be equal to [100]%, and with respect to an amount in excess of $250,000 shall be equal to [103]%, of the principal portion to be prepaid [(which includes a prepayment premium)] plus accrued interest on the prepaid principal portion to the prepayment date. In connection with any such prepayment, the Lessee shall pay the prepayment premium and interest accrued to the prepayment date on the unpaid principal portion from funds legally available to the Lessee for that purpose, but not from available project proceeds.

- *Optional Prepayment.* The Lessee shall have the option to prepay or satisfy all (or under Section 10.01(b) of the Agreement, all or part) of its obligations under the Agreement from and after _____, 20__, on any Rental Payment due date, upon not less than 30 days' prior written notice, and upon payment in full of the Rental Payments then due and all other amounts then owing under the Agreement plus the then applicable Prepayment Price as set forth on *Exhibit A* hereto.

- *Extraordinary Optional Prepayment Upon Damage, Destruction or Condemnation.* The Lessee shall have the option to purchase all, but not less than all, of the Energy Conservation Equipment in the event of substantial damage to or destruction or condemnation of substantially all of the Energy Conservation Equipment, on the day specified in the Lessee's notice to the Lessor of its exercise of the purchase option (which shall be the earlier of the next Rental Payment due date or 60 days after the casualty event) upon payment in full to the Lessor of the sum of (a) any Rental Payment then due plus (b) an amount equal to the lesser of the then applicable Purchase Price or [103]% of the aggregate unpaid principal portion of Rental Payments plus (c) all other amounts then owing under the Agreement.

- *Extraordinary Optional Prepayment Loss of Subsidy.* The Lessee shall have the option to purchase all, but not less than all, of the Energy Conservation Equipment from and after any Loss of Subsidy (as hereafter defined), on the day specified in the Lessee's notice to the Lessor of its exercise of the prepayment option upon payment in full to the Lessor of the sum of (a) any Rental Payment then due plus (b) an amount equal to the lesser of the then applicable Prepayment Price or [103]% of the aggregate unpaid principal portion of Rental Payments plus (c) all other amounts then owing under the Agreement. *"Loss of Subsidy" Loss of Subsidy"* means the occurrence of any of the following: (A) legislation enacted by the Congress of the United States of America or a ruling, regulation or statement issued by the Treasury Department or the Internal Revenue Service, the effect of which (I) denies, repeals, revokes or reduces the Direct Subsidy Payments or (II) imposes one or more new substantive conditions on the receipt by Lessee of Direct Subsidy Payments and such conditions are unacceptable to Lessee; and (B) any governmental, administrative, judicial or other official action that is beyond Lessee's control and results in the significant reduction or loss of Direct Subsidy Payments to Lessee or imposes one or more new substantive conditions on the receipt by Lessee of Direct Subsidy Payments and such conditions are unacceptable to Lessee; *provided, however,* that in no event shall a *"Loss of Subsidy"* occur as the result of Lessee's failure or inability for reasons within its control to receive (or delay in receipt of) all or any portion of any Direct Subsidy Payment from the United States Department of Treasury or Lessee's failure to comply with applicable law and regulations to obtain payment of any Direct Subsidy Payment from the United States Department of Treasury, including (without limitation) any offset against any Direct Subsidy Payment as a result of other liabilities of Lessee to the United States Department of Treasury.

Davis-Bacon Act Compliance: The Lessee shall comply with the requirements of the Davis-Bacon Act in connection with the acquisition and installation of the Energy Conservation Equipment.

Annual Financial Statements & Reporting:

Until all amounts owed to the Lessor under the Agreement are paid in full, the Lessee shall make available to the Lessor its annual audited financial statements, budget and other financial information as provided in the Agreement.

Documentation:

The Agreement and the Acquisition Fund Agreement shall be executed and delivered by the Lessee and the Lessor in substantially the forms agreed upon by the Lessee and the Lessor prior to the date hereof. All other documentation relating to the transaction provided in the Agreement shall be prepared by the Lessee's Counsel and shall be in form and content acceptable to the Purchaser and the Lessee.

Investment Letter:

The Purchaser will sign an investment letter on the Closing Date to the effect that it (a) is a *"qualified institutional buyer"* as defined in Rule 144A(a)(1) promulgated under the Securities Act of 1933, as amended; (b) has conducted its own investigation of the financial condition of the Lessee, the purpose for which the Agreement is being entered into and of the security for payment of the Rental Payments under the Agreement and has obtained such information regarding the Agreement and the Lessee and its operations, financial condition and financial prospects as the Purchaser deems necessary to make an informed investment decision with respect to its purchase of the Agreement; (c) is purchasing the Agreement for its own account and without a present intention to sell any portion thereof to any other person, *provided* that the Purchaser retains the right at any time to dispose of the Agreement or any interest therein as it may determine to be in its best interests and that any subsequent resale shall be made only in accordance with the Agreement and applicable securities laws; (d) acknowledges and agrees that the Lessee is not required to participate in, or provide information with respect to, any private offering memorandum or other disclosure document in connection with any assignment, transfer or conveyance pursuant to the Agreement and the Lessee shall have no disclosure or continuing disclosure obligation with respect to any such assignment, transfer or conveyance; and (e) acknowledges and agrees that the obligation of the Lessee to pay Rental Payments under the Agreement shall constitute a current expense of the Lessee and shall not in any way be construed to be a debt of the Lessee in contravention of any applicable constitutional or statutory limitations or requirements concerning the creation of indebtedness by the Lessee, nor shall anything contained in

the Agreement constitute a pledge of the full faith and credit or taxing power of the Lessee.

Closing Date: On _____, 2011 (the *"Closing Date"*), unless the Lessee and the Purchaser agree to a different date.

Closing Conditions: The following are conditions precedent to the Purchaser's obligations under this contract:

At or prior to the Closing Date, the Lessee will deliver to the Purchaser the following:

- the Agreement and the Acquisition Fund Agreement executed by the respective parties thereto;
- a certified copy of a resolution adopted by the Board of Supervisors of the Lessee authorizing the execution and delivery of the Agreement and the Acquisition Fund Agreement and an incumbency and authorization certificate of the Lessee in form and content acceptable to the Purchaser;
- an opinion of counsel to the Lessee in substantially the form attached to the Agreement and otherwise in form and content acceptable to the Purchaser;
- evidence of insurance as required by Section 7.02 of the Agreement;
- financing statements under Article 9 of the California Commercial Code with respect to the Energy Conservation Equipment, sufficient to perfect security interests in personal property and fixtures and treating such Article 9 as effective with respect to governmental transfers;
- fully completed and executed I.R.S. information reporting return with respect to the Agreement;
- a certificate from an authorized officer of the Lessee to the effect that (a) all financial statements and other information delivered to the Purchaser are correct and complete; and (b) from the date hereof to the Closing Date, there shall not have occurred a downgrade of two or more sub-grades on any of the Lessee's publicly available long-term general obligation bond ratings or any of the Lessee's other long-term general fund related bond ratings by either Moody's Investors

Service, Inc. or Standard & Poor's Ratings Group; and

- payment and performance bonds (including dual obligee rider) as required by Section 7.04 of the Agreement.

From the date hereof to the Closing Date, there shall not have occurred any (i) downgrade of two or more sub-grades on any of the Lessee's publicly available long-term general obligation bond ratings or any of the Lessee's other long-term general fund related bond ratings by either Moody's Investors Service, Inc. or Standard & Poor's Ratings Group, (ii) event, court decision, proposed law or rule that may have the effect of changing the federal income tax incidents of the Agreement or the contemplated transaction, (iii) international or national crisis or banking moratorium materially affecting, in the reasonable opinion of the Purchaser, the market value of the Agreement or (iv) new restrictions on the extension of credit by banks or other lending institutions by any federal or state agency.

The Lessee shall have executed a tax certificate with respect to the Agreement and the Direct Subsidy Payments to the extent required by the Lessee based upon advice provided by Chapman and Cutler LLP, as tax counsel to the Lessee.

Fees and Expenses: The Lessee shall be responsible to pay fees and expenses related to this transaction, including fees and expenses of counsel to the Lessee and Purchaser Counsel (not to exceed $15,000 for Purchaser Counsel), placement agent/solar consultant fees and any fees and expenses of the Acquisition Fund Custodian. Such fees and expenses will be disbursed from the Delivery Costs Fund pursuant to the Acquisition Fund Agreement.

Continuing Disclosure: It is understood that, with respect to the Agreement, the Lessee will not be required to comply with the continuing disclosure requirements of SEC Rule 15c2-12(b).

Purchaser Contact:

Banc of America Leasing and Capital, LLC
11333 McCormick Road
M/C MD5-032-07-05
Hunt Valley II
Hunt Valley, Maryland 21031
Attention: Contract Administration
Fax: (443) 556-6977

Purchaser Counsel:

George Mardikes
Davis Wright Tremaine LLP
1300 SW Fifth Avenue, Suite 2300
Portland, Oregon 97201
Telephone: (503) 778-5323
Fax: (503) 276-5830

Integration Clause:

This offer, when accepted, will constitute the complete and entire contract between the Lessee and the Purchaser, and all prior communications and correspondence (including the Proposal Letter previously submitted to the Lessee) between the Lessee and the Purchaser with respect to the subject matter of the contract, whether written or oral, are superseded by the contract.

Governing Law:

This offer and the acceptance hereof, the contract formed hereby and the transactions completed hereunder will be governed by California law.

If the Lessee is in agreement with the terms and conditions contained herein, please sign in the space provided below indicating the Lessee's acceptance of this offer and return an executed copy of the contract via fax or e-mail to the Purchaser. If you should have any questions, please contact the undersigned.

Sincerely,

BANC OF AMERICA LEASING & CAPITAL, LLC

By:_____
Name:_____
Title:_____

Agreed and accepted on the date first above written:

COUNTY OF LOS ANGELES, CALIFORNIA

By:_____
Name:_____
Title:_____

EXHIBIT A

RENTAL PAYMENTS SCHEDULE

RENTAL PAYMENT DATE	RENTAL PAYMENT AMOUNT	INTEREST PORTION	PRINCIPAL PORTION	OUTSTANDING BALANCE	PREPAYMENT PRICE (including prepayment premium, if applicable)

August 23, 2011

ATTACHMENT G

HIGH DESERT COMPLEX SOLAR PROJECT
CITY OF LANCASTER
ADOPT MITIGATED NEGATIVE DECLARATION
APPROVE PROJECT AND PROJECT BUDGET
AUTHORIZE USE OF LEASE-PURCHASE FINANCING
AWARD DESIGN-BUILD AND OPERATIONS AND MAINTENANCE ENERGY SERVICE CONTRACTS
MAKE FINDINGS OF PROJECT SELF-FUNDING
CAPITAL PROJECT NO. 67940; SPECS. 7147

FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

BonTerra CONSULTING

MEMORANDUM

August 9, 2011

To:
Peter Burgis
Chief Executive Office
County of Los Angeles

From:
Kristin Keeling/Josephine Alido
BonTerra Consulting

Subject: Responses to Comments and Errata on the IS/MND for the Solar Energy Project

---

The 30-day public review period for the Initial Study/Mitigated Negative Declaration (IS/MND) for the County of Los Angeles Solar Energy Project ended on June 14, 2011. The purpose of this Memorandum is to present the public comments and our responses to these comments, as well as an Errata that shows revisions to the IS/MND made as a result of public comments received. This IS/MND, Mitigation Monitoring and Reporting Program (MMRP), and this Memorandum constitute the Final MND. All changes made to the IS/MND are reflected in this Memorandum and no other revisions to the IS/MND are required. This Memorandum satisfies the requirement that the Lead Agency consider the MND together with any comments received during the public review process, per CEQA Guidelines Section 15074.

Based on the analysis in the IS/MND and the comments received, the County has determined that no substantial new environmental issues have been raised that have not been adequately addressed in the IS/MND. No "substantial revisions" of the IS/MND were made or required as a result of public comments received that could mandate recirculation of the document per CEQA Guidelines Section 15073.5.

Project Summary

The proposed Solar Energy Project would be developed on approximately 63 acres of undeveloped portions of 2 County-owned parcels within the City of Lancaster. The project site is located adjacent to West Avenue I between 50th Street West and 60th Street West. The County is proposing to develop the project site with a solar energy facility with a system size of 2 to 4 megawatts (MW). The initial 2-MW facility will consist of two separate 1-MW solar photovoltaic systems, one of which will serve the Mira Loma Detention Center and the other to serve the Challenger Memorial Youth Center (CMYC). A potential for installation of 2 additional MW of solar system capacity is possible on the project site at a future phase of development.

The proposed project would consist of the following components: (1) solar photovoltaic (PV) panels; (2) mounting structures; (3) power conditioners; (4) site access road(s); and (5) perimeter fencing and security lighting. Construction of the Solar Energy Project would also include electrical connections to the Mira Loma Detention Center and CMYC, with underground conduits and/or electrical poles to be placed in Off-site Areas extending from the northwestern boundary of the site to the main switchgear facilities at the Mira Loma Detention Center and extending from the eastern boundary of the site to the main switchgear facilities at the CMYC (along the southern boundary of the CMYC).

Public Review of the IS/MND

The IS/MND for the project was subject to a 30-day public review period extending from May 16, 2011, through June 14, 2011. The IS/MND was distributed to responsible and trustee agencies, other affected agencies, and interested parties. A Notice of Intent to Adopt an MND was published in the Antelope Valley Press newspaper on May 16, 2011. The IS/MND and associated technical reports were also made available for viewing at the Lancaster Regional Library website (http://www.colapublib.org/libs/lancaster/) and at the Lancaster Regional Library, located at 601 West Lancaster Boulevard in Lancaster, California.

Comments on the IS/MND

Three public agency comment letters were submitted to the County during the public review period:

- Native American Heritage Commission – June 6, 2011
- Lahontan Regional Water Quality Control Board – June 10, 2011
- County of Los Angeles Fire Department – June 13, 2011

The County received two letters from the Governor's Office of Planning and Research, State Clearinghouse and Planning Unit documenting compliance with CEQA review requirements and acknowledging that same two comment letters from State agencies above were received through the State Clearinghouse. No response is required.

All substantive comments received on the IS/MND have been reviewed by the County, as the Lead Agency, and written responses to the significant environmental issues raised have been prepared. The comment letters and the responses to the comments are provided below, along with changes to the IS/MND resulting from the responses to the comments.

Responses to Comments

The responses to the environmental issues raised in the comment letters are represented below, with the comment letters attached.

Native American Heritage Commission
June 6, 2011

Response A: As identified in Section 4.5, Cultural Resources, of the IS/MND, as part of the IS/MND preparation, BonTerra Consulting requested a Sacred Lands File search from the Native American Heritage Commission (NAHC) on April 29, 2011. A response was received on May 3, 2011. The results of the Sacred Lands File search are summarized in the IS/MND and, as noted in the IS/MND, no information regarding the location of identified sites has been published.

Response B: Based on the contact list provided by the NAHC, informal consultation letters were sent to Native American tribes on May 4, 2011 (See Appendix B of the IS/MND). Responses from the tribes have been summarized in Section 4.5, Cultural Resources, of the IS/MND.

Response C: As described in Section 4.5, Cultural Resources, of the IS/MND, a records search and literature review for the project was conducted at the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton on May 3, 2010, along with a record search at the Natural History Museum of Los Angeles County (on June 6, 2010). A cultural resources survey of the project site was also conducted on May 6, 2010, by Mr. Pat Maxon and Mr. Albert Knight of BonTerra Consulting.

Response D: Refer to Response B above regarding consultation with tribes. Additionally, based on the Historical Resources Assessment prepared for the proposed project and included in Appendix B-3 of the IS/MND, a Mitigation Measure (MM 4.5-1) has been included in the IS/MND to prevent disturbance and destruction of the historical components of a wastewater treatment and reclamation system at the site.

Response E: The requirements under the *California Health and Safety Code* and *California Code of Regulations* upon the discovery of human remains have been called out in the IS/MND as a Regulatory Requirement (RR 4.5-1) in Section 4.5, Cultural Resources, of the IS/MND.

Response F: Monitoring of ground disturbance activities for cultural resources has been included as MM 4.5-2, in response to comments from local tribes and MM 4.5-3 would prevent any significant adverse impacts if fossil resources were discovered.

Response G: As discussed above, the IS/MND has been prepared in accordance with State and federal statutes, as outlined in the NAHC comment letter.

Lahontan Regional Water Quality Control Board
June 10, 2011

Response A: The commenter's concurrence with mitigation measure (MM) 4.4-2, and regulatory requirements (RR) 4.9-1 and 4.9-3 is noted and will be taken into consideration by the decision makers. No response is required.

Response B: Exhibit 3-2 has been revised to show the drainage facilities around the California State Prison – Los Angeles County (CSP-LAC) and the revised exhibit is provided after the Errata section of this document. These open drainage facilities would not be affected by the proposed Solar Energy Project.

Response C: As stated in the IS/MND, RR 4.9-2 would require the installation and maintenance of appropriate post-construction treatment control Best Management Practices (BMPs) pursuant to the requirements of the Los Angeles County Department of Public Works' *Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual.* In accordance with the County's LID standards, storm water runoff from the site would have to remain at existing volumes and velocity with the proposed project. As such, storm water coming into the site and within the site would be retained through ground infiltration, storage or reuse. Since the site is anticipated to remain largely pervious, even with the

project, it is expected that ground infiltration would be utilized to manage storm water on site. The LID standards call for minimizing disturbances to natural drainage patterns; minimizing soil compaction, and directing runoff from impervious areas to pervious areas. Thus, it is anticipated that localized retention and infiltration measures would be implemented as part of the project.

Response D: There would be no increase in runoff into drainage facilities located outside the site within the larger County-owned block. Rather, as discussed in Response C above, in compliance with the County's LID standards, the increase in runoff volume from the project shall be subject to ground infiltration (based on a hydrologic analysis as specified by the LID Standards Manual), and runoff from the site would be consistent with existing conditions. The hydrologic analysis would account for the site slope, length of flow path, soil type, and design storm in calculating the undeveloped/developed runoff volume, excess volume, and water quality treatment volume or flow rate.

Response E: Additional details on the construction and post-construction storm water management controls for the project have not been developed at this time, since the site improvement plans have not been finalized. Since the County will use a design-build method of delivery for the project, details of the project design have not been decided and will depend upon various site constraints and/or funding factors. However, the IS/MND evaluates the impacts of a solar photovoltaic (PV) facility within the design parameters that would be imposed on the County's Solar Engineering Consultant. It is also assumed that the project would comply with existing regulations, including the SUSMP and LID standards listed in RR 4.9-2. As part of the plan check process, the County will ensure that compliance with SUSMP and LID standards for long-term reduction of storm water runoff and pollution from the project and other County requirements are incorporated into final design. In addition, the project would also need to include construction storm water controls that comply with the State Water Resources Control Board's Construction General Permit for Storm Water Pollution and Prevention Plan preparation and implementation during construction.

County of Los Angeles Fire Department
June 13, 2011

Response A: The corrections stated in this comment have been addressed through revisions set forth in the Errata below.

Response B: This comment acknowledges that the information presented in the Fire Department letter is general in nature and that project-specific requirements will be addressed with submittal of the site plan. This is consistent with the Regulatory Requirement (RR) 4.14-1 on page 87 of the IS/MND, which requires that the project comply with the *Los Angeles County Code's Title 32*, and regulations of the Fire Department, including standards for building construction, emergency access, fire flow, water mains, and fire hydrants. In accordance with RR 4.14-1, the County must confirm that the project is designed to the satisfaction of the County Fire Department prior to approval of the site improvement and building plans.

Response C: This set of comments states the general requirement to install a water tank on solar array fields for Fire Department use, and states general design requirements for water tanks. Based on a discussion with Fire Department staff on August 2, 2011, whether or not a water tank is needed on the project site will be determined based on a future site visit from Fire Department staff to assess existing fire suppression infrastructure.

As discussed on page 10 of the IS/MND, "the exact configuration of the solar array design is currently unknown and would be determined under consultation between the County and its Solar Engineering Consultant. As such, it is anticipated that the development of the solar array could be located anywhere within the approximately 63-acre site. Therefore, this Initial Study assumes that the entirety of the project site could be developed with solar panels or appurtenant facilities." If upon consultation with the Fire Department during review of building plans it is determined that an on-site water tank is necessary, any environmental impacts associated with the installation of an on-site water tank would be covered as a part of the analysis in the IS/MND since the entire project site is assumed to be developed with structures up to 20 feet in height. In accordance with RR 4.14-1, the County must confirm that the project is designed to the satisfaction of the County Fire Department prior to approval of the site improvement and building plans.

Response D: This set of comments states the general requirement to install on-site fire apparatus access roads on solar array fields for Fire Department use, and states general design requirements for the fire roads. The project anticipates the development of access roads, as discussed on page 12 of the IS/MND. The IS/MND discusses the development of an access road from the existing driveway on West Avenue I and an access road that traverses the southern portion of the site, as well as new internal non-paved at-grade roads to access the solar panels and equipment buildings located within the project site. As stated in Response C, this Initial Study assumes that the entirety of the project site could be developed with solar panels or appurtenant facilities; therefore, any environmental impacts associated with the installation of access roads would be covered as a part of the analysis in the IS/MND.

Response E: This set of comments sets forth the general requirement to install ingress/egress gates on solar array fields, and states general design requirements for the gates. As stated in Response C, this Initial Study assumes that the entirety of the project site could be developed with solar panels or appurtenant facilities; therefore, any environmental impacts associated with the installation of access gates would be covered as a part of the analysis in the IS/MND.

Response F: This set of comments states the general requirement to clear and maintain on-site vegetation in compliance with the Fire Code or as directed by the Fire Official. As stated on page 10 of the IS/MND, the analysis assumes that the entirety of the project site could be developed with solar panels or appurtenant facilities. The project does not involve the installation, maintenance, or irrigation of landscaping vegetation. RR 4.14-1 on

page 87 of the IS/MND requires that the project comply with the *Los Angeles County Code's Title 32*, and regulations of the Fire Department, and that the County must confirm that the project is designed to the satisfaction of the County Fire Department prior to approval of the site improvement and building plans.

Response G: This set of comments states the general requirement for proper electrical connections on solar array fields. As stated on page 12 of the IS/MND, the project anticipates the development of several equipment buildings, power conditioners (including regulators and inverters) and switchgear to transfer the electricity generated by the solar panels to the utility network. All electrical work would be constructed in compliance with applicable state and local codes. RR 4.14-1 on page 87 of the IS/MND requires that the project comply with the *Los Angeles County Code's Title 32*, and regulations of the Fire Department, and that the County must confirm that the project is designed to the satisfaction of the County Fire Department prior to approval of the site improvement and building plans.

Response H: The Fire Department shall receive the requested number of site plans, consistent with RR 4.14-1 stated on page 87 of the IS/MND which requires that the project comply with the *Los Angeles County Code's Title 32*, and regulations of the Fire Department, and that the County must confirm that the project is designed to the satisfaction of the County Fire Department prior to approval of the site improvement and building plans.

Response I: This set of comments confirms that all project areas related to the Forestry Division of the Fire Department have been adequately addressed in the IS/MND and they have no additional comments.

Response J: This set of comments states the need to identify the nature of potential site contaminants in the soil prior to construction activities. As stated on page 9-1 of the Phase I Environmental Site Assessment contained in Appendix D of the IS/MND, subsurface soil sampling should be conducted to investigate the potential presence of residual petroleum hydrocarbons and heavy metals. In order to clarify the requirements set forth in the Phase I, the wording of MM 4.8-2 on page 70 of the IS/MND is hereby revised, as stated in the Errata below.

Errata - Clarifications/Revisions

Text revisions to the IS/MND are presented below. Additional text is noted in **bold**, while deleted text is noted with a ~~strikethrough~~. These clarifications/revisions do not change the conclusions presented in the IS/MND.

Exhibit 3-2, Aerial Photograph

In response to the comment from the Lahontan RWQCB, Exhibit 3-2, Aerial Photograph, has been revised to identify the open drainage channels around the CSP-LAC property, along 60th Street West, 50th Street West, and West Avenue J. The revised exhibit follows this page. This revision clarifies the information presented in the IS/MND, but does not change the analysis in the document, nor does it lead to different conclusions on the significance of the potential environmental impacts of the proposed project.

Page 67, Paragraph 3.

Construction activities would involve surface grading and possibly the removal of broken asphalt in certain areas. Therefore, workers on site would be exposed to soil and asphalt during construction activities. **The Phase I Environmental Site Assessment located in Appendix D of this IS/MND states that although no visual signs of contamination from the adjoining properties was observed or reported, there may be a possibility that hazardous substances and/or petroleum products may have been disposed of on or near the site based on the historical use of airfield operations, accessibility of the site, and heavy metal contamination at the adjacent property to the south.** MM 4.8-2 **requires that upon determination of the location of the solar panels and appurtenant facilities on the project site, soil samples shall be taken and tested for contaminants of concern. Additionally, if abnormal soil staining and/or odors are encountered during grading and excavation activities that could indicate the presence of petroleum hydrocarbons, heavy metals, or other contamination, construction activities shall be halted and an assessment of the soils shall be conducted prior to the continuation of grading or excavation activities.** ~~requires grading and excavation activities to cease immediately if unusual soil staining and/or odors are encountered during earthmoving activities, and soil testing would be required to determine if residual contamination of hazardous materials or petroleum products is present in on-site soils.~~ If chemical levels are above regulatory standards, remediation and/or removal of contaminated soils in compliance with applicable local, State, and federal standards and requirements shall be conducted prior to project construction. Additionally, disposal of any contaminated soils would be conducted in compliance with existing hazardous material regulations, including the Hazardous Material Transportation Act (RR 4.8-1) and the Certified Unified Program Agency (CUPA) (RR 4.8-2). Compliance with RR 4.8-1, RR 4.8-2, and implementation of MM 4.8-2 would ensure that potential hazards during construction activities would be less than significant.

Page 70

MM 4.8-2 **Upon determination of the location of the solar panels and appurtenant facilities on the project site, soil samples shall be taken and tested for contaminants of concern. The result of the laboratory data would dictate whether the site requires further action, to be conducted in compliance with applicable regulations and under oversight by a local or State governmental agency. Additionally, i**f abnormal soil staining and/or odors are encountered during grading and excavation activities that could indicate the presence of petroleum hydrocarbons, heavy metals, or other contamination, construction activities shall be halted and an assessment of the soils shall be conducted prior to the continuation of grading or excavation activities. If the results of the soil testing show the presence of chemicals below regulatory levels, grading or excavation may proceed accordingly. If chemical levels are above regulatory standards, remediation and/or removal of contaminated soils in compliance with applicable local, State, and federal standards and requirements shall be conducted prior to project construction. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

Page 86, Paragraph 2.

Fire protection services in the City are provided by the Los Angeles County Fire Department. ~~through 8~~ **There are 6** fire stations **within the City**. The nearest fire station to the site is Fire Station 130, which is located at 44558 40th Street West, approximately 2 miles east of the site. This station is staffed by a three-person engine company; three-person Urban Search and Rescue team **(combined to form a USAR Task Force).** ~~five-person Hazardous Materials Task Force; and one Hazardous Materials Unit. It is equipped with one engine and one Urban Search and Rescue unit.~~

Page 95, Paragraph 2

No water or wastewater services or connections to existing facilities are required by the project. Water for washing the PV panels would be provided by a subcontractor that would bring in a water truck to spray the panels. Water in the truck would be obtained from groundwater supplies, imported water, recycled water, or other sources at the discretion of the subcontractor**, but per MM 4.17-1, the water** will not come from ~~the site or~~ the adjacent County facilities **or water derived from the Antelope Valley Groundwater Basin**. No wastewater generation would occur with the project, and no demand of sewage treatment would be generated. No new water or wastewater treatment facilities or expansion of existing facilities is needed to serve the proposed solar array. Impacts would be less than significant.

Page 95, Paragraph 4

The proposed project would require minimal water supply during construction activities and for the washing of the PV panels during long-term maintenance. Water supply required during construction would primarily be used for fugitive dust control during asphalt removal and grading activities that would occur for a total of **approximately** three months (two months for asphalt removal and two months for grading, with a one-month overlap) for each 2 MW facility. Assuming an average of 2,400 gallons of water used for dust control each day, 22 days of site watering per month, and a total of 6 months of asphalt removal, grading, excavation for both phases of the 4 MW facility, total water use during construction is estimated at approximately 1 acre-foot. Long-term operational activities would require water for PV panel washing at 1 to 4 times per year, which would be provided by a water truck (subcontracted to a private company). Water use for this maintenance activity is estimated at 8,000 gallons per year. **Additionally, depending on the adequacy of existing fire suppression infrastructure adjacent to the project site, the County Fire Department may require the construction of an on-site water tank for emergency fire department use only.**

The temporary demand for one acre-foot of water during construction over 6 months and the long-term demand for 8,000 gallons per year would be a de minimus amount of water**. Additionally, the water used to fill the water tank, if required, would be indefinitely stored on-site and not require refilling unless a fire emergency occurred. However,** ~~in the Antelope Valley but~~ due to concerns on overdrafting the **Antelope Valley Groundwater** Basin and ongoing Adjudication proceedings, water use by the project would create a demand for water in the Antelope Valley that could increase groundwater pumping. Due to the limited groundwater resources in the Antelope Valley, this is considered a significant impact.

In order to reduce any increase in groundwater pumping in the Basin, MM 4.17-1 requires that site watering during construction, **PV panel washing, and the fire suppression water tank (if required)** utilize non-potable water or water derived from sources other than the Basin. Also, MM 4.17-2 requires that no landscaped areas or planting requiring a permanent supply of irrigation water be provided as part of the project. These measures will prevent increased groundwater pumping and avoid the need for a permanent demand for water at the site. Impacts would be less than significant with mitigation.

Page 97

MM 4.17-1 Water for **short-term construction** site watering **and long-term PV panel washing and water tank storage for fire suppression (if required),** shall utilize non-potable water or water derived from sources other than the Antelope Valley Groundwater Basin. The County shall confirm this requirement is included as notes on the contractor specifications. The Contractor's compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

Attachments: Comment Letters
Revised Exhibit 3-2

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

June 6, 2011

Mr. Peter Burgis, Planner

COUNTY OF LOS ANGELES CHIEF EXECUTIVE OFFICE
754 KENNETH HAHN HALL OF ADMINISTRATION
500 West Temple Street
Los Angeles, CA 90012

Re: SCH#2011051043 CEQA Notice of Completion; proposed Mitigated Negative Declaration for the: **"County of Los Angeles Solar Energy Project;"** Located in the City of Lancaster; Los Angeles County, California

Dear Mr. Burgis:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources. The NAHC wishes to comment on the above-referenced proposed Project.

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC Sacred Lands File (SLF) search resulted in; **Native American cultural resources were not identified** within the 'area of potential effect (APE), based on the USGS coordinates of the project location provided. However, there are Native American cultural resources in close proximity to the APE. The NAHC "Sacred Sites,' as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254.10.

A

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American

B

contacts, to see if your proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project. Pursuant to C"A Public Resources Code § 5097.95, the NAHC requests that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

Furthermore we recommend, also, that you contact the California Historic Resources Information System (CHRIS) California Office of Historic Preservation for pertinent archaeological data within or near the APE, at (916) 445-7000 for the nearest Information Center in order to learn what archaeological fixtures may have been recorded in the APE.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation.

Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code 5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code 6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places and there may be sites within the APE eligible for listing on the California Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

B
C
D
E
F
G

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

California Native American Contact List
Los Angeles County
June 6 2011

Charles Cooke
32835 Santiago Road
Acton , CA 93510
suscol@intox.net

(661) 733-1812 - cell
suscol@intox.net

Chumash
Fernandeno
Tataviam
Kitanemuk

Ron Wermuth
P.O. Box 168
Kernville , CA 93238
warmoose@earthlink.net
(760) 376-4240 - Home
(916) 717-1176 - Cell

Tubatulabal
Kawaiisu
Koso
Yokuts

Beverly Salazar Folkes
1931 Shadybrook Drive
Thousand Oaks, CA 91362
folkes@msn.com
805 492-7255
(805) 558-1154 - cell
folkes9@msn.com

Chumash
Tataviam
Ferrnandeño

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
981 N. Virginia
Covina , CA 91722
deedominguez@juno.com
(626) 339-6785

Yowlumne
Kitanemuk

Fernandeno Tataviam Band of Mission Indians
Ronnie Salas, Cultural Preservation Department
601 South Brand Boulevard, Suite 102
San Fernando CA 91340
rsalas@tataviam-nsn.gov
(818) 837-0794 Office

(818) 837-0796 Fax

Fernandeno
Tataviam

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838
Newhall , CA 91322
tsen2u@hotmail.com
(661) 753-9833 Office
(760) 885-0955 Cell
(760) 949-1604 Fax

Fernandeño
Tataviam
Serrano
Vanyume
Kitanemuk

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Randy Guzman - Folkes
655 Los Angeles Avenue, Unit E
Moorpark , CA 93021
ndnRandy@yahoo.com
(805) 905-1675 - cell

Chumash
Fernandeño
Tataviam
Shoshone Paiute
Yaqui

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH #2011051043; CEQA Notice of Completion; propsoed Mitigated Negative Declaration for the Solar Energy Project; located in the City of Lancaster; Los Angeles County, California.

California Regional Water Quality Control Board
Lahontan Region

Linda S. Adams
Acting Secretary for
Environmental Protection

2501 Lake Tahoe Boulevard, South Lake Tahoe, California 96150
(530) 542-5400 • Fax (530) 544-2271
www.waterboards.ca.gov/lahontan

Edmund G. Brown Jr.
Governor

June 10, 2011

Peter Burgis
County of Los Angeles
Chief Executive Office
754 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

COMMENTS REGARDING THE NOTICE OF COMPLETION OF A MITIGATED NEGATIVE DECLARATION FOR THE SOLAR ENERGY PROJECT, LOS ANGELES COUNTY (STATE CLEARINGHOUSE NO. 2011051043)

California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received the Notice of Completion of an Initial Study/Mitigated Negative Declaration (IS/MND) for the Solar Energy Project (Project) on May 18, 2011. The proposed Project involves construction and operation of a photovoltaic solar facility capable of generating up to 4 megawatts (MW) of electricity that will be located on 63 acres of land owned by Los Angeles County (County) within the City of Lancaster. The Project location is bordered by County facilities and is on the site of the former Polaris Flight Academy and War Eagle Field.

State law assigns responsibility for protection of water quality with the Lahontan region to the Water Board. The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect water quality within the region. As a state "responsible" agency under the provisions of the California Environmental Quality Act (CEQA), we have reviewed the information submitted and have the following comments.

A. Water Board staff strongly supports implementation of the following Mitigation Measures (MM) and Regulatory Requirements (RR) identified in the IS/MND:

- MM 4.4-2 which establishes an "Avoidance Area" that prohibits vegetation removal, ground disturbance and disturbance of riparian vegetation in the Off-site Area where water resources subject to State and/or Federal jurisdiction are identified.

- RR 4.9-1 which requires the filing of Permit Registration Documents (PRD) with the State Water Resources Control Board to obtain coverage under NPDES General Permit for Storm Water Discharges Associated with

Construction and Land Disturbance Activities (Order No. 2009-009-DWQ, NPDES No. CAS000002). We clarify here that the County, as the legally responsible party, must file the PRD, not the Project contractor as stated in the IS/MND. Compliance with this permit includes implementation of Best Management Practices (BMPs) and completion of a Storm Water Pollution Prevention Plan.

- RR 4.9-2 which requires that the project be designed and constructed in compliance with the County Department of Public Works' Standard Urban Stormwater Mitigation Plan (SUSMP) and 2009 Low Impact Development (LID) Standard Manual.

A

B. Water Board staff have some concerns over how post-construction storm water will be managed on the Project site given the limited Project design details. Page 74 of the IS/MND states that Exhibit 3-2 depicts the "large, open-faced drainage facility between the State-owned property and the adjacent roadways." However, looking at Exhibit 3-2 these features are not labeled or clearly identifiable. An Exhibit clearly showing the storm water facilities should be included in the IS/MND conditions of approval.

B

C. Although the project will have limited areas of impervious surface, the grading and compaction necessary to install the mounting structures and construct access roads will result in large areas that will convey sheet flow storm water runoff across the site. The Project area may actually produce more runoff once vegetation is cleared and the land is graded and compacted than it currently does. Page 13 of the IS/MND states that "no new storm drain facilities would be constructed" since the project will have only very limited areas of impervious surfaces. This seems to contradict the text on page 74 which states that compliance with SUSMP and LID standards, as required by RR 4.9-2, would ensure that storm water runoff is retained and infiltrated on site per County standards to ensure that no on-site or off-site flooding would occur. The Project proposes to grade over existing drainage swales in the Project area; it is unclear how runoff will be retained and infiltrated on-site without the construction of new facilities and thereby avoid significant effects from increased runoff. There is no clear description of how flows coming on-site from adjacent properties will be addressed post project, nor are there any details regarding retention and infiltration within the Project area. Water Board staff encourage localizing drainage controls and not relying on end-of-property containment area facilities.

C

D. If existing drainage swales and drainage facilities on the larger County-owned block will be used to address post-construction storm water management, the IS/MND should provide verification that the facilities have adequate capacity to handle flows from the Project. The Antelope Valley area can be prone to short duration, high-volume storm events which may not infiltrate well on compacted and graded soils. Whether retention facilities will be in the Project area or on the

D

larger County parcel, the design storm for the area should be identified to aid in understanding requirements for sizing of retention facilities for increased runoff. This design storm should describe storm intensities and the duration and precipitation volume expected to occur.

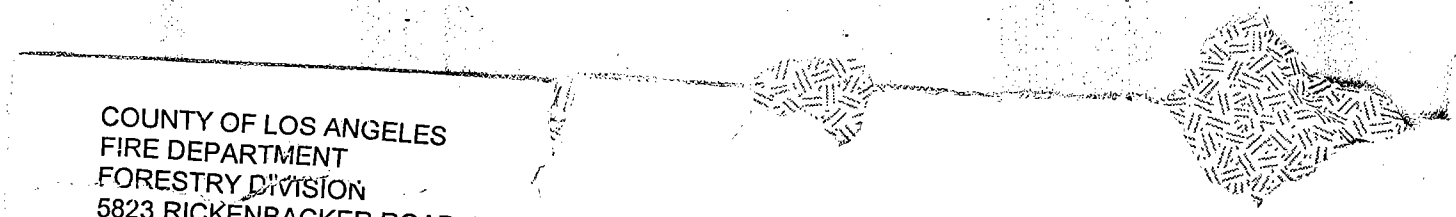
E. In summary, additional details regarding construction and post-construction storm water management controls should be added to the IS/MND to assure that potential impacts will be less than significant.

We are available to assist you in your efforts to protect water quality. If you have any questions regarding this letter, please contact me at (530) 542-5430 (aemiller@waterboards.ca.gov) or Tobi Tyler at (530) 542-5435 (ttyler@waterboards.ca.gov).

Alan Miller, P.E.
Chief, North Basin Regulatory Unit

cc: State Clearinghouse

LS/clhT: LA County Solar Project MND comments 6-10-11 LS_AEM
Filing: Pending/ Los Angeles County/ Solar Energy Project



COUNTY OF LOS ANGELES
FIRE DEPARTMENT
FORESTRY DIVISION
5823 RICKENBACKER ROAD, ROOM 123
COMMERCE CALIFORNIA 90040-4335

PETER BURGIS, STAFF MEMBER
COUNTY OF LOS ANGELES
CHIEF EXECUTIVE OFFICE
500 WEST TEMPLE STREET, ROOM 754
LOS ANGELES, CA 90012

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

(323) 890-4330

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

June 13, 2011

Peter Burgis, Staff Member
County of Los Angeles
Chief Executive Office
500 West Temple Street, Room 754
Los Angeles, CA 90012

Dear Mr. Burgis:

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION, SOLAR ENERGY PROJECT, SOUTH OF WEST AVENUE I, BETWEEN 60TH STREET WEST AND 50TH STREET WEST, LANCASTER (FFER #201100074)

The Notice of Intent to Adopt a Mitigated Negative Declaration has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

4.14 PUBLIC SERVICES

4.14.1 ENVIRONMENTAL SETTING

1. Paragraph 2 should be corrected as follows:

   a. Fire protection services in the City are provided by the Los Angeles County Fire Department. ~~through~~ There are ~~8~~ 6 Fire Stations within the City. The nearest Fire Station to the site is Fire Station 130, which is located at 44558 40th Street West, approximately 2 miles east of the site. This station is staffed by a three-person engine company, and a three-person Urban Search and Rescue team (combined to form a USAR Task Force).~~; five-person Hazardous Materials Task Force; and one Hazardous Materials Unit. It is equipped with one engine and one Urban Search and Rescue unit~~ (Lancaster 2009a).

LAND DEVELOPMENT UNIT:

General Comments:

1. The following information is general requirements for a solar array field. Specific requirements for this proposed solar array field will be addressed with the submittal of the site plan.

Water & Water Tank Requirements:

1. This development requires the installation of a water tank with a minimum tank size of 10,000 gallons for Fire Department use only.
2. The water tank shall be clearly identified for "Fire Department Use Only".
3. The water tank shall be located adjacent to the ingress/egress gate located on the address side of the property.
4. The water tank shall be in compliance with LACoFD Regulation #19.
5. The water tank shall have a low-level water alarm which shall be in compliance with all applicable codes and regulations.
6. The water tank shall have a Fire Department supply outlet of 2½ 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.
7. If the outlet is not provided directly off of the tank, provide a six inch underground pipe to a four inch upright pipe with an outlet of 2½ inches with National Standard threads, which is required to be protected by barricades.

On-site Fire Apparatus Access Road Requirements:

1. The fire apparatus on-site access roads shall be installed and maintained in a drivable condition for the duration of the solar project.
2. The fire apparatus on-site access roads shall be installed prior to occupancy or operation of the facility.
3. Provide a minimum width of 20 feet, clear-to-the-sky, and have a minimum turning radius of 32-foot on the centerline for all turns.
4. The fire apparatus on-site access roads shall have a soil compaction of 90%, or the apparatus access road shall be excavated and re-compacted to 90%.
5. Provide access around the entire perimeter of the solar project, and comply with the above noted requirements

6. Provide access roads within interior portion of the solar array fields.

7. Provide access to all on-site structures above and below grade, including electrical collection vaults, and meet the above listed requirements.

8. The access road shall be increased to 26 feet, clear-to-sky, all-weather access to within 150 feet of all exterior walls to any habitable structures which are used for habitable offices or maintenance space.

On-Site Ingress/Egress Gates:

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 20 feet, clear-to-the-sky, with all gate hardware clear of the road way width.

3. The onsite ingress/egress gates shall be in compliance with LACoFD Fire Prevention Regulation #5.

Vegetation Management:

1. 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.

2. The vegetation shall be trimmed to a maximum height of six inch within the boundaries of the solar array.

3. Electrical transformer vaults or structures shall have vegetation cleared to mineral soil for a distance of 50 feet.

Electrical Equipment:

1. All electrical disconnect locations shall be clearly identified.

2. All electrical shall be in compliance with all applicable state and local codes.

Additional Requirement:

1. Submit a minimum of four copies of the site plan with the indicated information to the Fire Department's Land Development Unit for review. The revised site plan shall be scaled with an Engineer Scale no greater than 1" = 200'.



FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance.

2. The areas germane to the statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division have been addressed.

HEALTH HAZARDOUS MATERIALS DIVISION:

1. Past site use of this property by the airfield of the Polaris Flight Academy may have contributed to potential soil contamination. Per the submitted report, the site remains on the Department of Toxic Substances Control list as a Formerly Used Defense site that needs further evaluation.

2. The construction of the proposed solar station will require soil removal, offsite soil disposal, grading, trenching, installation of concrete pads and mounting of solar panels. These activities would cause disturbance of soil and exposure of the construction workers to potential contaminants in soil and dust.

3. The report also states that any contaminated soil encountered during construction activities will be removed and disposed offsite. Not all hazardous substances in soil are easily identifiable by virtue of color or odor; laboratory analysis of samples are needed to characterize a site , write an appropriate health and safety plan, plan for offsite soil disposal and have a soil management plan. It would be practically impossible to accomplish these without actual knowledge on the nature of the potential contaminants.

4. It is prudent to identify the nature of the potential site contaminants prior to construction activities at the proposed solar station. It is necessary to perform a preliminary soil sampling and obtain a statically valid number of soil samples and then analyze it for contaminants of concern. The result of laboratory data would dictate further necessary action at the site. It is recommendation of the Health Hazardous Materials Division that if any significant contamination above background concentration is detected, the site should be mitigated under oversight of a local or State governmental agency.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

JOHN R. TODD, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

JRT:lj

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

JERRY BROWN
GOVERNOR

June 15, 2011

Peter Burgis
Los Angeles County
754 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Subject: Solar Energy Project
SCH#: 2011051043

Dear Peter Burgis:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 14, 2011, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2011051043
Project Title Solar Energy Project
Lead Agency Los Angeles County

Type MND Mitigated Negative Declaration

Description The proposed project involves development of a solar facility capable of generating up to 4 megawatts of electricity under peak solar conditions and would consist of : 1) solar photovoltaic (PV) panels, 2) mounting structures, 3) power conditioners, 4) site access, and 5) perimeter fencing and security lighting. Electrical connections would be provided from the equipment buildings to the main switchgear facilities of the Mira Loma Detention Center and the CMYC, through Off-site Areas extending from the northwestern boundaries of the site to the Mira Loma Detention Center and from the eastern boundary of the site to the CMYC (along the southern boundary of the CMYC).

Lead Agency Contact

Name Peter Burgis
Agency Los Angeles County
Phone 213 974 1417 **Fax**
email
Address 754 Kenneth Hahn Hall of Administration
500 West Temple Street
City Los Angeles **State** CA **Zip** 90012

Project Location

County Los Angeles
City Lancaster
Region
Lat / Long
Cross Streets South of West Avenue I between 60th Street West and 50th Street West
Parcel No. 3203-014-901
Township **Range** **Section** **Base**

Proximity to:

Highways No
Airports Fox Airfield
Railways No
Waterways No
Schools Sundown ES
Land Use P (Public)

Project Issues Aesthetic/Visual; Archaeologic-Historic; Biological Resources; Noise; Public Services; Toxic/Hazardous; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; Caltrans, District 7; Regional Water Quality Control Bd., Region 6 (Victorville); Department of Toxic Substances Control; California Energy Commission; Native American Heritage Commission; Public Utilities Commission

Date Received 05/16/2011 **Start of Review** 05/16/2011 **End of Review** 06/14/2011

Note: Blanks in data fields result from insufficient information provided by lead agency.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

June 16, 2011

Peter Burgis
Los Angeles County
754 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Subject: Solar Energy Project
SCH#: 2011051043

Dear Peter Burgis:

The enclosed comment (s) on your Mitigated Negative Declaration was (were) received by the State Clearinghouse after the end of the state review period, which closed on June 14, 2011. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

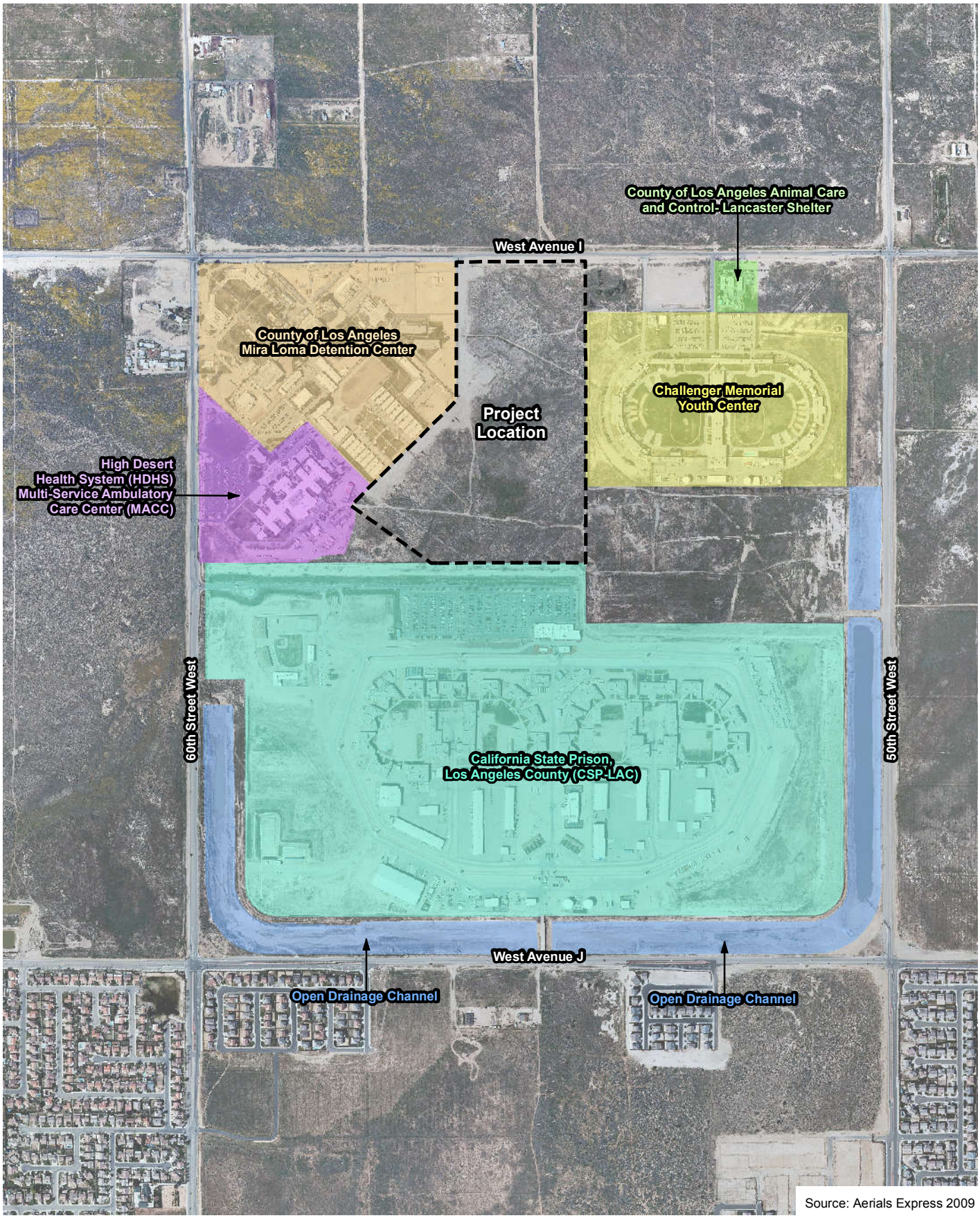
The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2011051043) when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency



D:\Projects\CoLACAO\J006\mxd\Ex_aerial.mxd

Aerial Photograph

Exhibit 3-2

County of Los Angeles Solar Energy Project

N W E S

1,000 500 0 1,000 Feet

BonTerra CONSULTING

(Rev: 6-14-2011 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex2-3_aerial.pdf

Initial Study/Mitigated Negative Declaration

County of Los Angeles
Solar Energy Project
City of Lancaster, California

Prepared for

County of Los Angeles Chief Executive Office
754 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Prepared by

BonTerra Consulting
3452 East Foothill Boulevard, Suite 420
Pasadena, California 91107
T: (626) 351-2000 F: (626) 351-2030

May 13, 2011

TABLE OF CONTENTS

Section **Page**

Section 1.0 Executive Summary 1
1.1 Introduction 1
1.2 Project Summary 1
1.3 Summary of Significant Environmental Impacts 2

Section 2.0 Introduction 3
2.1 Purpose of the Initial Study 3
2.2 Summary of Initial Study Findings 3
2.3 Project Approval 4
2.4 Organization of the Initial Study 4

Section 3.0 Environmental Setting and Project Description 7
3.1 Environmental Setting 7
3.1.1 Project Location 7
3.1.2 Project Site Characteristics 7
3.1.3 Surrounding Land Uses 8
3.2 Project Background 9
3.3 Project Description 10
3.3.1 Project Components 10
3.3.2 Operational Characteristics 15
3.4 Regulatory Background for Solar Energy Projects 16
3.5 Anticipated Project Approvals/Responsible Agencies 18

Section 4.0 Environmental Checklist Form 19
4.1 Aesthetics 21
4.1.1 Environmental Setting 21
4.1.2 Project Impacts 22
4.1.3 Mitigation Measures 24
4.2 Agriculture and Forest Resources 25
4.2.1 Environmental Setting 25
4.2.2 Project Impacts 25
4.2.3 Mitigation Measures 26
4.3 Air Quality 27
4.3.1 Environmental Setting 27
4.3.2 Project Impacts 29
4.3.3 Mitigation Measures 33

4.4 Biological Resources 34
4.4.1 Environmental Setting 34
4.4.2 Project Impacts 37
4.4.3 Mitigation Measures 42
4.5 Cultural Resources 44
4.5.1 Environmental Setting 44
4.5.2 Project Impacts 49
4.5.3 Mitigation Measures 52
4.6 Geology and Soils 54
4.6.1 Environmental Setting 54
4.6.2 Project Impacts 56
4.6.3 Mitigation Measures 58
4.7 Greenhouse Gas Emissions 59
4.7.1 Environmental Setting 59
4.7.2 Project Impacts 60
4.7.3 Mitigation Program 62
4.8 Hazards/Hazardous Materials 63
4.8.1 Environmental Setting 63
4.8.2 Project Impacts 66
4.8.3 Mitigation Measures 70
4.9 Hydrology and Water Quality 71
4.9.1 Environmental Setting 71
4.9.2 Project Impacts 72
4.9.3 Mitigation Measures 75
4.10 Land Use and Planning 76
4.10.1 Environmental Setting 76
4.10.2 Project Impacts 76
4.10.3 Mitigation Measures 77
4.11 Mineral Resources 78
4.11.1 Environmental Setting 78
4.11.2 Project Impacts 78
4.11.3 Mitigation Measures 78
4.12 Noise 79
4.12.1 Environmental Setting 79
4.12.2 Project Impacts 80
4.12.3 Mitigation Measures 84
4.13 Population and Housing 85
4.13.1 Environmental Setting 85
4.13.2 Project Impacts 85
4.13.3 Mitigation Measures 85

4.14 Public Services 86

4.14.1 Environmental Setting 86
4.14.2 Project Impacts 87
4.14.3 Mitigation Measures 88

4.15 Recreation 89

4.15.1 Environmental Setting 89
4.15.2 Project Impacts 89
4.15.3 Mitigation Measures 89

4.16 Transportation/Traffic 90

4.16.1 Environmental Setting 90
4.16.2 Project Impacts 91
4.16.3 Mitigation Measures 92

4.17 Utilities and Service Systems 93

4.17.1 Environmental Setting 93
4.17.2 Project Impacts 94
4.17.3 Mitigation Measures 97

4.18 Mandatory Findings of Significance 98

4.18.1 Existing Conditions 98
4.18.2 Project Impacts 98

Section 5.0 References 103

TABLES

Table **Page**

4-1 California and National Ambient Air Quality Standards 27
4-2 Designations of Criteria Pollutants in the Antelope Valley Portion of the Mojave Desert Air Basin 28
4-3 AVAQMD Criteria Pollutant Significant Emissions Thresholds 30
4-4 Estimated Maximum Daily Construction Emissions 31
4-5 Estimated Annual Construction Emissions 32
4-6 Estimated Annual Operational Emissions 32
4-7 Vegetation Types 35
4-8 Special Status Plant Species Known to Occur in the Project Vicinity 38
4-9 Special Status Wildlife Species Known to Occur in the Project Vicinity 39
4-10 Cultural Resources Sites Within One Mile of the Project Site 46
4-11 Global Warming Potentials and Atmospheric LIfetimes 60
4-12 Typical Maximum Construction Noise Levels 82
4-13 County of Los Angeles Construction Equipment Noise Limits 83
4-14 Cumulative Projects 99

EXHIBITS

Exhibit		Follows Page
3-1	Local Vicinity	8
3-2	Aerial Photograph	8
3-3	Solar Array Configurations	12
3-4	Types of Mounting Structures	12
3-5	Electrical Connection Points	12
4-1	Site Photograph Locations	22
4-2	Site Photographs	22
4-3	Site Photographs	22
4-4	Site Photographs	22
4-5	Site Photographs	22
4-6	Site Hazards and Soil Types	36
4-7	Vegetation Types	36
4-8	Off-site Area Vegetation Types	36
4-9	Off-site Avoidance Area	42
4-10	ALUP Compatibility Zones	66
4-11	Fox Airfield Air Traffic Patterns	68
4-12	Lancaster General Plan Land Use	76
4-13	Lancaster Zoning	76
4-14	Noise Contour	80
4-15	Future Noise Contour	80

APPENDICES

Appendix	
A	Air Quality and Greenhouse Gas Analysis: URBEMIS Model Data
B-1	Archaeological Records Search and Native American Consultation
B-2	Paleontological Records Search
B-3	Historical Resources Assessment
C	Geotechnical Engineering and Engineering Geologic Evaluation Report
D	Phase I Environmental Site Assessment

SECTION 1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Initial Study/Mitigated Negative Declaration (IS/MND) is a public document designed to provide the public, responsible/trustee agencies, and other local and State governmental agencies with an analysis of the potential environmental consequences of project implementation. This IS/MND has been prepared to address the environmental effects associated with implementing the proposed County of Los Angeles (County) Solar Energy Project (project).

This Executive Summary presents a brief overview of the proposed project, a tabular summary of the potential environmental effects of the project, and the recommended mitigation program that would reduce potential impacts to less than significant. The reader is referred to the full text of this IS/MND, as well as the technical appendices, for a complete description and analysis of the potential environmental effects of the project.

1.2 PROJECT SUMMARY

The proposed Solar Energy Project would be developed on approximately 63 acres of undeveloped portions of 2 County-owned parcels within the City of Lancaster. The project site is located adjacent to West Avenue I between 50th Street West and 60th Street West. The project site is immediately surrounded on the east and west by several County facilities, including the Mira Loma Detention Center and the High Desert Health System (HDHS) Multi-Service Ambulatory Care Center (MACC) to the west, and the County Probation Department Challenger Memorial Youth Center (CMYC) and County Animal Care and Control- Lancaster Shelter to the east. Vacant undeveloped land is located to the north of the project site across from West Avenue I, and a small portion of vacant land is located to the east of the project site, just south of the CMYC. The California State Prison-Los Angeles County (CSP-LAC) is located to the south.

The County is proposing to develop the project site with a solar energy facility with a system size of 2 to 4 megawatts (MW). The initial 2-MW facility will consist of two separate 1-MW solar photovoltaic systems, one of which will serve the Mira Loma Detention Center and the other to serve the CMYC. A potential for installation of 2 additional MW of solar system capacity is possible on the project site at a future phase of development. This Initial Study addresses the potential environmental impacts from both phases of the Solar Energy Project.

The exact configuration of the solar array design is currently unknown and would be determined under consultation between the County and its solar engineering consultant. As such, it is anticipated that the development of the solar array could be located anywhere within the approximate 63-acre site. Therefore, the Initial Study assumes that the entirety of the project site could be developed with solar panels or appurtenant facilities. The proposed project would consist of the following components: (1) solar photovoltaic (PV) panels; (2) mounting structures; (3) power conditioners; (4) site access road(s); and (5) perimeter fencing and security lighting. The proposed project is planned for construction in late 2011, with the facility in operation by mid-2012. The additional 2-MW solar installation, if approved, would be planned for construction in 2012 or later.

Construction of the Solar Energy Project would also include electrical connections to the Mira Loma Detention Center and CMYC, with underground conduits and/or electrical poles to be placed in Off-site Areas extending from the northwestern boundary of the site to the main switchgear facilities at the Mira Loma Detention Center and extending from the eastern boundary of the site to the main switchgear facilities at the CMYC (along the southern boundary of the CMYC).

1.3 SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS

Implementation of the proposed Solar Energy Project would result in potentially significant impacts to Biological Resources, Cultural Resources, Hazards/Hazardous Materials, Hydrology/Water Quality, Noise and Utilities prior to mitigation. Although the impacts were not considered potentially significant, mitigation measures were included for Aesthetics and Public Services to further reduce potential impacts. Implementation of regulatory requirements (RRs) and mitigation measures (MMs), as detailed in each environmental analysis presented in Section 4.0 of this IS/MND, would reduce all of the potentially significant impacts to a less than significant level. According to the CEQA Guidelines (Article 6), it is appropriate to prepare an MND for the proposed project because with incorporation of RRs and MMs, potentially significant environmental impacts would be eliminated or reduced to a less than significant level.

SECTION 2.0 INTRODUCTION

2.1 PURPOSE OF THE INITIAL STUDY

In accordance with the California Environmental Quality Act (CEQA) (*Public Resources Code* §§21000 et seq.) and its Guidelines (*California Code of Regulations* §§15000 et seq.), this Initial Study (IS) has been prepared as documentation for a Mitigated Negative Declaration (MND) for the proposed County of Los Angeles (County) Solar Energy Project (project), which would have a capacity of 4 megawatts (MW). This IS/MND includes a description of the proposed project, location of the project site, evaluation of the potential environmental impacts of project implementation, and recommended mitigation measures to lessen or avoid impacts on the environment.

Pursuant to Section 15367 of the State CEQA Guidelines, the County is the lead agency for the project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. In addition to addressing the potential environmental impacts that would result from the proposed project, this IS/MND serves as the primary environmental document for future activities associated with the Solar Energy Project, including all discretionary approvals requested or required to implement the project that are within the scope of the project evaluated in this IS/MND.

The County, as the lead agency, has reviewed and revised, as necessary, all submitted drafts and technical studies and has commissioned the preparation of this IS/MND to reflect its own independent judgment, including: (1) reliance on applicable County technical personnel and (2) review of all technical subconsultant reports. Data for this IS/MND was obtained from on-site field observations; discussions with affected agencies; review of available technical studies, reports, guidelines, and data; and specialized environmental assessments prepared for the project (i.e., biological resources, cultural resources, and hazards and hazardous materials). The County has the authority for project approval and adoption of this IS/MND.

2.2 SUMMARY OF INITIAL STUDY FINDINGS

Section 4.0, Environmental Checklist Form, discusses the potential environmental effects of the proposed project and the recommended mitigation program, including regulatory requirements (RRs) and mitigation measures (MMs) that would reduce all potential impacts to levels considered less than significant. RRs are based on local, State, or federal regulations or laws that are frequently required independent of CEQA review, yet also serve to offset or prevent certain impacts. Because RRs are incorporated into the project, either in the project design or as part of project implementation, they do not constitute mitigation measures. According to CEQA Guidelines, Section 15370, “mitigation” includes the following:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

Implementation of the proposed Solar Energy Project would result in potentially significant impacts to Biological Resources, Cultural Resources, Hazards/Hazardous Materials, Hydrology/Water Quality, Noise and Utilities prior to mitigation. Although the impacts are not considered potentially significant for Aesthetics and Public Services, mitigation measures were included to further reduce potential impacts. Implementation of the MMs, as detailed in each environmental analysis presented in Section 4.0 of this IS/MND, would reduce all of the potentially significant impacts to a less than significant level.

According to the CEQA Guidelines, it is appropriate to prepare an MND for the proposed project because with incorporation of RRs and MMs, potentially significant environmental impacts would be eliminated or reduced to a less than significant level.

2.3 PROJECT APPROVAL

The IS/MND has been submitted to potentially affected agencies. A Notice of Intent to Adopt an MND was published in the Antelope Valley Press newspaper on May 16, 2011 and is on file at the Los Angeles County Registrar-Recorder/County Clerk in the City of Norwalk. The IS/MND and associated technical reports are available for public review, and the Initial Study is available for viewing on http://www.colapublib.org/libs/lancaster/ and at the Lancaster Regional Library, located at 601 W. Lancaster Boulevard, Lancaster, CA 93534-3398.

There will be a 30-day public review period for the IS/MND, in accordance with Section 15073 of the CEQA Guidelines. In reviewing the IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which the potentially significant effects of the proposed project are avoided or mitigated through components of the project. Comments on the analysis contained herein may be sent to Mr. Peter Burgis via email at pburgis@ceo.lacounty.gov, or mailed to the County address listed below.

Mr. Peter Burgis
County of Los Angeles Chief Executive Office
754 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

In accordance with Section 15074 of the CEQA Guidelines, prior to approving the project, the County of Los Angeles Board of Supervisors will consider the proposed MND together with any comments received during the public review process. The Board will adopt the proposed MND only if it finds that that there is no substantial evidence that the project will have a significant effect on the environment.

2.4 ORGANIZATION OF THE INITIAL STUDY

The IS/MND is organized into the following sections:

Section 1, Executive Summary: This section provides a summary of the project description, project impacts, and mitigation to reduce those impacts to less than significant levels.

Section 2, Introduction: This section provides an introduction to the IS/MND process and an outline of the IS/MND.

Section 3, Environmental Setting and Project Description: This section provides a description of the project location, the existing environmental setting of the project area, and the proposed project description (i.e., physical and operational characteristics).

Section 4, Environmental Checklist Form: The completed CEQA checklist form provides an overview of the potential impacts that may result from proposed project implementation. The environmental checklist form also includes "mandatory findings of significance", per CEQA requirements. This section contains the analysis of environmental impacts identified in the environmental checklist and identifies mitigation measures to eliminate potential significant effects or reduce them to a less than significant level.

Section 5, References: This section identifies the references used in preparation of the IS/MND.

This page intentionally left blank.

SECTION 3.0 ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

3.1 ENVIRONMENTAL SETTING

3.1.1 PROJECT LOCATION

The proposed project is located on County of Los Angeles (County)-owned property within the City of Lancaster (City). The City is located within the Antelope Valley (in the northern portion of Los Angeles County), which is bound by the Tehachapi Mountains to the northwest and the foothills of the San Gabriel Mountains to the southwest. The City is approximately 70 miles north of downtown Los Angeles and immediately north of the City of Palmdale.

The site for the proposed Solar Energy Project encompasses approximately 63 acres located south of West Avenue I between 50th Street West and 60th Street West, at latitude 34°42′03.45″N and longitude 118°13′11.74″W. Regional access to the project site is provided by the Antelope Valley Freeway (State Route [SR] 14), which starts at Interstate 5 (I-5) in the Santa Clarita Valley area, running northeasterly through the Angeles National Forest, then northerly through the Cities of Palmdale and Lancaster. The project site is located 3.3 miles to the west of SR-14 on West Avenue I. Local access would be provided by an existing driveway on West Avenue I, adjacent to the Mira Loma Detention Center, and through the driveway of the High Desert Health System (HDHS) Multi-Service Ambulatory Care Center (MACC) from 60th Street West.

Exhibit 3-1 depicts the Local Vicinity of the project site. The closest HDHS MACC buildings are approximately 300 feet west of the project site boundary and the closest Mira Loma Detention Center buildings are approximately 30 feet west of the project site boundary.

3.1.2 PROJECT SITE CHARACTERISTICS

The 63-acre project site consists of undeveloped portions of two County-owned parcels. The project site contains no habitable buildings or structures, but does contain broken asphalt pavement in certain areas and structural remnants of an abandoned wastewater treatment system, presumably associated with the site's previous use as an airfield runway, as further discussed in Section 4.5 of this IS/MND.

The project site contains disturbed/dirt road crossings, drainage swales, and possibly buried electrical conduit lines. Three dirt roads cross the site, which are used by the County Sheriff's Department to patrol the perimeter of the Mira Loma Detention Center and surrounding areas. Aside from these occasional patrols, the project site is not used by any operations on the adjoining properties. Dirt piles and construction materials/waste is located adjacent to the southwestern corner of the project site near the HDHS MACC facility.

The project site is approximately 2,342 feet above mean sea level, with groundwater levels estimated to be approximately 60 feet below ground surface (Parsons 2010). The topography is relatively flat with no major distinguishing topographical features. On-site vegetation is limited to the disturbed saltbush scrub and ruderal (i.e., weeds and plants that grow in disturbed and/or poor soil conditions) vegetation communities. Non-native deciduous trees are present along West Avenue I and scattered near the eastern boundary of the site. Although the surrounding County and State facilities are fenced, the project site is not fenced and is currently accessible directly from West Avenue I.

It should also be noted that the proposed project would require the installation of underground conduits and/or above ground power lines to connect the proposed project to the Mira Loma Detention Center and the Challenger Memorial Youth Center (CMYC). These electrical conduits would be located outside the project site boundaries (in areas referred to as Off-site Areas). The Off-site Area to the Mira Loma Detention Center would consist of a linear area approximately 470 feet long extending from the northwestern corner of the site to the main switchgear facilities along West Avenue I. The Off-site Area to the CMYC would consist of a linear area approximately 1,100 feet long extending from the eastern boundary of the site, along the southern boundary of the CMYC.

3.1.3 SURROUNDING LAND USES

County and State Property

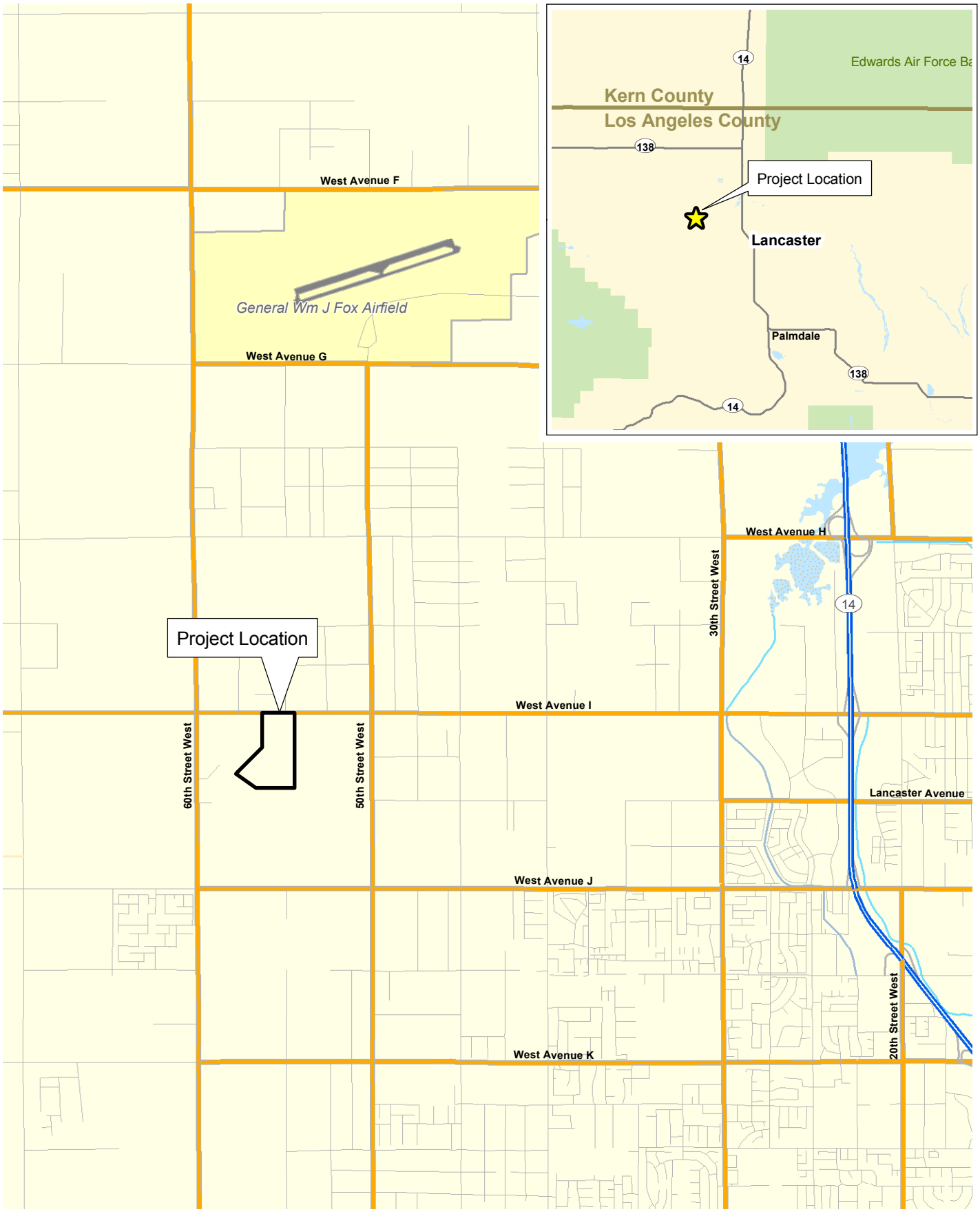
The approximate 63-acre project site is surrounded on the east and west by County-owned property and facilities, including the Mira Loma Detention Center and the HDHS MACC to the west, and the County Probation Department Challenger Memorial Youth Center (CMYC), County Animal Care and Control-Lancaster Shelter, and vacant undeveloped land to the east. The CMYC facility is approximately 160 feet east from the project site boundary, while the Lancaster Shelter is approximately 1,056 from the project site boundary. The California State Prison, Los Angeles County (CSP-LAC) is approximately 262 acres in size and the nearest CSP-LAC building is located approximately 400 feet south of the project site. There is no development on the privately-owned land to the north of the project site. The approximately 620-acre "block" of County and State properties, located within the bounds of West Avenue I, 50th Street West, West Avenue J, and 60th Street West, is zoned by the City of Lancaster as P-Public, and designated as "Public Use" in the City's General Plan. Exhibit 3-2 depicts an aerial view of the project site and surrounding areas.

Structures located within the 620-acre block are partially built on the former site of the Polaris Flight Academy and War Eagle Field, which opened in 1941 and was used as a training facility for U.S. Air Force cadets. The flight academy buildings generally sat idle from 1945 through 1954 when the Los Angeles County Sheriff's Department and the Department of Hospitals opened the Mira Loma Custody Facility for inmates with tuberculosis, which subsequently closed in 1979. In 1983, the Mira Loma facility re-opened due to jail overcrowding, closed in 1993 due to County budget cuts, and re-opened in 1997 to house the U.S. Immigration and Naturalization Service (INS) detainees awaiting deportation hearings (Freeman 2009).

The Mira Loma Detention Center is owned by the County and is run by the Los Angeles County Sheriff's Department under contract to the INS. The facility functions as a regular County jail, with the exception that the individuals are identified as detainees. The facility has a design capacity of 1,200 inmates, and currently maintains a detainee population of 800 (Parsons 2010).

The HDHS MACC is an out-patient medical services facility that provides primary care, urgent care, specialty services, and outpatient surgery services to County residents. During the 2008/2009 fiscal year, the facility had a total of 64,950 outpatient visits, or an average of 178 visits per day. The County is currently evaluating the possibility of relocating the HDHS MACC services to a new location within the City, which would eliminate the medical services currently provided in this County facility.

The County Animal Care and Control-Lancaster Shelter is a municipal animal shelter for the unincorporated areas of the County of Los Angeles, and provides animal adoption services, spaying/neutering, vaccinations, and pet health exams.



D:\Projects\CoLACAO\J006\mxd\Ex_LV.mxd

Local Vicinity

Exhibit 3-1

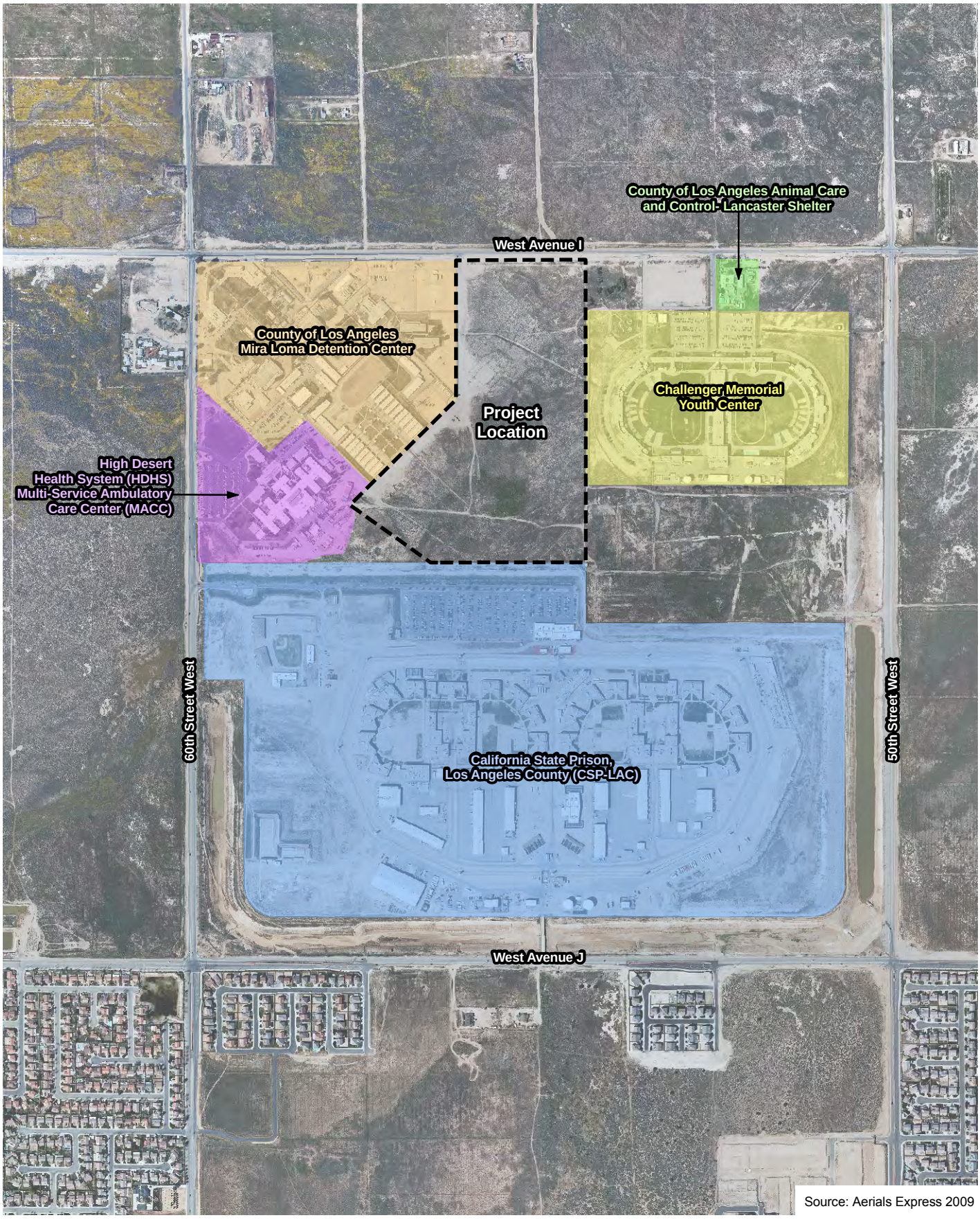
County of Los Angeles Solar Energy Project

N W E S

4,000 2,000 0 4,000 Feet

BonTerra CONSULTING

(Rev 05/18/10 CJS) PAS/Projects/CoLACAO/J006/Graphics/MND/Ex3-1_LV.pdf



D:\Projects\CoLACAO\J006\mxd\Ex_aerial.mxd

Aerial Photograph

Exhibit 3-2

County of Los Angeles Solar Energy Project

N W E S

1,000 500 0 1,000 Feet

BonTerra CONSULTING

(Rev 05/19/10 CJS) PAS/Projects/CoLACAO/J006/Graphics/MND/Ex3-2_aerial.pdf

The Los Angeles County Probation Department provides detention for delinquent minors in juvenile halls and control/rehabilitation programs in "camps". The CMYC is the largest of several camps operated by the County Probation Department, with the goal of providing treatment, care, custody, and training for the rehabilitation of delinquent minors as wards of the Juvenile Court for an average period of 20 weeks. The facility has a capacity of 660 beds (Lancaster 2009a).

The CSP-LAC is located on the southern half of the block and is owned and operated by the State of California. The facility opened in 1993 and covers approximately 262 acres. The site is surrounded on the east, south, and west by a County-owned large open storm drain channel. Both short-term and long-term housing and services are provided for men who have been convicted of felonies, classified as minimum, high-medium, and maximum custody inmates. As of fiscal year 2006/2007, the facility had a total employment of approximately 1,500 staff, with a design capacity of 1,350 beds and approximately 4,760 inmates (CDCR 2010).

Adjacent Properties

As depicted in Exhibit 3-2, lands adjacent to the approximate 620-acre block of County and State properties are largely undeveloped. The closest fully developed property to the north of the project site is the General William J. Fox Airfield, located approximately 2.0 miles away. Urban development associated with the suburbs of the City of Lancaster is located to the south of West Avenue J in relatively new residential tracts. Scattered rural residential are found to the north of West Avenue I, west of 60th Street West, and east of 50th Street West. A discussion of the City of Lancaster's zoning and land use designation for surrounding properties is provided in Section 4.10, Land Use and Planning.

3.2 PROJECT BACKGROUND

The Antelope Valley comprises the western edge of the larger Mojave Desert, which is an arid desert area that provides ideal conditions for the capture of solar energy. Utility companies, public and private electric providers, and individual users have proposed and constructed various solar energy projects in the Mojave Desert. The County Energy and Environmental Policy, adopted by the Board of Supervisors of the County of Los Angeles on January 16, 2007, sets forth guidelines for the development and enhancement of energy conservation and environmental programs within County departments. The County has set forth the goal of reducing energy consumption in County facilities by 20 percent by the year 2015. This goal is consistent with the California Governor's Green Building Executive Order (S-20-04) and the State Energy Action Plan, which establishes similar goals for the State.

In order to further its energy conservation goals, the County is proposing a Solar Energy Project to supplement the electrical needs of certain County facilities with renewable energy. By generating renewable energy which will be used to offset a portion of its Southern California Edison utility grid supplied electricity use at adjacent County facilities, the County will reduce the net amount of purchased electrical energy that may otherwise be generated with non-renewable resources such as gas, oil, and/or nuclear sources. In addition, the use of solar energy would reduce air pollution and greenhouse gas emissions generated by the burning of fossil fuels and/or the use of water at central power generation plants.

As the County will use a design-build method of delivery for the project, details of the project design have not been decided and will be dependent upon various site constraints and/or funding factors. As a result, various alternative solar array designs and technologies are considered in this IS/MND to provide the County with flexibility for project implementation and to provide a conservative analysis that considers various project scenarios.

3.3 PROJECT DESCRIPTION

The County is proposing to develop the project site with solar PV facilities with a total system size of 2 to 4 megawatts (MW). No other project locations for the solar facilities are considered. It is anticipated that the electricity generated by the proposed initial two 1-MW systems installed will be fed to the electrical grid through the Southern California Edison (SCE) meters located at two adjacent County facilities (1 MW each), the Mira Loma Detention Center and the CMYC, and will offset a portion of electrical usage at these facilities. Electricity produced from the additional 2 MW, if constructed, would also be connected to the electrical grid through either or both of the SCE meters at these sites. This Initial Study addresses the potential environmental impact of both phases of the proposed Solar Energy Project, which includes the 2 MW planned for the initial phase and an additional 2 MW planned as a future phase.

The exact configuration of the solar array design is currently unknown and would be determined under consultation between the County and its Solar Engineering Consultant. As such, it is anticipated that the development of the solar array could be located anywhere within the approximately 63-acre site. Therefore, this Initial Study assumes that the entirety of the project site could be developed with solar panels or appurtenant facilities.

3.3.1 PROJECT COMPONENTS

The proposed project would consist of the following components: (1) solar PV panels; (2) mounting structures; (3) power conditioners[1]; and (4) site access and fencing. These project components are described below.

Solar PV Panels

It is anticipated that the project would be constructed with PV panels consisting of one of the following types of solar cells: (1) silicon (Si), including single-crystalline Si, multicrystalline Si, and amorphous Si; (2) polycrystalline thin films, including copper indium diselenide (CIS), cadmium telluride (CdTe), and thin-film silicon; or (3) single-crystalline thin films, including high-efficiency materials such as gallium arsenide (GaAs).

Individual solar cells would be connected together to form larger units called modules or panels. The most common PV panels are made of silicon and are described below:

- Monocrystalline modules use solar cells that are cut from a single crystal of silicon into wafers and have a smooth texture.
- Polycrystalline (or multicrystalline) modules use solar cells that are cut from a block of silicon and have a speckled reflective surface.
- Flexible Thin Film modules are made by placing a thin film of amorphous (non-crystalline) silicon on a variety of surfaces (glass, plastic or metal).
- String Ribbon modules use ribbons of silicon that are formed by strings from molten silicon.
- Sheets refer to solar cells that are painted or printed on flexible plastic sheets.

[1] "Power conditioners" control and condition electric power and may be used to convert a direct current (DC) into an alternating current (AC), to change voltage or current magnitude, or to change the frequency of an alternating current.

It is anticipated that the proposed Solar Energy Project would likely consist of flat-plate PV panels. A typical flat-plate panel has a transparent cover of plastic or glass; an encapsulant material to protect the solar cells; a rear layer; and a frame. The front cover would have an anti-reflection coating and/or texturing to reduce the reflection of sunlight and keep the light within the cells. While textured surfaces reduce reflection, they can also reduce light absorption due to dust particles on the surface. The encapsulant would consist of thin sheets of ethyl vinyl acetate (EVA) that are inserted between the solar cells and the top and rear surfaces to bind the module. The rear layer is a thin polymer sheet and an aluminum frame would provide structural support.

Panel sizes may be manufactured into various shapes and sizes, but are commercially available as rectangular panels with widths ranging from 1 to 4 feet and lengths ranging from 2 to 6 feet. The PV panels could be arranged in a grid to form a solar array on the project site and would be connected in series (to increase voltage) or in parallel (to increase current output). The number of panels on the array would depend on the power provided by each panel and the connection between panels.

Photographs of different solar array configurations are presented in Exhibit 3-3. Photograph 1 shows rows of solar panels spaced relatively far apart on individual poles and concrete footings, with the associated equipment building. Photograph 2 shows the rear view of Photograph 1 and perimeter fencing. Photograph 3 shows panels in a linear configuration spaced relatively closely. Photograph 4 shows a large solar array on a tracking system. Photograph 5 shows panels with concrete foundations set upon the topsoil.

Mounting Structures

The PV panels would be placed on mounting structures, which may include fixed, fixed with adjustable tilt angles, manual tracking, passive tracking, or active trackers. The mounting structures to be used are ultimately dependent upon the design configuration preferred by the County and its Solar Engineering Consultant.

Fixed mounts would tilt the panels at a fixed angle for maximum sun exposure, generally facing south with a tilt equal to the latitude of the site plus around 15 degrees for optimum performance in winter or minus 15 degrees for optimum performance in summer. Adjustable tilt and manual tracking systems allow for manual adjustment of the angle/tilt of the PV panels during different times of the day or by season. The objective is to keep the panels as close to perpendicular as possible to the sun. Passive and active trackers have single- or dual-axis mounting arms that adjust the PV panels to face the sun directly from early morning to late afternoon and through the different seasons.

The panels may either be ground-mounted using racks or A-frames, or pole-mounted using individual or multiple poles. Ground-mounted racks are placed upon the ground surface on either gravel or graded soil. Larger solar panels may require pole-mounting, which involves the use of metal pipes that are secured into the ground and may require below-grade, concrete foundations.

The height of the panels would depend on the ultimate project design, the need to avoid shading from nearby structures or vegetation, or the need to keep animals away from the panels. Given the lack of shade from trees or vegetation on-site, as well as the distance between the project site and adjacent buildings that could cast shadows, it is expected that the panels would have a low profile, likely not exceeding 20 feet above the ground surface.

Photographs of various types of mounting structures are presented in Exhibit 3-4. Photograph 1 shows a stacked steel frame mounting system. Photograph 2 shows the rear sides of panels joined together on a tracking system and set upon graded soil. Photograph 3 shows individual panels with a single-pole mount. Photograph 4 shows panels on a fixed (non-tracking) rack. Photograph 5 shows adjustable mounts supporting two panels each. Photograph 6 shows the general extent of earthmoving that may be required for installation of a larger, single-pole mounting system, such as the ones illustrated in Photographs 5, 7, and 8.

Power Conditioners

To transfer the electricity from the solar array to the County building's main utility meters, power conditioners are needed, which include regulators and inverters. Regulators control the voltage and current output at a constant level to maximize output (for charging batteries). Inverters convert the direct current (DC) generated by the solar array into alternating current (AC) in order to match the electricity in the utility's network and are likely to be located within close proximity to each 1 MW installation. Switchgear to safely transfer the electricity to the utility network will be installed at the electrical connection points at the Mira Loma and CMYC facilities.

Several equipment buildings would need to be constructed for the proposed project. For the purposes of the analysis presented in this IS/MND, it is assumed that an approximate 20-foot by 60-foot concrete pad would be constructed on site to house up to three inverters for each 1 MW of installed system capacity. The equipment buildings would fully surround the equipment, and would be secured to prohibit unauthorized access. The buildings may contain a regulator, a charge controller, and a battery backup system to store PV electricity for later use. In addition, an assortment of other hardware; wiring, overcurrent, surge protection, and disconnect devices; and other power processing equipment could be located in the equipment buildings. From the inverters, electrical conduits would run underground toward the main switchgear facilities at the Mira Loma Detention Center and to the main switchgear facilities of the CMYC where favorable underground conditions exist. To the extent it is necessary to avoid underground obstructions or existing biological resources, above ground conduit or power lines strung on utility poles may be used to connect to the main switchgear facilities.

The electrical connection points at the Mira Loma Detention Center and CMYC facilities are depicted on Exhibit 3-5. Electrical connection to the Mira Loma Detention Center would extend into the Off-site Area from the northwestern corner of the project site westerly to the detention center's main switchgear facilities along West Avenue I. Electrical connection to the CMYC would run easterly within the Off-site Area along the CMYC's southern fence line and then north into the CMYC's main switchgear facilities.

Access Roads and Fencing

Access Roads

Direct access to the solar facilities would be provided from the existing driveway on West Avenue I (adjacent to the northeastern corner of the Mira Loma Detention Center). Currently, the paving on the driveway from West Avenue I stops at the beginning of the perimeter fencing associated with the Mira Loma Detention Center. The driveway then becomes a graded and compacted dirt/gravel road that continues along the double-fenced eastern boundary of the Detention Center. It is anticipated that this roadway would be used as-is for general site access (photographs of this roadway are shown in Section 4.1, Aesthetics, Exhibit 4-5).

Site access could also occur from one of the two main HDHS MACC entrance driveways on 60th Street West. From the parking lot associated with the HDHS MACC, access to the project site











D:\Projects\CoLACAO\J006\Graphics\Ex_solar_configs.ai

Solar Array Configurations

Exhibit 3-3

County of Los Angeles Solar Energy Project

BonTerra CONSULTING



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8

D:\Projects\CoLACAO\J006\Graphics\Ex_solar_mounts.ai

Types of Mounting Structures

Exhibit 3-4

County of Los Angeles Solar Energy Project

BonTerra CONSULTING

(Rev 05/20/10 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex3-4_solar_mounts.pdf



D:\Projects\CoLACAO\J006\mxd\Ex_connection_points.mxd

Electrical Connection Points

Exhibit 3-5

County of Los Angeles Solar Energy Project

N
W E
S

650 325 0 650

Feet

BonTerra CONSULTING

(Rev 04-19-11 WAD) R:\PAS\Projects\CoLACAO\J006\Graphics\MND\Ex3-5_connection_points.pdf

would occur by taking the southernmost internal driveway to the equipment storage area in the rear of the HDHS MACC, which is adjacent to an existing dirt access road that currently traverses the southern portion of the project site. It is anticipated that the existing site access points will be adequate for both construction-related and long-term operational access to the project site.

In addition to, or in replacement of, the existing dirt roadways that traverse the project site, new at-grade internal road(s) may be constructed to provide access to the internal solar facilities and equipment buildings located within the project site. It is anticipated that internal roads would be dirt or gravel, but not paved or otherwise improved.

No parking lots or habitable structures/buildings would be permanently constructed on the site as part of the project. During construction, two temporary construction trailers each of an approximate size of 12-foot by 60-foot and three storage units of approximately 12-foot by 25-foot dimensions may be placed on the site. Temporary power lines would be installed to provide power to these trailers. Portable toilets will be provided on site for construction firm personnel and County staff. All temporary construction equipment would be removed following completion of construction activities. Aside from the foundations for the approximate 20-foot by 60-foot equipment building pads for each MW of installed capacity and the potential for minor foundation areas associated with the pole-mounting structures (if included in the project design), the 63-acre project site would remained unpaved and largely pervious to storm water runoff.

Fencing

As previously stated, the County and State facilities that surround the project site on the west, south, and east, are all fenced. The project site is not currently fenced. In order to ensure the security of the solar energy facilities, it is anticipated that chain-link fencing will be required around the perimeter of the solar facilities, in areas where no fencing is currently provided. The exact location of the fencing on the project site will depend on the location of the solar facilities which is not yet determined.

Security lighting currently exists along the fencing associated with the Mira Loma Detention Center and is included within all adjacent County and State facilities. Perimeter lighting to deter theft and/or vandalism will be installed around the solar facilities. Light standards would be placed at all access gates and at 50-foot intervals periodically along the solar facility perimeter fencing. Lighting is to be solar-powered with battery backup, so electricity will not need to be supplied to operate lighting.

Utilities

Because the proposed solar energy facilities would not include any uses that would generate wastewater or create a demand for electricity, natural gas or communication facilities, no new utility lines would be installed or extended into the site with the exception of temporary power lines, which will supply electricity to the on-site construction trailers during project construction. These lines would be removed following completion of construction activities. (Electrical connections from the project to the Mira Loma Detention Center and CMYC are discussed above.) Because only negligible impervious surfaces would be created and only surface grading would be required, resulting in negligible amounts of additional surface storm water runoff, no new storm drain facilities would be constructed.

Grading and Construction Activities

On-Site Activities

While the configuration and specific location of the solar energy facilities has not been defined, it is assumed that the first 2 MW would occupy a 20-acre area on the site and the second 2 MW would occupy another 20-acre area. Thus, a total of 40 acres of the 63-acre site would be improved; but this 40 acres could be anywhere on the site. In addition, Off-site Areas northwest of the site within the Mira Loma Detention Center and along the southern boundary of the CMYC are also considered in the impact analysis. Depending on the topical issue, the analysis considers impacts to the entire 63-acre site and Off-site Areas as a worst-case scenario or only the impacts from a 40-acre disturbance area, as considered in the air quality analysis. This approach provides a more realistic scenario for the discussion of project impacts.

The terrain on the project site is generally flat, but is not adequately level for the mounting of the solar facilities or the concrete pads of the equipment buildings. Therefore, vegetation clearing and surface grading would be required. After the site has been grubbed and cleared of vegetation and debris, minor grading for the internal road(s), building pad, and mounting structures would be conducted. Grading would include the removal of undulations in the terrain wherever required, in order to ensure the proper alignment and operation of the solar energy facilities. This may involve the removal of some of the existing broken asphalt on the project site if it occurs in areas that would hinder project development, such as the equipment buildings, roadways, or pole-mounting structures.

If it is determined that broken asphalt in the vicinity of the equipment buildings, roadways, trenching, or pole-mounting structures (if included in the project design) must be removed, the asphalt would need to be hauled off-site and disposed of. For purposes of analysis in this IS/MND, it is assumed that excavation of a maximum of 20 acres of asphalt and associated soil could be removed for project implementation. With the assumption of an average depth of 8 inches of material removed, some 21,512 cubic yards (cy) of debris would be removed. If 20-cy trucks are used to remove and dispose of the debris, a total of approximately 1,076 truck trips would be required. Grading and demolition activities are assumed to occur over the course of two months each, with grading starting one month after the start of demolition and continuing for one month after completion of demolition. Currently, the City of Lancaster does not have any designated truck routes. It is anticipated that construction traffic would travel eastward from the project site on West Avenue I and onto SR-14.

It is assumed that a maximum grading disturbance of five acres would occur in one day, concurrent with demolition. For purposes of estimating maximum reasonable worst-case daily emissions, it is assumed that 32 round-trip truck trips could occur in a single day to dispose of demolition debris with an additional 5 trips per day to import gravel for internal roads. The demolition/grading phase of construction activity is considered to be the most intense; the construction phase would not require as many daily truck trips. It was also assumed that 32 round-trip truck trips could occur in a single day to dispose of demolition debris with an additional 5 trips per day to import gravel for internal roads. The total volume of gravel imported was assumed to be 3,750 cy for each phase. In total, grading/demolition and construction activity on the project site is anticipated to require approximately 10 months for the first 2 MW and another 10 months for the second 2 MW.

As previously discussed, the exact project configuration, system size, and maximum amount of energy generated onsite is currently unknown and would be determined under consultation between the County and its Solar Engineering Consultant. For the purposes of this MND, a

conservative estimation of 4 MW constructed in one phase, potentially located on any portion of the 63-acre project site, is anticipated.

Construction would also require trenching or utility poles for electrical conduits to connect the solar array to the inverters in the equipment buildings, and the equipment buildings to the electrical systems of the Mira Loma Detention Center and the CMYC. Aboveground conduit or power lines strung on utility poles may also be used to connect to the main switchgear facilities. The exact alignment of the trenching and/or utility poles required to connect the equipment buildings to the main electrical switchgears at the two facilities is unknown due to uncertainty regarding underground conditions. However, it is assumed that the electrical conduits would require minor trenching in order to be placed underground, and/or footings for utility poles will need to be constructed where above-ground electrical lines will be used. These conduits would also be located in Off-site Areas that extend from the project site boundaries to the main switchgear facilities at the Mira Loma Detention Center and the CMYC.

The construction staging area would be located within the 63-acre project site and construction equipment and materials would be temporarily stored within this location. If required, additional construction equipment and/or solar energy facility materials may be stored on vacant land between the southern portion of the project site and the HDHS MACC facility storage area. The proposed project is planned for construction in late 2011, with the facility in operation by mid-2012. The additional 2-MW solar installation would be planned for construction in 2012 or later. This IS/MND analyzes the impacts of the 4-MW facility.

Off-Site Activities

Attaching the electrical conduits from the project site to the main electrical switchgears at the Mira Loma Detention Center and the CMYC (Exhibit 3-5) may use underground or aboveground conduits or utility poles or other support structures in areas where trenching is not feasible. Minor off-site trenching would be excavated to a depth of approximately 2 to 6 feet deep. As previously discussed, the exact locations of the trenching and/or utility poles are unknown and dependent upon the locations of the equipment buildings within the project site.

From the project site, off-site trenching or aboveground conduits at the Mira Loma Detention Center will be conducted on paved and/or highly disturbed areas within the County property. Off-site trenching or utility poles for electrical connection to the CMYC will be conducted along the southern perimeter of the CMYC, either along the perimeter fence on the south side of the facility, or along the southerly dirt road that runs parallel to the fence of the CMYC.

Off-site construction staging activities could potentially occur near the equipment storage area located behind the HDHS MACC facility and near the southwestern corner of the project site. It is not anticipated that any construction activities would be conducted within the City of Lancaster right-of-way along West Avenue I. Therefore, no easements or permits are anticipated to be required from the City of Lancaster.

3.3.2 OPERATIONAL CHARACTERISTICS

Operations and Maintenance

The solar facilities would not require full-time employees on site and are expected to involve only yearly visits for inspection, with additional visits of intermittent repairs. Maintenance of the solar energy facilities would be limited to occasionally washing of the PV panels using a truck with a water tank and sprayer approximately 1 to 4 times per year, depending on the accumulation of dust on the panel surfaces. This maintenance activity would be subcontracted

to a private company by the solar panel installer that would bring in a water truck to the site to wash the PV panels. Therefore, no connections to the existing groundwater well that currently provides water to the adjacent County facilities would be required.

If adjustable tilt and manual tracking systems are used, manual adjustments would need to be made approximately four times a year to change the tilt of the PV panels. Therefore, an additional maximum of 15 to 18 visits per year would be made by the solar panel installer under this option.

There is adequate parking on adjacent County facilities to accommodate the occasional maintenance vehicles. Parking lots associated with the Mira Loma Detention Center and the HDHS MACC on the west, as well as the CMYC and Lancaster Animal Shelter on the east are all able to accommodate regular visitors and provide ample parking facilities. These County facilities are adjacent to the project site.

As previously discussed, vegetation on the project site is minimal and consists of ruderal plant communities and scattered trees along the perimeter of the project site. Depending on the location of the solar array facilities, it is possible that on-site trees would need to be removed. Annual vegetation clearing at the site of the solar facilities may be required to ensure that weeds do not interfere with the mounting structures or other solar-associated facilities.

Grid Connection

The electricity generated by the solar array would offset a portion of the electricity currently provided by Southern California Edison (SCE) to the Mira Loma Detention Center and the CMYC. The solar facilities will be connected to the SCE electrical grid. It is anticipated that the solar energy facilities would only occasionally, for short periods, generate more electricity than demanded at the County facilities. During times when electrical generation would exceed usage by the County facilities, there would be a net flow of electricity onto the utility grid. Over the course of each billing period, SCE would provide the County a credit on the County's electricity bills for the electricity the solar facilities generate during the billing period (net metering). As previously discussed, the connection points to the County facilities are shown on Exhibit 3-5.

3.4 REGULATORY BACKGROUND FOR SOLAR ENERGY PROJECTS

In 2002, the California Senate adopted Senate Bill (SB) 1078 (later accelerated by SB 107 in 2006), which established California's Renewables Portfolio Standard (RPS). The RPS requires electric service providers to increase the use of eligible renewable energy resources by at least 1 percent of their retail sales annually until they reach 20 percent by 2010. Executive Orders S-14-08, issued on November 17, 2008, and S-21-09, issued on September 15, 2009, establish a further goal of 33 percent renewable energy use by 2020. The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) are jointly responsible for implementing this program.

The CPUC's central role is regulating utilities - and the water and electricity supply controlled by the utilities- and it is responsible for the implementation of RPS. The CPUC also provides a number of key incentives for the development of distributed power generation, including the California Solar Initiative (SB 1) and the Self Generation Incentive Program (SGIP).

California has set a goal to install 1,940 MW of new, customer-side solar PV projects by 2017 under the California Solar Initiative. The CPUC provides incentives for all solar installations,

except those in new homes, to meet this goal. The performance-based incentives encourage solar installation and other energy efficiency upgrades.

The SGIP provides incentives to support existing, new, and emerging distributed energy resources. The SGIP provides rebates for qualifying distributed energy systems installed on the customer's side of the utility meter. Qualifying technologies include wind turbines, fuel cells, and corresponding energy storage systems. In 2008, SGIP projects delivered over 718,000 megawatts per hour (MWh) of electricity to California's grid. Thermal cogeneration systems (fuel cells, engines, and turbines) provided over 63 percent of the electricity, while PV projects provided 27 percent.

As previously discussed, the Countywide Energy and Environmental Policy was the County's response for the need for energy conservation and reduction in greenhouse gas (GHG) emissions. The policy provides guidelines for developing energy conservation and environmental protection programs within existing County departments. It also directs the County to track its GHG emissions with the California Climate Action Registry and to reduce its facilities' energy consumption by 20 percent by the year 2015. Under this policy, the Los Angeles County Energy Program (LACEP) provides financing for energy efficiency or solar improvements; the County's Capital Project Program requires all new County buildings (>10,000 square feet) to be Leadership in Energy & Environmental Design (LEED) Certified at the Silver Level; and the County has pledged to be a "Cool County" by establishing a GHG emissions footprint, developing a GHG mitigation plan, working with local entities to reduce regional GHG emissions by 80 percent by 2050, and supporting federal legislation to raise Corporate Average Fuel Economy (CAFE) standards. In addition, the County has implemented various internal programs on energy conservation, water conservation, waste reduction and recycling, green purchasing and contracting, and alternative fuel vehicle purchasing.

On January 13, 2009, the County created an action plan for developing a Comprehensive Renewable Energy Program to develop renewable energy projects on existing County facilities and properties. The proposed Solar Energy Project implements this County program and the SGIP by developing a solar array that will provide energy to the County's Mira Loma Detention Center and CMYC, while creating a distributed energy system.

Solar thermal projects above 50 MW require approval from the CEC. Smaller projects are subject to approval by local authorities. The CEC is responsible for certifying solar facilities as eligible renewable resources for the RPS. Solar energy projects proposed in the desert area on Bureau of Land Management (BLM) land require approval from the BLM. Since the proposed solar array project would have less than 50 MW of capacity and would be located on County land, it would not require BLM or CEC approval. Also, the project would not directly supply power to the SCE, but would serve the adjacent County facilities. Thus, it does not need to be certified by the CEC as an eligible renewable resource.

Aside from its programs to comply with the RPS, SCE promotes self generation by customers. Self-generation is intended to provide emergency generation during utility power outages; meet on-site needs for steam or another form of thermal energy; generate power during peak demand when SCE power is more costly; utilize clean energy and reduce pollution; and improve the reliability and power quality of SCE's system. Self-generation also allows net metering that provides the customer with credit for excess electricity that is produced on-site.

Because the project is adjacent to the California State Prison- Los Angeles County (CSP-LAC), the IS/MND will be provided to the State Clearinghouse for review by the California Department of Corrections.

3.5 ANTICIPATED PROJECT APPROVALS/RESPONSIBLE AGENCIES

The County of Los Angeles is the Lead Agency for the proposed Solar Energy Project; no other agencies have jurisdiction or approval authority over the construction or operation of the proposed project. In Los Angeles County, the Regional Planning Commission is given the responsibility for coordinating the airport planning of public agencies within the County and functions as the Los Angeles County Airport Land Use Commission (ALUC). The proposed project will be subject to review by the ALUC for consistency with the General William J. Fox Airfield Land Use Compatibility Plan.

Implementation of the proposed Solar Energy Project would require the execution of a "Generation Facility Interconnection Agreement" between the County and Southern California Edison (SCE).

SECTION 4.0 ENVIRONMENTAL CHECKLIST FORM

This section includes the completed environmental checklist form. The checklist form is used to assist in evaluating the potential environmental impacts of the proposed project. The checklist form identifies whether the proposed project is expected to have potential significant impacts. Substantiation and clarification for each checklist response is provided below each environmental topic.

1. **Project Title:** Solar Energy Project

2. **Lead Agency Name and Address:** County of Los Angeles
   754 Kenneth Hahn Hall of Administration
   500 West Temple Street
   Los Angeles, California 90012

3. **Contact Person and Phone Number:** Mr. Peter Burgis
   County of Los Angeles Chief Executive Office
   (213) 974-1417

4. **Project Location:** An approximately 63-acre area located in the City of Lancaster, south of West Avenue I, between 60th Street West and 50th Street West (portion of APN 3203-014-901)

5. **Project Sponsor's Name and Address:** Same as item No. 2 above

6. **General Plan Designation:** P (Public Use)

7. **Zoning:** P (Public)

8. **Description of Project:** The County is proposing to develop the project site with solar energy facilities with a total system size of 4 megawatts (MW). The proposed project would consist of: (1) solar PV panels, (2) mounting structures, (3) power conditioners, (4) site access, and (5) perimeter fencing and security lighting. It is anticipated that the electricity generated by the proposed initial two 1-MW systems will be fed to the electrical grid through the SCE meters located at two adjacent County facilities (1 MW each), the Mira Loma Detention Center and the CMYC, to offset a portion of electrical usage at these facilities. Electricity produced from the additional 2 MW, if constructed, would also be connected to the electrical grid through either or both of the SCE meters at these sites. Electrical connections would be provided from the equipment buildings to the main switchgear facilities of the Mira Loma Detention Center and the CMYC, which would go through Off-site Areas extending from the northwestern boundaries of the site to the Mira Loma Detention Center) and from the eastern boundary of the site to the CMYC (along the southern boundary of the CMYC).

9. **Surrounding Land Uses and Setting:** The approximately 63-acre County-owned project site is surrounded on the east and west by several County facilities, including the Mira Loma Detention Center and the High Desert Health System Multi- Service Ambulatory Care Center to the west, and the County Probation Department Challenger Memorial Youth Center, County Animal Care and Control- Lancaster Shelter, and vacant undeveloped land to the east. The California State Prison, Los Angeles County (CSP-LAC) is located to the south of the project site. The area north of the project site is undeveloped. The site is relatively flat, with no major distinguishing topographic features and limited ruderal vegetation.

10. **Other Public Agencies Whose Approval is Required:**

    Airport Land Use Commission

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated on the following pages.

☐ Aesthetics	☐ Agriculture and Forest Resources
☐ Air Quality	☒ Biological Resources
☒ Cultural Resources	☐ Geology and Soils
☐ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials
☒ Hydrology and Water Quality	☐ Land Use and Planning
☐ Mineral Resources	☒ Noise
☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation/Traffic
☒ Utilities and Service Systems	☒ Mandatory Findings of Significance

DETERMINATION:

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 to 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 of Lead Agency Representative — Date: 5/13/11

Peter Burgis
Printed name

County of Los Angeles
Agency

4.1 AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

4.1.1 ENVIRONMENTAL SETTING

Scenic vistas in the area include views of the San Gabriel Mountains to the south, Quartz Hill to the south, the Fairmont and Antelope Buttes to the southwest, Piute Ponds to the northeast, and Little Rock Wash to the east. None of these scenic vistas are visible from the project site, with the exception of the San Gabriel Mountains to the south. Based on site reconnaissance, there are no scenic vistas or other scenic resources in the vicinity of the project site. Exhibit 4-1 identifies the locations of several photographs of the site. Locations A and B on Exhibit 4-2 identify the existing conditions on the site, including extent and type of vegetative cover, disturbed soils, and lack of existing buildings and structures. Location C on Exhibit 4-3 also depicts the undeveloped project site, with the CMYC in the background.

The visual character of the surrounding land uses is generally consistent among the County and State facilities. The adjacent properties are generally single-story facilities with an institutional character, minimal ornamental landscaping, and ample surface parking with an emphasis on functionality rather than aesthetic design or architectural features. Fencing and security lighting are prominent visual components associated with the Mira Loma Detention Center, CSP-LAC, and CMYC. Property to the north of the project site is vacant and undeveloped, and reflects the same visual character as the project site itself.

According to the California Scenic Highway Mapping System, the project site is not adjacent to any officially designated or eligible State scenic highways. The *City of Lancaster General Plan* does not establish any scenic corridors. The Los Angeles County's Antelope Valley Community Plan identifies local roadways that could potentially serve as scenic routes. The nearest potential scenic routes include SR-14 and a segment of 60th Street West from Avenue M to Avenue K (Lancaster 2009a). The project site is not visible from these routes. The 63-acre project site is comprised of vacant land that is relatively flat with no major distinguishing topographical features, and on-site vegetation is limited to disturbed saltbush scrub and ruderal plant communities.

The project site is surrounded by existing County and State facilities that provide nighttime lighting, in addition to vehicle headlights. Adjacent lighting includes pole lights at the CMYC (see Exhibit 4-3) and State Prison (Location D of Exhibit 4-4), and perimeter lighting at the Mira Loma Detention Center (Location F of Exhibit 4-5).

4.1.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a, b) No Impact

As previously discussed, based on review of the California Scenic Highway Mapping System (Caltrans 2007), there are no officially designated or eligible State scenic highways near the project site vicinity. The *City of Lancaster General Plan* does not establish any scenic corridors. The *Los Angeles County's Antelope Valley Community Plan* identifies local roadways that could potentially serve as scenic routes. The nearest potential scenic routes include SR-14, located approximately 3.25 miles east of the project site, and a segment of 60th Street West from Avenue M to Avenue K, located approximately 1.5 miles southwest of the project site at the nearest point of the roadway segment (Lancaster 2009a). The project site is not visible from these routes due to distance and/or intervening development.

The City of Lancaster's General Plan 2030, Chapter 2, Plan for the Natural Environment (Lancaster 2009b) discusses local views of surrounding buttes and Quartz Hill and long-distance views of the San Gabriel Mountains and desert expanses as being scenic resources in the Lancaster area (Lancaster 2009b). The site is not located in or near these visual resources and the proposed project would not hinder views of these resources from any public viewsheds.

As discussed below in Section 4.4, Biological Resources, and as depicted in Exhibits 4-2 and 4-3, on-site vegetation consists of disturbed saltbush scrub and ruderal plant communities, with some scattered non-native deciduous trees along West Avenue I and at the eastern perimeter of the project site. Existing trees may be removed for project development if the proposed solar facilities would be located in these areas but the trees do not form a grove and do not constitute a scenic resource. The project site is immediately bound by developed lands to the east, south and west, which obstruct views of the site as part of a desert landscape and hides the site from views of the foothills, buttes, and open desert. The proposed solar array would not be taller than the adjacent buildings, and thus, would not obstruct views of the surrounding mountains and buttes from the vantage points surrounding the project site. Aboveground poles and electrical conduits would be located along West Avenue I and the southern boundary of the CMYC. These are not expected to be taller than the adjacent structures within the Mira Loma Detention Center and the perimeter wall of the CMYC and thus, would not obstruct views in the area.

As discussed below in Section 4.5, Cultural Resources, five on-site structures associated with a former aerobic wastewater treatment and water reclamation system have been identified as an historic resource. However, the treatment and reclamation system would not be considered a scenic resource (Location G of Exhibit 4-5). Additionally, as noted above, the project site is not within the viewshed of a designated scenic highway, roadway and/or vista. Therefore, there would be no impact to scenic vistas, scenic resources, or historic buildings associated with scenic highways or scenic vistas, and no mitigation is required.

c) Less than Significant Impact

The proposed project involves the installation of a solar array and related appurtenances on a currently vacant site. Thus, changes in the visual characteristics of the site would occur. The proposed PV panels on the site which would be placed on mounting structures are anticipated to be approximately 15 to 20 feet above the ground. Disturbed and exposed soils, ruderal vegetation, and possibly on-site trees would be replaced with numerous grids of PV panels throughout the site, equipment buildings, and chain-link fencing. This change in visual quality



Source: Aerials Express 2009

D:\Projects\CoLACAO\J006\mxd\Ex_photo_locations.mxd

Site Photograph Locations

Exhibit 4-1

County of Los Angeles Solar Energy Project

N
W E
S

500 250 0 500

Feet

BonTerra CONSULTING

(Rev 05/24/10 CJS) PAS/Projects/CoLACAO/J006/Graphics/MND/Ex4-1_photo_locations.pdf



Location A



Location B

Site Photographs

Exhibit 4-2

County of Los Angeles Solar Energy Project

BonTerra CONSULTING

(Rev 05/19/10 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex4-2_photosA.pdf

D:\Projects\CoLACAO\J006\Graphics\Ex_photosA.ai



Location C

D:\Projects\CoLACAO\J006\Graphics\Ex_youth_center.ai

Site Photographs

Exhibit 4-3

County of Los Angeles Solar Energy Project

BonTerra CONSULTING

(Rev 05/24/10 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex4-3_youth_center.pdf



Location D



Location E



Mira Loma Detention Center Guard Tower

D:\Projects\CoLACAO\J006\Graphics\Ex_guard_towers.ai

Site Photographs

Exhibit 4-4

County of Los Angeles Solar Energy Project

BonTerra CONSULTING

(Rev 05/20/10 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex4-4_guard_towers.pdf



Location F



Location G

D:\Projects\CoLACAO\J006\Graphics\MND\Ex_Mira_Loma_lighting.ai

Site Photographs

Exhibit 4-5

County of Los Angeles Solar Energy Project

BonTerra CONSULTING

would be seen by travelers on West Avenue I, but would not be visible from 60th Street West or 50th Street West. Employees, visitors, patients, and inmates of the surrounding County and State properties would have views of the changes to the visual character of the site.

An assessment of the visual quality of a site is subjective and generally dependent on the interpretation of individual viewers. Some individuals prefer open and natural settings, while others prefer urban and improved environments. Since the proposed project would not be located along heavily travelled roads; would be surrounded by numerous institutional buildings and facilities; would be no taller than adjacent buildings; and would be located at the rear of existing County facilities (away from public entrances), changes in views would be temporary for travelers and limited for adjacent users. Depending on the height and configuration of the solar facilities, the project would have the potential to obstruct views for the employees and/or inmates of the adjacent County facilities. Aboveground poles and electrical conduits in Off-site Areas would also change views of the site, the Mira Loma Detention Center and the CMYC. However, the views of the project site and adjacent areas are not considered scenic, as discussed above, and changes to the site would not substantially degrade the character of the property.

Implementation of the Solar Energy Project would result in a developed site that would be compatible with the character of the existing surrounding land uses, which are institutional in nature, as previously described. The utility-related function and aesthetic of the proposed project would not conflict with or degrade the character of the surrounding County and State facilities, nor would it conflict with or degrade the character of the vacant land to the north across West Avenue I. Thus, the proposed project would change the visual characteristics of the project site and Off-site Areas from vacant to developed, but these changes would not substantially degrade the existing visual character or quality of the site and its surroundings. Impacts would be less than significant, and no mitigation is required.

d) Less than Significant With Mitigation

A significant impact would result if new lighting or glare from the solar facilities would distract the employees or otherwise impede their ability to perform their duties. As previously noted, the project site is surrounded by existing County and State facilities that provide nighttime lighting, including tall security lights on the adjacent Mira Loma Detention Center, CSP-LAC, and CMYC. In addition, transitory vehicle headlights from West Avenue I and nearby parking lots contribute to lighting on the project site. The proposed project would include perimeter fence lighting for security but no nighttime activities would be associated with the proposed project. Since security lighting at the adjacent County facilities and State prison are present along the site's western, southern, and eastern boundaries and adjacent buildings are setback from these boundaries, the perimeter fence lighting around the proposed solar energy facilities on the site is not expected to adversely impact light sensitive receptors or create any significant lighting impacts.

The proposed solar array would consist of flat-plate PV panels, which have a transparent cover of plastic or glass, an encapsulant material to protect the solar cells, a rear layer, and a frame. The front cover of each PV panel would have an anti-reflection coating to reduce the reflection of sunlight and/or texturing to keep the light within the cells. While textured surfaces reduce reflection, they also reduce light absorption from dust particles on the surface.

A potential for reflective glare may occur with the solar panels, depending on the technology used. Silicon is generally used for PV panels and is a shiny gray material that reflects more than 30 percent of the light that shines on it. Less reflectivity translates to more light capture for energy. The PV panels can be coated with a thin layer of silicon monoxide (SiO) to reduce reflection to about 10 percent, and with a second layer to further decrease reflection to less than 4 percent. PV panels can also be textured by chemical etching to capture light rays and reduce reflectivity (USDOE 2005).

If the PV panels are mounted on a fixed frame, glare may be confined to the area that would be subject to reflected light created by the sun from morning to evening and as the sun path changes through the seasons. If the PV panels utilize a tracking system, a much larger area would be subject to reflected light, as the panels continuously change tilt to be perpendicular to the sun throughout the day and through the seasons.

Even with anti-reflected coatings, not all glare would be eliminated or prevented. Additionally, the type of PV panels and technologies to be used on the project site are not known; therefore, residual glare from the PV panels could adversely affect adjacent land uses that would have a line of sight into the project site. These viewers include guards on the ground and in nearby guard towers at Mira Loma Detention Center (the closest to the project site), guards in the towers at CSP-LAC, patients and hospital staff at the HDHS MACC, and staff and visitors at the Lancaster Animal Shelter.

Potential glare would be a temporary impact for visitors to the County facilities adjacent to the project site. There are no windows at the CMYC along the site boundaries (see Exhibit 4-3). Thus, no glare impacts to the users of this facility would occur. Also, the PV panels would be tilted to face south and thus, travelers on West Avenue I and residents located north of the site would not see the face of the PV panels and would not be exposed to potential glare from the solar array.

In addition, glare from the solar array would not adversely impact visibility for prison guards on the ground or in the towers, or otherwise impair the guard's ability to monitor prisoners and the site perimeter since the potential for glare would be temporary as the sun moves across the sky throughout the day and changes the angle of reflection on the PV panels. The incorporation of anti-reflection coatings and/or texturing to reduce the reflection of sunlight and keep the light within the cells would also reduce glare potential from the PV panels, minimizing potential glare impacts to prison guards. While impacts would be less than significant, MM 4.1-1 requires evaluation of the level of glare from the selected PV panel design to verify that the project would not create substantial glare impacts that could affect security operations at nearby detention facilities, subject to the review and approval of the County. With implementation of MM 4.1-1, potential glare impacts to prison guards or other law enforcement personnel on adjacent properties would be avoided.

Employees at the HDHS MACC and Lancaster Animal Shelter could be exposed to glare impacts if they have direct views of the PV panels, either through windows/doors at these facilities or from outdoor areas. Implementation of MM 4.1-1 would also ensure that potential impacts to these viewers would be less than significant. Ground-level employees and inmates at the CSP-LAC are not going to see the PV panels on the site due to the metal sheet wall along the southern boundary of the site and the 400-foot setback of the nearest CSP-LAC building.

4.1.3 MITIGATION MEASURES

Although no significant impacts were identified, MM 4.1-1 is recommended to verify that the project would not create significant glare impacts.

MM 4.1-1 Upon selection of the project's solar technology, the Project Engineer/Consultant shall provide a glare study that evaluates the level of glare from the proposed solar energy facilities and the site-specific design features, such as alternative mounting angles or restricting movements of tracking systems, which would effectively minimize or eliminate glare impacts to prison guards on the ground and in guard towers. The glare study shall be provided to the County for approval prior to initiation of construction activities.

4.2 AGRICULTURE AND FOREST RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

4.2.1 ENVIRONMENTAL SETTING

The site is located within undeveloped portions of two County-owned parcels that are occupied by several County facilities. There are no agricultural uses or forest lands on the site or surrounding the project site. The project site is not designated as Farmland under the California Farmland Mapping and Monitoring Program (FMMP), but is designated as Other Land (FMMP 2009). It is also not designated as Forests in the Forest and Range Assessment by the California Department of Forestry and Fire Protection (FRAP 2003). The site has remained vacant for over 65 years and has not supported native trees under natural conditions. Thus, it is not considered forest land.

4.2.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a, b, e) No Impact

Implementation of the Solar Energy Project would not directly convert agricultural land to non-agricultural uses because there are no agricultural activities on the project site and the site does not contain FMMP-designated Farmland. The approximately 520-acre block of County and State properties, located within the bounds of West Avenue I, 50th Street West, West Avenue J, and 60th Street West, is zoned by the City of Lancaster as P-Public, and designated as "Public Use" in the City's General Plan. Additionally, the site is not under a Williamson Act contract. The proposed project would not cause changes in the environment that could indirectly result in the conversion of farmland to non-agricultural uses because the project would not be growth-inducing or otherwise hinder the future agricultural use of adjacent lands.

c, d) No Impact

Trees on the project site are limited to a row of non-native deciduous trees located along the edge of West Avenue I and scattered near the eastern boundary. While these trees may be removed as part of project development, the site is not designated as Forest or zoned for timberland production. Thus, no conflict with forest land or timberland would occur with the project. There are no forest lands on or near the site. No conversion of forest land would occur with the project.

4.2.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to agricultural or forest resources; therefore, no mitigation is required.

4.3 AIR QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

4.3.1 ENVIRONMENTAL SETTING

The project site is located in the Mojave Desert Air Basin (MDAB), which includes parts of Kern, Los Angeles, Riverside, and San Bernardino counties. Air quality management within the MDAB is divided among several air districts, which each have primary authority for air quality in their jurisdiction; the project site lies in the southwestern area of the MDAB and within the boundaries of the Antelope Valley Air Quality Management District (AVAQMD). Both the State of California (State) and the federal government have established health-based Ambient Air Quality Standards (AAQS) for seven air pollutants, which are known as "criteria pollutants". These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM10), fine particulate matter with a diameter of 2.5 microns or less (PM2.5), and lead. The State has also established AAQS for additional pollutants. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. Federal and State standards for pollutants that are addressed in this analysis are shown in Table 4-1.

TABLE 4-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	State Standards	Federal Standards	
			Primary	Secondary
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	Same as Primary
PM10	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM[a]	20 µg/m^3	–	Same as Primary
PM2.5	24 Hour	–	35 µg/m^3	Same as Primary
	AAM[a]	12 µg/m^3	15.0 µg/m^3	Same as Primary

TABLE 4-1 (Continued)
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	State Standards	Federal Standards	
			Primary	Secondary
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	None
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	None
NO_2	AAM[a]	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm	None
SO_2	AAM[a]	–	0.030 ppm (80 µg/m^3)	–
	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	1 Hour	0.25 ppm (655 µg/m^3)		

–: No Standard; ppm: parts per million; µg/m^3: micrograms per cubic meter; mg/m^3: milligrams per cubic meter

[a] Annual Arithmetic Mean

Note: Standards for criteria pollutants analyzed for this project are presented above. Other criteria pollutants exist but are not included in this table.

Source: CARB 2010.

Regional air quality is defined by whether the area has attained or not attained State and federal standards, as determined by monitoring. Areas that are in non-attainment are required to prepare plans and implement measures that will bring the region into attainment. When an area has been reclassified from non-attainment to attainment for a federal standard, the status is identified as "maintenance", and there must be a plan and measures established that will keep the region in attainment for the following ten years. Table 4-2, Designations of Criteria Pollutants in the Antelope Valley Portion of the Mojave Desert Air Basin (MDAB), lists the current attainment designations for the MDAB.

TABLE 4-2
DESIGNATIONS OF CRITERIA POLLUTANTS IN THE ANTELOPE VALLEY PORTION OF THE MOJAVE DESERT AIR BASIN

Ambient Air Quality Standard	Attainment Status
1-hour Ozone (Federal)[a]	Nonattainment; classified Severe-17
8-hour Ozone (Federal 84 ppb)	Nonattainment; classified Severe-17
8-hour Ozone (Federal 75 ppb)	Nonattainment (expected)
Ozone (State)	Nonattainment; classified Extreme
PM10 (Federal)	Unclassified
PM2.5 (Federal)	Unclassified/attainment
PM2.5 (State)	Unclassified
PM10 (State)	Nonattainment
Carbon Monoxide (State and Federal)	Attainment
Nitrogen Dioxide (State and Federal)	Attainment/unclassified
Sulfur Dioxide (State and Federal)	Attainment/unclassified
Lead (State and Federal)	Attainment
Particulate Sulfate (State)	Unclassified
Hydrogen Sulfide (State)	Unclassified
Visibility Reducing Particles (State)	Unclassified

[a] Standard has been revoked, this is historical information only.
Source: AVAQMD 2010

The U.S. Environmental Protection Agency (USEPA) designates an area as "Unclassifiable" if, based on available information, it cannot be classified as either meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. For the California Air Resources Board (CARB), an "Unclassified" designation indicates that the air quality data for the area are incomplete and do not support a designation of attainment or non-attainment.

Table 4-2 above shows that the USEPA has designated the AVAQMD portion of the MDAB as being in Severe-17 Non-attainment for ambient ozone concentrations. Pursuant to the approved 2008 Federal Ozone Attainment Plan and given the Severe-17 Non-attainment designation, the AVAQMD has 13 years from the 2004 plan approval to achieve attainment by year 2021. The State has designated the AVAQMD portion of the MDAB as being in Extreme Non-attainment for ozone. The Extreme status allows the use of undefined reductions based on the anticipated development of new control technologies or improvement of existing technologies in the Attainment Plan, and could extend the attainment date by three years to 2024. To be designated as an Attainment area by the State, the AVAQMD portion of the MDAB will need to achieve both the 1-hour and 8-hour ozone standards.

In 2007, the USEPA revoked the annual PM10 standard as research had indicated that there are no considerable health effects associated with long-term exposure to PM10. With this change, the basin is technically in Attainment of the federal PM10 standards although the redesignation process has not yet begun. The USEPA has designated the AVAQMD portion of the MDAB as being an Unclassified area for PM10. The State has designated the AVAQMD portion of the MDAB as being in Non-attainment for the State PM10 standard, which is more restrictive than the federal standard.

Regulatory Requirements

RR 4.3-1 During construction of the Solar Energy Project, the County shall require the project contractors to comply with AVAQMD Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Compliance with this rule will result in a reduction in short-term particulate pollutant emissions. The County shall confirm this requirement is included as notes on the contractor specifications. The Contractor's compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

4.3.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) No Impact

The AVAQMD's current air quality planning documentation, pursuant to State Implementation Plan (SIP) and California Clean Air Act (CCAA) requirements applicable to the project site, includes four separate documents: (1) the *AVAQMD 2004 Ozone Attainment Plan (State and Federal)*; (2) the *AVAQMD List and Implementation Schedule for District Measures to Reduce PM Pursuant to Health & Safety Code §39614(d)*; (3) the *8-Hour Reasonably Available Control Technology – State Implementation Plan Analysis*; and (4) the *AVAQMD Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-attainment Area)*.

A project is considered non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable AVAQMD rules and regulations; complies with all proposed control measures that are not yet adopted from the applicable plan(s); and is consistent with the growth forecasts in

the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan) (AVAQMD 2008).

The proposed project would result in construction criteria pollutant emissions below the CEQA significance thresholds established by the AVAQMD, as shown in response b) below, and therefore would not conflict with or delay implementation of any applicable attainment or maintenance plan. The project would not conflict with the applicable land use plan because there would be negligible long-term emissions of criteria pollutants, as discussed in response b), and the proposed project would not generate new growth on the project site. No impacts would occur, and no mitigation is required.

b) Less Than Significant Impact

The AVAQMD's *CEQA and Federal Conformity Guidelines* (2008) establish significance thresholds to assess the regional impact of project-related air pollutant emissions in the AVAQMD. Table 4-3, AVAQMD Criteria Pollutant Significance Thresholds, summarizes the AVAQMD's mass emissions thresholds, which are presented as both daily and annual values for long-term operational and short-term construction emissions (phases shorter than one year can be compared to the daily value). A project with emission rates below these thresholds are considered to have a less than significant effect on regional air quality throughout the AVAQMD portion of the MDAB.

TABLE 4-3
AVAQMD CRITERIA POLLUTANT SIGNIFICANT EMISSIONS THRESHOLDS

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NOx)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SOx)	25	137
Particulate Matter (PM10)	15	82
Particulate Matter (PM2.5)	15	82
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3
Source: AVAQMD 2008.		

Construction. Site preparation for the proposed project would include vegetation clearing, minor grading for the installation of solar array and potential internal access road(s), and the preparation of foundations and equipment building pads. Depending on the type of solar technology and mounting structure chosen by the County, soil boring for the insertion of pole-mounted support structures may be required. Construction would also require trenching or utility poles for electrical conduits. If it is determined that broken asphalt in the vicinity of the equipment buildings, roadways, trenching, or pole-mounting structures (if included in the project design) must be removed, the asphalt would need to be hauled off-site and disposed.

Project construction would occur in two phases, with the installation of 2 MW of solar array on 20 acres of the site in each phase. Each phase would be ten months long, with the first phase starting in fall 2011 with completion in mid-2012. For the purposes of this report, the second

phase is anticipated to start immediately after completion of the first phase. For each phase, it is assumed that up to 20 acres of asphalt and associated soil could be removed for project implementation. With the assumption of an average depth of 8 inches of material removed, the total demolition volume would be approximately 21,512 cubic yards (cy). If 20-cy trucks are used to remove and dispose of the debris, a total of approximately 1,076 truck loads would be required.

Grading and demolition activities were assumed to occur over the course of two months each, with grading starting one month after the start of demolition and continuing for one month after completion of demolition. It was assumed that a maximum grading disturbance of five acres would occur in one day. For purposes of estimating maximum reasonable worst-case daily emissions, it was assumed that 32 round-trip truck trips could occur in a single day to dispose of demolition debris with an additional 5 trips per day to import gravel for internal roads. The total volume of gravel imported was assumed to be 3,750 cy for each phase.

Assumed equipment includes a grader, a dozer, a backhoe, loaders, and water trucks. The demolition/grading phase of construction activity is considered to be the most intense; the construction phase would not require as many daily truck trips. The above assumptions are conservative because they assume the overlap of construction activities and the requirement for asphalt removal on the entire solar array area.

The proposed project construction emissions were estimated using the URBEMIS 2007 model. Project-specific input was based on the factors described above, general information known about the project description, engineering judgment, and default model settings. The project would be required to comply with AVAQMD Rule 403, Fugitive Dust, as a standard condition (RR 4.3-1), which requires measures such as watering and control of track-out from the site. Therefore, dust-control measures are included in the emissions calculations. The URBEMIS 2007 model data sheets showing equipment assumptions and detailed emissions are included in Appendix A. The results of the calculations are shown in Tables 4-4 and 4-5, and indicate that project-related emissions would be less than the construction mass emissions CEQA thresholds established by the AVAQMD.

Therefore, short-term construction emissions with dust-control measures required in accordance with RR 4.3-1 would ensure that the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts would be less than significant, and no mitigation is required.

TABLE 4-4
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS[a] (LBS/DAY)

	VOC	NOx	CO	SOx	PM10	PM2.5
Maximum daily emissions in 2011	7	68	34	<0.5	64	16
Maximum daily emissions in 2012	10	80	42	<0.5	64	16
Maximum daily emissions in 2013	2	14	8	<0.5	1	1
AVAQMD Daily Thresholds[b]	***137***	***137***	***548***	***137***	***82***	***82***
Exceeds AVAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

VOC: volatile organic compound(s); NOx: nitrogen oxides; SOx: sulfur oxides
Sources:
[a] Appendix A
[b] AVAQMD 2008

TABLE 4-5
ESTIMATED ANNUAL CONSTRUCTION EMISSIONS[a] (TONS)

	VOC	NOx	CO	SOx	PM10	PM2.5
Annual emissions in 2011	0.2	1.7	0.9	<0.05	1.7	0.4
Annual emissions in 2012	0.6	4.4	2.5	<0.05	1.9	0.6
Annual emissions in 2013	<0.05	<0.05	0.1	<0.05	<0.05	<0.05
AVAQMD Annual Thresholds[b]	***25***	***25***	***100***	***25***	***15***	***15***
Exceeds AVAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

VOC: volatile organic compound(s); NOx: nitrogen oxides; SOx: sulfur oxides

Sources:
[a] Appendix A
[b] AVAQMD 2008

Operations. The operation of the proposed project would involve infrequent maintenance and repair activities, and washing of the PV panels using a truck with a water tank and sprayer between 1 and 4 times per year, depending on the accumulation of dust on the surfaces. If adjustable tilt and manual tracking systems are used, manual adjustments would need to be made four times a year to change the tilt of the PV panels. Long-term operation of the Solar Energy Project would generate 36 to 48 vehicle trips (18 to 24 site visits) per year, which translates to no more than 2 vehicle trips every 2 weeks. With the conservative assumption of 48 annual trips at a one-way distance of 50 miles, annual pollutant emissions from maintenance visits were calculated with URBEMIS 2007. As shown in Table 4-6, long-term operational emissions would be below the AVAQMD regional thresholds of significance. Therefore, impacts would be less than significant, and no mitigation is required.

TABLE 4-6
ESTIMATED ANNUAL OPERATIONAL EMISSIONS[a] (TONS)

Year	VOC	NOx	CO	SOx	PM10	PM2.5
2012	0.0007	0.0014	0.0089	0.00	0.002	0.0004
AVAQMD Annual Thresholds[b]	***25***	***25***	***100***	***25***	***15***	***15***
Exceeds AVAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

VOC: volatile organic compound(s); NOx: nitrogen oxides; SOx: sulfur oxides

Sources:
[a] Appendix A
[b] AVAQMD 2008

c) Less Than Significant Impact

The AVAQMD portion of the MDAB is a non-attainment area for PM10 and ozone. Thus, the project would contribute ozone precursor and PM10 pollutants to the area during short-term project construction. However, as described in Response b) above, these emissions would be less than the AVAQMD regional thresholds. With respect to local impacts, cumulative construction particulate impacts are considered when projects may be within a few hundred yards of each other. The project site is surrounded by fully developed properties to the east, west, and south, with no known plans for adjacent redevelopment. While there are several development projects proposed near the 620-acre block property that contains the project site, these projects are inactive or in redesign and it is not anticipated that they would be constructed concurrently with the proposed project (in 2011/2012) (Lancaster 2011 and 2010a). Therefore, the project's contribution of these pollutants would not be cumulatively considerable and would result in a less than significant impact. No mitigation is required.

d) Less Than Significant Impact

Existing sensitive receptors near the project site are the CSP-LAC detention buildings approximately 800 feet south of the project site boundary, the HDHS MACC buildings approximately 350 feet west of the project site boundary, the Mira Loma Detention Center buildings approximately 30 feet west of the project site boundary, and single-family homes approximately 1,300 feet to the north of the project site boundary. As discussed further in Section 4.8, Hazards and Hazardous Materials, there are no schools within 0.25-mile of the project site (for the air quality analysis, schools within 0.25-mile would be subject to additional analysis). The nearest school is Sundown Elementary located at 6151 W. Avenue J-8, approximately 1.3 miles to the south of the project site. Exposure of sensitive receptors is addressed for two situations: CO hotspots; and diesel exhaust emissions. A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically at signalized intersections. As described above, vehicle trip generation from the operation of the proposed project would be negligible. Because existing traffic volumes in the area are low and the project would not generate significant traffic volumes, it would not create or contribute to a CO hotspot, and therefore no analysis is necessary.

CARB identified particulate exhaust emissions from diesel-fueled engines (diesel PM) as Toxic Air Contaminants (TACs) in 1998. Construction of the project would result in the generation of diesel PM emissions from the use of on-site, heavy-duty and off-road diesel equipment that is required for construction activities, and from on-road diesel equipment used to bring materials to and from the project site. Exposure is a combination of the emissions rate and the length of time exposed, with exposures calculated over periods of 9 to 70 years. The proposed project would utilize relatively limited diesel equipment and the construction period using diesel equipment would only occur for a total of 20 months. The exposure to nearby individuals (sensitive receptors) would be much less than threshold levels, and the impact would be less than significant. No mitigation would be required.

e) No Impact

The proposed solar array would not handle trash, generate or treat sewage, use or generate chemicals, or other activities that generate odors. Diesel exhaust fumes would be generated by equipment during site preparation and construction activities. Diesel fumes would result in odors that may be perceptible to occupants of facilities in the immediate vicinity of the project site. Diesel odors would occur for short periods and dissipate within a short distance from the project site. The odors would not be objectionable because of the relatively small magnitude and short duration. Operation of the project would not cause any objectionable odors. Therefore, this project will have no odor impact, and no mitigation is necessary.

4.3.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to air quality; therefore, no mitigation is required.

4.4 BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modification, 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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.4.1 ENVIRONMENTAL SETTING

Project Site

The data provided below are based on field observations from a general survey of the project site conducted by BonTerra Consulting's Botanist and Certified Arborist, Jeff Crain, on April 28, 2010 and focused surveys for the western burrowing owl (*Athene cunicularia*) conducted by BonTerra Consulting's Biologist Brian Karpman on June 12, 13, 14 and 15, 2010. In order to evaluate the biological resources found on the project site, literature searches and database reviews were conducted. Available literature describing biological, geological, soils, and hydrologic resources within the region was examined. At a minimum, the literature examined included the following:

- U.S. Geological Survey (USGS) 7.5-minute Del Sur, Lancaster West, Little Buttes, and Rosamond topographic quadrangle maps;
- California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDB) record search for USGS 7.5-minute Del Sur, Lancaster West, Little Buttes, and Rosamond topographic quadrangle maps (CDFG 2010);

- *Los Angeles County Significant Ecological Area Study* prepared by England and Nelson Environmental Consultants (1976) for the Los Angeles County Department of Regional Planning and Environmental Systems Research Institute;

- Various literature specific to descriptions of the habitat, vegetation types, and special status species occurring in the project region (see References); and

- 2010 aerial photographs.

The site is located within the Lancaster West USGS quadrangle map, with an approximate elevation of 2,340 feet above mean sea level. Soils in the area generally consist of the tray sandy loam, tray loam, pond loam, and saline-alkali associations, as shown in Exhibit 4-6 (USDA NRCS 1969).

Vegetation. Vegetation types and other areas on the project site are shown on Exhibit 4-7, and the vegetation acres are shown below in Table 4-7. Due to its proximity to developed areas and previous development/disturbance, vegetation on the project site is generally disturbed due to asphalt remnants, off-road vehicle use, miscellaneous clearing activities, and unauthorized trash disposal. Vegetation on site consists of disturbed saltbush scrub and ruderal (i.e. weedy and disturbed) vegetation. Other areas on the project site are disturbed areas consisting of exposed dirt, trash piles, or other areas that generally lack vegetation. Plant species that do occur in disturbed areas typically consist of non-native ruderal species.

TABLE 4-7
VEGETATION TYPES

Vegetation Type/Other Area	Acres
Disturbed Saltbush Scrub	27.7
Ruderal	26.3
Disturbed	9.0
Total	***63.0***

The disturbed saltbush scrub vegetation on the project site is dominated by fourwing saltbush (*Atriplex canescens*), Great Basin sagebrush (*Artemisia tridentata*), burro-weed (*Ambrosia dumosa*), and annual bursage (*Ambrosia acanthicarpa*). The ruderal vegetation consists of non-native weedy species such as foxtail barley (*Hordeum murinum*), ripgut grass (*Bromus diandrus*), red-stemmed filaree (*Erodium cicutarium*, *a parviflora*), Russian thistle (*Salsola tragus*), and hare's ear cabbage (*Sisymbrium orientale*). Common native species found in both the disturbed saltbush scrub and ruderal vegetation communities include rancher's fiddleneck (*Amsinckia menziesii*) and popcornflower (*Plagiobothrys* sp.). A few non-native ornamental (planted) trees are present along the northern edge of the project site along West Avenue I and at the eastern perimeter of the site. These are non-native deciduous trees that could not be identified at the time of the survey. Disturbed areas consist of exposed dirt devoid of vegetation.

Wildlife. A relatively low level of wildlife activity was observed during the general survey due to the surrounding development and high level of human disturbance on the project site. Although limited, there is some connectivity with natural open spaces to the north across West Avenue I (approximately 100 feet from the project site) and, as a result, a variety of native wildlife species may occur on the project site. No reptile species were observed during the survey due to the cool and cloudy weather conditions encountered on that date. However, the side-blotched lizard

(*Uta stansburiana*) is expected to occur. Other reptiles that may occur include the western whiptail (*Cnemidophorus tigris*) and gopher snake (*Pituophis melanoleucus*).

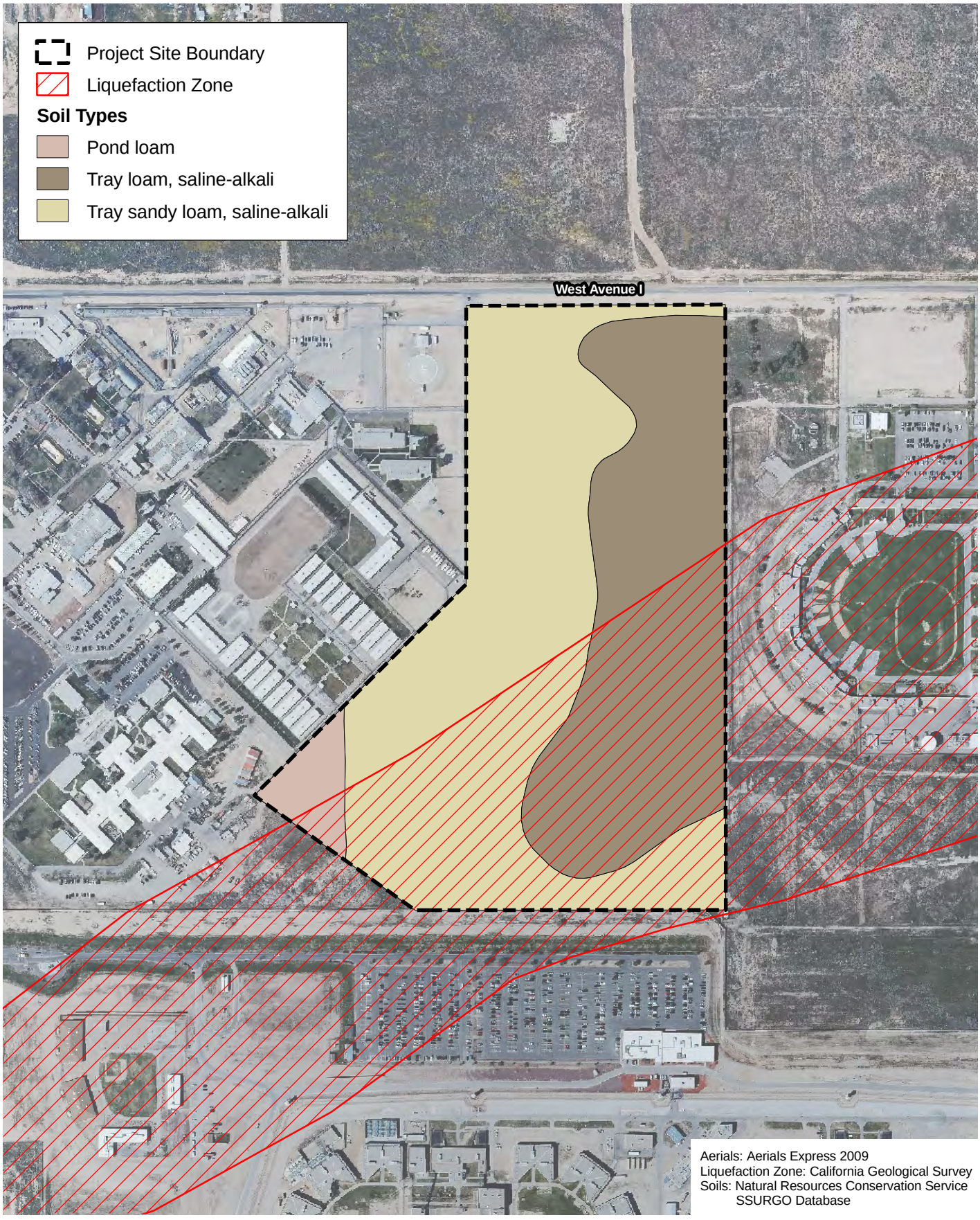
Only four bird species were observed during the survey: killdeer (*Charadrius vociferus*), common raven (*Corvus corax*), European starling (*Sturnus vulgaris*), and western meadowlark (*Sturnella neglecta*). Other birds expected to occur include California quail (*Callipepla californica*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), Say's phoebe (*Sayornis saya*), northern mockingbird (*Mimus polyglottos*), Brewer's blackbird (*Euphagus cyanocephalus*), and house finch (*Carpodacus mexicanus*).

Only one mammal, the desert cottontail (*Sylvilagus audubonii*), was observed during the general survey, but small burrows were present indicating the presence of rodents, such as the white-tailed antelope ground squirrel (*Ammospermophilus leucurus*). The coyote (*Canis latrans*) is a large carnivore that is expected to occur on the project site. Bats are also expected to occur on the site, especially during spring and fall as many bats migrate between summer and winter home ranges. The California myotis (*Myotis californicus*), western pipistrelle (*Pipistrellus hesperus*), and big brown bat (*Eptesicus fuscus*) are expected to occur for foraging, but not roosting, on the project site.

Off-site Areas

The conduit trenching or aboveground conduits for electrical connection from the on-site equipment buildings to the Mira Loma Detention Center would occur within an Off-site Area that is partly paved and partly covered with a gravel surface. No vegetation or habitat is present in this area and thus, no impacts to biological resources would occur. However, the conduit trenching or utility poles for connection to the CMYC main electrical switchgear facilities would occur in an Off-site Area consisting of vacant land supporting some vegetation. A jurisdictional assessment survey was performed on the Off-site Area that extends from the project site in a narrow band toward the east, along the southern fence of the CMYC, where the electrical connection would be located and trenching may occur. The intent of the survey was to assess biological and potential jurisdictional resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act and/or the California Department of Fish and Game (CDFG) pursuant to Section 1600 of the California Fish and Game Code. The surveys were conducted by BonTerra Consulting Ecologist Richard Lewis on March 9, 2011 and Biologist Andrea Edwards on March 15, 2011.

The Off-site Area consists mainly of ruderal and disturbed areas (see Exhibit 4-8, Off-site Area Vegetation Types) as a result of past mechanical and other human activities. The ruderal areas currently support non-native upland vegetation including cheat grass (*Bromus tectorum*), foxtail chess (*Bromus madritensis* ssp. *rubens*), and foxtail barley (*Hordeum murinum*). Disturbed areas include a dirt path generally devoid of vegetation and used by maintenance workers. USACE-classified hydrophytic vegetation mapped as Southern Willow Scrub is present in the eastern portion of this Off-site Area, which is dominated by deciduous willow trees (*Salix* sp.) that could not be identified because they did not have leaves at the time of the surveys, along with mule fat (*Baccharis salicifolia*), and patches of cattail (*Typha* sp.) and Mexican rush (*Juncus mexicanus*) that appeared dead at the time of the surveys since the drainage they occupy is ephemeral and was dry at the time of the surveys. A few small areas containing ornamental species are present along the CMYC property fence-line where non-native cypress trees (*Cupressus* sp.) have been planted.



Aerials: Aerials Express 2009
Liquefaction Zone: California Geological Survey
Soils: Natural Resources Conservation Service
SSURGO Database

D:\Projects\CoLACAO\J006\mxd\Ex_hazards.mxd

Site Hazards and Soil Types

Exhibit 4-6

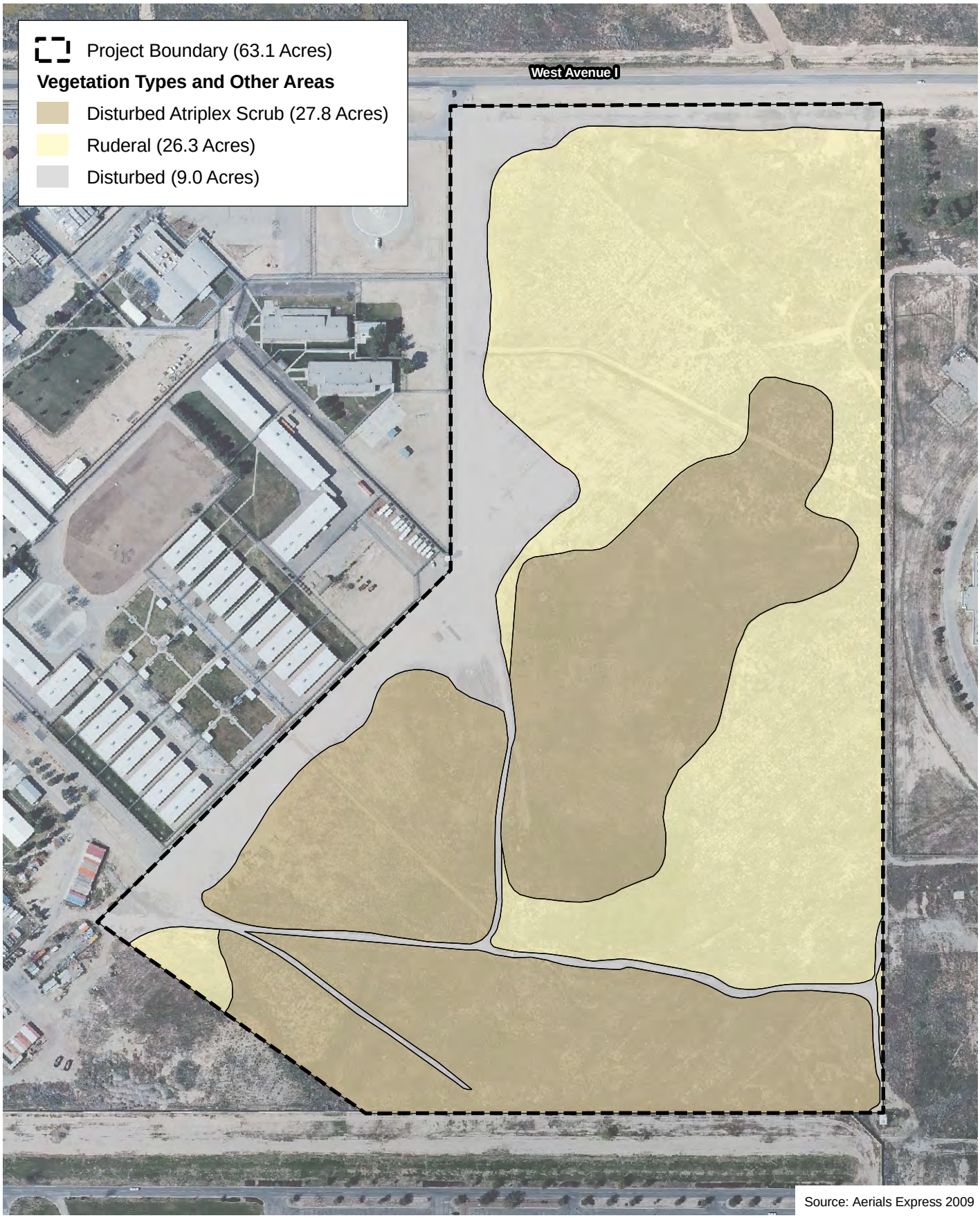
County of Los Angeles Solar Energy Project

N W E S

500 250 0 500 Feet

BonTerra CONSULTING

(Rev 05/24/10 CJS) PAS/Projects/CoLACAO/J006/Graphics/MND/Ex4-6_hazards.pdf



D:\Projects\CoLACAO\J006\mxd\Ex_veg.mxd

Vegetation Types

Exhibit 4-7

County of Los Angeles Solar Energy Project

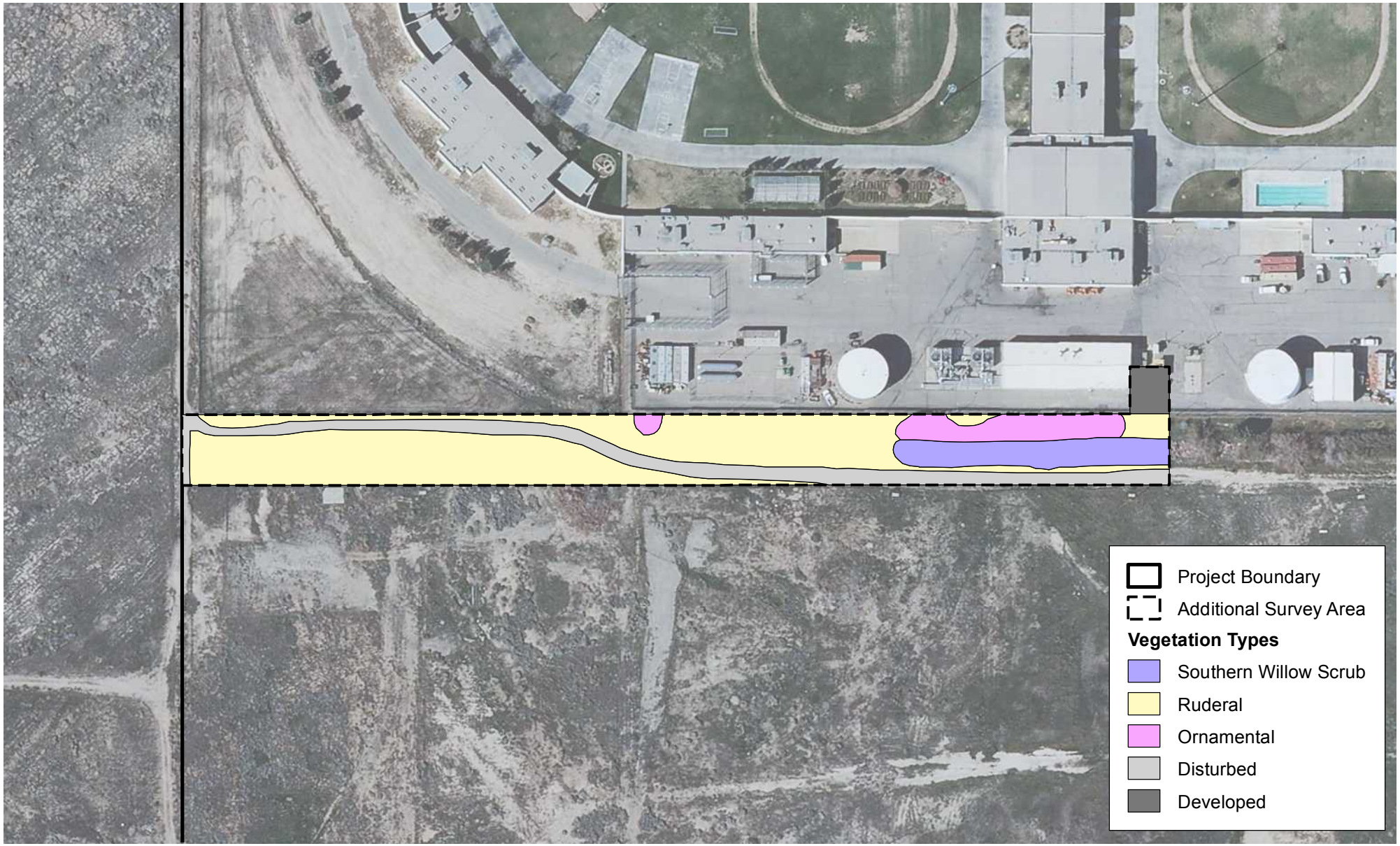
N
W E
S

300 150 0 300

Feet

BonTerra CONSULTING

(Rev 05/19/10 CJS) PAS/Projects/CoLACAO/J006/Graphics/MND/Ex4-7_veg.pdf



D:\Projects\CoLACAO\J006\mxd\additional_veg.mxd

Off-site Area Vegetation Types

Exhibit 4-8

County of Los Angeles Solar Energy Project

N W E S

150 75 0 150 Feet

BonTerra CONSULTING

(Rev 04/07/11 CJS) Projects\CoLACAO\J006\Graphics\MND\Ex4-8_additional_veg.pdf

4.4.2 PROJECT IMPACTS

a) Less Than Significant With Mitigation

On-Site Impacts

While only 40 acres would be impacted by the proposed project, the configuration and specific location of the solar energy facilities and other site improvements are not known at this time. Thus, the analysis below assumes that the entire 63-acre site would be disturbed, as a worst-case scenario. This does not affect the conclusions and the same mitigation would apply.

Special Status Plant Species. Although no special status plant species were observed, the literature search and database review revealed a list of ten special status plant species known to occur in the project vicinity. Upon completion of site reconnaissance and vegetation mapping, it was determined that none of these ten special status plant species are expected to occur on the project site due to a lack of suitable habitat. Various factors are required to be present in order to demonstrate suitable habitat for a particular species, including distribution of vegetation types, slope, aspect, topography, rainfall, soil types, and other substrate features. The determination of suitable habitat is based on the presence or absence of appropriate biological features for each species and is discussed below.

These plants and their potential to occur on the project site are summarized below in Table 4-8. Potential impacts to special status plant species would be less than significant, and no mitigation would be required.

TABLE 4-8
SPECIAL STATUS PLANT SPECIES KNOWN TO OCCUR IN THE PROJECT VICINITY

Species	Status	Likelihood to Occur on the Project Site
Lancaster milk-vetch (*Astragalus preussii* var. *laxiflorus*)	CNPS 1B.1	Not expected to occur; no suitable habitat present.
Alkali mariposa lily (*Calochortus striatus*)	CNPS 1B.2	Not expected to occur; no suitable habitat present.
White pygmy-poppy (*Canbya candida*)	CNPS 4.2	Not expected to occur; no suitable habitat present.
Brown fox sedge (*Carex vulpinoidea*)	CNPS 2.2	Not expected to occur; no suitable habitat present.
Parry's spineflower (*Chorizanthe parryi* var. *parryi*)	CNPS 1B.1	Not expected to occur; no suitable habitat present.
Desert cymopterus (*Cymopterus deserticola*)	CNPS 1B.2	Not expected to occur; no suitable habitat present.
Barstow woolly sunflower (*Eriophyllum mohavense*)	CNPS 1B.2	Not expected to occur; no suitable habitat present.
Red Rock poppy (*Eschscholzia minutiflora* ssp. *twisselmannii*)	CNPS 1B.2	Not expected to occur; no suitable habitat present.
Pale-yellow layia (*Layia heterotricha*)	CNPS 1B.1	Not expected to occur; no suitable habitat present.
Sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*)	CNPS 2.2	Not expected to occur; no suitable habitat present.

LEGEND:

Federal (USFWS)
FE Endangered
FT Threatened

State (CDFG)
CE Endangered
CT Threatened
CR Rare

California Native Plant Society (CNPS) List Categories
1A Plants Presumed Extinct in California
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2 Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants for Which More Information is Needed - A Review List
4 Plants of Limited Distribution - A Watch List

California Native Plant Society (CNPS) Threat Rank Extensions
.1 Seriously threatened in California (high degree/immediacy of threat)
.2 Fairly threatened in California (moderate degree/immediacy of threat)
.3 Not very threatened in California (low degree/immediacy of threat or no current threats known)

Special Status Wildlife Species. The literature search and database review revealed a list of 18 special status wildlife species known to occur in the project vicinity. Twelve of these 18 special status wildlife species are not expected to occur on the project site due to the lack of suitable habitat and/or the project site is outside the known range for the species (e.g., coast horned lizard range ends at the base of the San Gabriel Mountains near Palmdale in the vicinity of the project site). These wildlife species and their potential to occur on the project site are summarized below in Table 4-9. Potential impacts these special status wildlife species would be less than significant, and no mitigation would be required. The remaining six species are discussed below.

TABLE 4-9
SPECIAL STATUS WILDLIFE SPECIES KNOWN TO OCCUR IN THE PROJECT VICINITY

Species	Status	Likelihood to Occur on the Project Site
Reptiles		
Desert tortoise (*Gopherus agassizii*)	FT, ST	Not expected to occur; no suitable habitat.
Coast horned lizard (*Phrynosoma blainvillii*)	SSC	Not expected to occur; no suitable habitat and outside known range.
Silvery legless lizard (*Anniella pulchra pulchra*)	SSC	Not expected to occur; no suitable habitat and outside known range.
Birds		
Swainson's hawk (*Buteo swainsoni*)	ST	Not expected to occur; no suitable habitat.
Northern harrier (*Circus cyaneus*)	SSC	May occur for foraging only; limited suitable habitat for foraging and no suitable habitat for nesting.
Western snowy plover (*Charadrius alexandrinus nivosus*)	FT, SSC	Not expected to occur; no suitable habitat.
Mountain plover (*Charadrius montanus*)	SSC	Not expected to occur; no suitable habitat.
Burrowing owl (*Athene cunicularia*)	SSC	May occur; limited suitable habitat for foraging and potentially suitable habitat for nesting.
Long-eared owl (*Asio otus*)	SSC	Not expected to occur; no suitable habitat.
Short-eared owl (*Asio flammeus*)	SSC	Not expected to occur; no suitable habitat.
Loggerhead shrike (*Lanius* ludovicianus)	SSC	May occur for foraging and nesting; limited suitable foraging and potentially suitable nesting habitat.
Le Conte's thrasher (*Toxostoma lecontei*)	SSC	Not expected to occur; no suitable habitat.
Tricolored blackbird (*Agelaius tricolor*)	SSC	May occur for foraging only; limited suitable foraging but no suitable nesting habitat.
Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)	SSC	Not expected to occur; no suitable habitat.
Mammals		
Pallid bat (*Antrozous pallidus*)	SSC	May occur for foraging only; potentially suitable foraging but no suitable roosting habitat
Townsend's big-eared bat (*Corynorhinus townsendii*)	SSC	May occur for foraging only; potentially suitable foraging but no suitable roosting habitat
Mohave ground squirrel (*Xerospermophilus mohavensis*)	ST	Not expected to occur; no suitable habitat.
American badger (*Taxidea taxus*)	SSC	Not expected to occur; no suitable habitat.

LEGEND:

Federal (USFWS)		**State (CDFG)**	
FE	Endangered	SE	Endangered
FT	Threatened	ST	Threatened
FP	Fully Protected	SSC	Species of Special Concern

The northern harrier (*Circus cyaneus*), tricolored blackbird (*Agelaius tricolor*), pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat (*Corynorhinus townsendii*) may occur on the project site for foraging, but are not expected to occur for nesting or roosting activities. Project implementation would result in the loss of foraging habitat for these species. These

impacts would be considered adverse but less than significant due to the availability of similar foraging areas near the site, and no mitigation is required.

The project site provides suitable foraging and potentially suitable nesting habitat for burrowing owl (*Athene cunicularia*) and loggerhead shrike (*Lanius ludovicianus*), and both species may occur on the project site. Both species nest only in spring and summer, but the burrowing owl may occupy a potential nesting burrow all year round. The loss of approximately 63.0 acres of disturbed and discontiguous foraging and breeding habitat for the burrowing owl and loggerhead shrike would be considered adverse but not significant relative to the amount of suitable foraging and breeding habitat available elsewhere in the project vicinity and region for these two species. The foraging resources for these species are not limited in the project area, and foraging can occur elsewhere without significantly impacting these species. Therefore, no mitigation would be required for the loss of foraging habitat.

As noted above, focused surveys for western burrowing owl were also conducted, following the currently accepted guidelines for this species (i.e., Burrowing Owl Consortium or Western Riverside County Protocol). Specifically, a total of four, three-hour-long surveys were conducted, with two at sunrise (approximately between 4:45 AM and 7:45 AM) and two at sunset (approximately between 6:00 PM and 9:00 PM). During the first survey, it was determined that several suitable burrows were present on the project site. Therefore, during the first and the following three surveys, a census of the presence or absence of burrowing owls was performed. No owls or owl sign were observed during the focused surveys. Therefore, there are no active burrowing owl burrows (nests) on the project site, and there would be no impact related to the loss of an active nest under the Migratory Bird Treaty Act (MBTA).

However, the loss of an active nest for loggerhead shrike or for any other native bird species would be a violation of the MBTA and would result in a significant impact. Project implementation has the potential to result in the loss of an active loggerhead shrike nest or other native bird nests. As required by MM 4.4-1, site disturbance outside the nesting season or nesting bird surveys during the nesting season and protection of active nests would serve to reduce these impacts to a less than significant level for the loggerhead shrike and other native bird species potentially nesting on the project site.

Off-Site Impacts

The trenching, aboveground conduits, or utility poles required for the electrical connection from the equipment buildings to the Mira Loma Detention Center and the CMYC main electrical switchgear facilities (Exhibit 3-5) will result in off-site impacts. Trenching or aboveground conduits for electrical connection from the project site to the Mira Loma Detention Center will not encounter any native soils or disturb vegetation between the project site boundary and the main switchgear since the Off-site Area is paved or covered with a gravel surface. There would be no off-site impacts to biological resources associated with trenching or excavation for utility poles.

The alignment for electrical connection to the CMYC will go through an area supporting ruderal and ornamental species, as well as disturbed areas just south of the CMYC fencing. In addition, a shallow drainage runs through this area and the eastern section supports Southern Willow Scrub vegetation. This vegetation is considered sensitive because it supports a diversity of specialized wildlife species that has been greatly reduced in the region. Disturbance or removal of this vegetation would be considered a significant adverse impact.

In order to avoid impacts to the Southern Willow Scrub vegetation, MM 4.4-2 establishes an "Avoidance Area" that prohibits vegetation removal, ground disturbance (e.g., grading, excavation, vehicular/equipment encroachment), and disturbance of any riparian vegetation (i.e., removal or trimming) on the bed and banks of the shallow drainage.

This Avoidance Area coincides with the limits of "Waters of the U.S." and "Waters of the State" jurisdictional resources within the boundaries of the Off-site Area that may be affected by the installation of an electrical connection from the project site to the CMYC facility. The limits of "Waters of the U.S.", which are under the jurisdiction of the U.S. Army Corps of Engineers pursuant to Section 404(1)(b) of the Clean Water Act (CWA) and the Regional Water Quality Control Board pursuant to CWA Section 401, were identified by the limits of ordinary high water mark(s) (OHWM[s]) as defined by the USACE's 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* and the 1987 *Corps of Engineers Wetlands Delineation Manual*. The limits of "Waters of the State", which are under the jurisdiction of the California Department of Fish and Game (CDFG), were identified based on the presence of bed, bank, stream, and riparian vegetation.

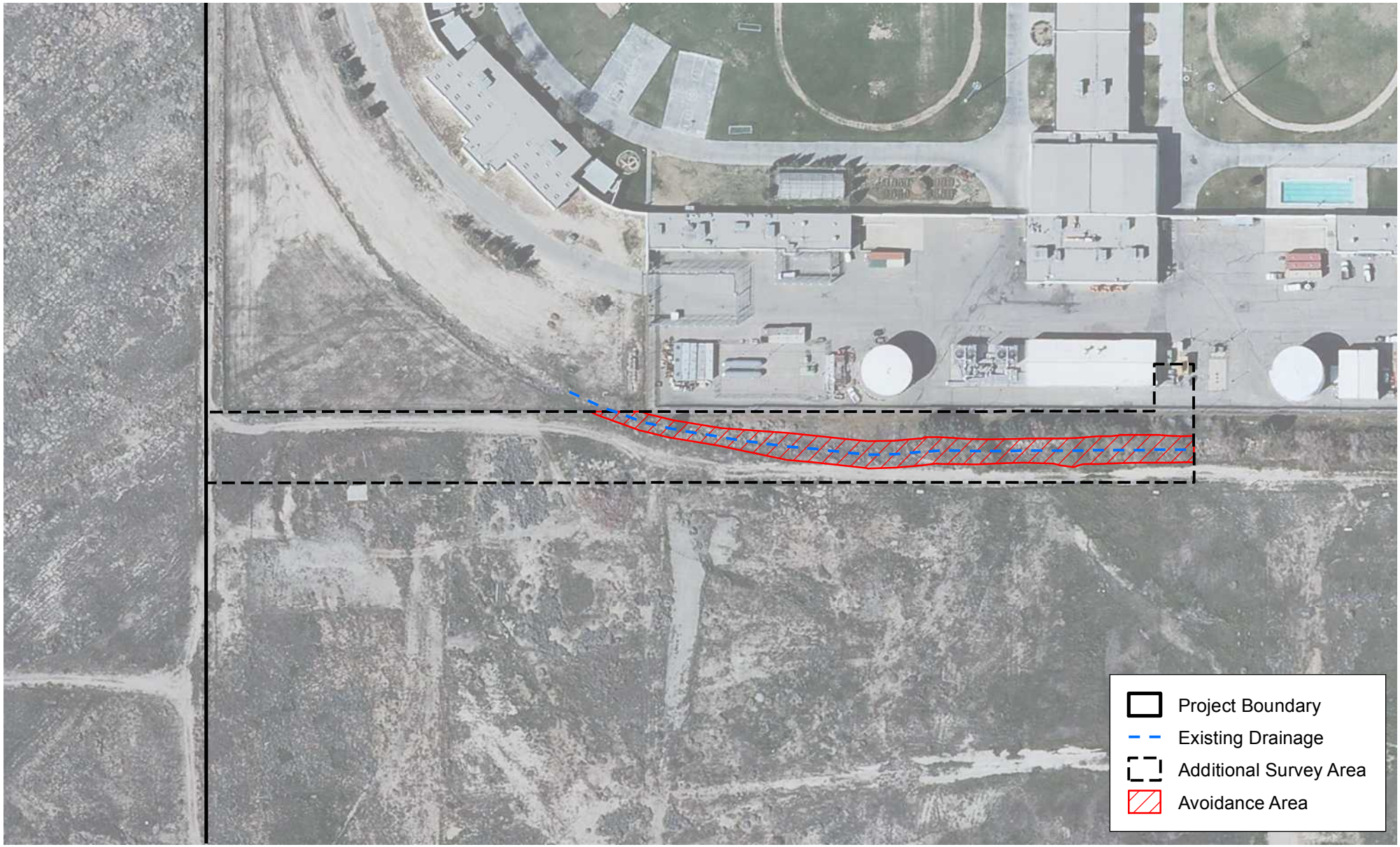
If electrical lines or infrastructure need to cross this Avoidance Area, above-ground pipe or overhead utility lines (or other means of avoiding vegetation and ground disturbance) shall be used to connect the electrical line to the CMYC property. The Avoidance Area shall be staked prior to commencement of construction activities in the vicinity of the CMYC property by a qualified Biologist, and the staking shall remain in place until the completion of construction activities. A graphic depicting the Off-site Avoidance Area (Exhibit 4-9) shall be included in the contractor specifications to define the limits of the Avoidance Area and identify the prohibited activities within this area. In addition, MM 4.4-3 requires that the maintenance contract for the project include a narrative description and a graphic depicting the Off-site Avoidance Area, where vegetation removal, ground disturbance, discharge, fill or debris placement, vehicular/equipment encroachment and disturbance of any riparian vegetation (i.e., removal or trimming) are prohibited. With implementation of MM 4.4-2 and MM 4.4-3, no impacts to the Southern Willow Scrub vegetation through ground or vegetation disturbance would result from the implementation of this project within the mapped Avoidance Area and no permanent and/or temporary dredge or fill impacts to USACE, RWQCB, or CDFG jurisdictional resources would occur.Therefore, additional mitigation would not be warranted or necessary.

The vegetated area adjacent to the southwestern corner of the site (near the warehouse storage area associated with the HDHS MACC) may be used as a temporary equipment staging area. This area was also surveyed during the general survey of the project site conducted by BonTerra Consulting on April 28, 2010, and conditions are similar to the proposed project site although more disturbed due to dirt piles and debris located in the area. Activities in all Off-site Areas are subject to the same requirements as on-site activities, including compliance with MM 4.4-1 (nesting bird avoidance). Ground disturbance along the southern fence line of the CMYC would require compliance with MM 4.4-1 and MM 4.4-2 to ensure that impacts to biological resources would be less than significant.

b, c) Less than Significant Impact After Mitigation

As shown on Exhibit 4-7, there are no riparian or other sensitive natural communities present on the project site. Also, there are no jurisdictional wetlands or waters of the U.S. or State on the project site. There are drainage swales on the project site; however, these were determined to be non-jurisdictional features.

A shallow drainage runs along the Off-site Area extending along the southern boundary of the CMYC, which supports Southern Willow Scrub vegetation, a wetland habitat. Ground disturbance associated with conduit trenching and/or utility pole footings in this area could impact riparian vegetation and wetlands. As discussed above, implementation of MM 4.4-2 and MM 4.4-3 would avoid impacts on riparian habitat, wetlands, or other sensitive natural community. Impacts would be less than significant after mitigation.



D:\Projects\CoLACAO\J006\mxd\avoidance_area.mxd

Off-site Avoidance Area

Exhibit 4-9

CoLACAO J006

N
W E
S

150 75 0 150

Feet

BonTerra CONSULTING

(Rev 04/07/11 CJS) Projects\CoLACAO\J006\Graphics\MND\Ex4-9_avoidance_area.pdf

d) Less Than Significant Impact

Wildlife movement typically consists of (1) dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (e.g., foraging for food or water, defending territories, or searching for mates, breeding areas, or cover). This movement is necessary in order to maintain healthy wildlife populations, especially where open space is limited in size or otherwise isolated from other open space areas. A number of terms such as "wildlife corridor", "travel route", "habitat linkage", and "wildlife crossing" have been used in various wildlife movement studies to refer to areas where wildlife move from one area to another.

The project site has connectivity with natural open spaces north of West Avenue I. Open spaces on the project site, however, are limited in extent and do not lead to any other areas of natural open space. Wildlife movement may cross West Avenue I from the north, head south through the site and then eastward. However, the presence of development on three sides of the site would constrain wildlife movement. Project implementation may impact wildlife movement on the site, but is not expected to affect regional wildlife or interfere substantially with the movement of any native resident or migratory fish and wildlife species in more open areas adjacent to the site, nor impede the use of native wildlife nursery sites. Impacts would be less than significant, and no mitigation is required.

e) No Impact

The Solar Energy Project would not conflict with any local policies or ordinances protecting biological resources, such as the City of Lancaster's ordinance preventing removal of Joshua trees (*Yucca brevifolia*), since there are no Joshua trees on the project site. No impacts on local policies or ordinances protecting biological resources would occur, and no mitigation is required.

f) No Impact

The City of Lancaster's General Plan 2030 seeks to identify, preserve, and maintain important biological resources within the City, including Joshua tree/California juniper woodlands, areas that support Endangered or sensitive biological species, and other natural areas of regional significance. Project implementation would not conflict with this policy as there are no Joshua trees, California juniper woodland habitat, areas that support Endangered or sensitive biological species, or other natural areas of regional significance on the project site, except for the Southern Willow Scrub vegetation near the CMYC, which would be avoided under MM 4.4-2. The City of Lancaster participated in the development of the West Mojave Plan but did not adopt it. Subsequently, the City and other cities in the area developed a Habitat Conservation Plan (HCP) for 13 species; however, there is currently no schedule for adoption of this HCP (City of Lancaster 2011c). No conflict with an adopted HCP or Natural Community Conservation Plan would occur, and no mitigation is required.

4.4.3 MITIGATION MEASURES

MM 4.4-1 To ensure compliance with the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the *California Fish and Game Code,* construction activities shall be conducted outside the bird nesting season (March 15–September 15) to avoid any potential disturbance of avian breeding activities. If site clearing, construction or other ground disturbance would be conducted within the general nesting season (February 15–August 31), then a pre-construction nesting bird survey shall be conducted by a qualified Biologist within three days prior to disturbance. If an active nest is located within or adjacent to the construction area and the Biologist determines that work activities may impact nesting, the

Biologist will demarcate an appropriate buffer zone around the nest, generally prohibiting construction activities within 300 feet (500 feet for raptors) of the active nest. The size of the buffer may vary depending on site features, the sensitivity of the species, and the type of construction activity, but will be designed to prevent disruption of nesting activity. If construction activities must occur within the buffer zone of an active bird nest, the Biologist must monitor the construction activities to avoid undue disturbance to the nesting activities. The buffer zone restrictions will be eliminated once the Biologist determines that nesting activity has ceased. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

MM 4.4-2 The "Avoidance Area" along the southern boundary of the Challenger Memorial Youth Center (as shown in Exhibit 4-9) shall not be subject to any vegetation removal, ground disturbance (e.g., grading, excavation, vehicular/equipment encroachment), and any disturbance of any riparian vegetation (i.e., removal or trimming) on the bed and banks of the shallow drainage. If electrical lines or infrastructure need to cross this Avoidance Area, above-ground pipe or overhead utility lines (or other means of avoiding vegetation and ground disturbance) shall be used to connect the electrical line to the Challenger property. The Avoidance Area shall be staked prior to commencement of construction activities in the vicinity of the Challenger property by a qualified Biologist, and the staking shall remain in place until the completion of construction activities. The graphic depicting the Avoidance Area shall be included within the contractor specifications to define the limits of the Avoidance Area and identify the prohibited activities within this area. The Contractor's compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

MM 4.4-3 The maintenance contract to be signed between the County and the maintenance contractor shall include a narrative description and a graphic depicting the Off-site Avoidance Area, where vegetation removal, ground disturbance, discharge, fill or debris placement, vehicular/equipment encroachment, or disturbance of any riparian vegetation (i.e., removal or trimming) are prohibited. Prior to the initiation of any maintenance activities occurring more than one year after the completion of the project, the limits of USACE and CDFG jurisdiction shall be verified and staked in the field by a qualified biologist or regulatory specialist. The contract shall require that maintenance personnel be educated about this requirement prior to the performance of maintenance activities. Compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works and subject to any revisions to current regulations. The County shall also ensure that County maintenance staff are kept adequately informed of this requirement to stay away from this Avoidance Area.

Implementation of these mitigation measures would reduce impacts to less than significant levels.

4.5 CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	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 §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human resources, including those interred outside of formal cemeteries?	☐	☐	☒	☐

4.5.1 ENVIRONMENTAL SETTING

BonTerra Consulting Archaeologist Patrick Maxon, a Registered Professional Archaeologist (RPA), conducted a California Historical Resources Information System (CHRIS) records search and literature review for the project at the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton on May 3, 2010. The SCCIC houses records for archaeological and historical resources in Orange, Los Angeles, and Ventura Counties.

Native American consultation was initiated with the Native American Heritage Commission (NAHC) by Mr. Maxon with a request for a Sacred Lands File Search and contact list on April 29, 2010. A response was received from the NAHC on May 3, 2010. Informational letters were mailed to tribes and individuals on May 4, 2010. The results of the CHRIS records search and Native American consultation, (those that do not indicate the location of identified sites and can therefore be released to the public), are provided in Appendix B-1.

A paleontological resources records search was completed by the Los Angeles County Natural History Museum (LACNHM) for the City of Lancaster 2030 General Plan update in 2008, and was reviewed for information on known paleontological resources in the project site and surrounding area. In addition, Dr. Sam McLeod of LACNHM conducted a review of the museum's vertebrate paleontology records for the project site and vicinity on June 6, 2010. The results of the LACNHM records search for the project site is provided in Appendix B-2. A cultural resources survey of the project site was conducted on May 6, 2010, by Mr. Maxon and Mr. Albert Knight of BonTerra Consulting.

A *Phase I Evaluation of Built-Environment Resources on the County of Los Angeles Solar Energy Project Site, Lancaster, California* (Historic Resources Assessment) was prepared by Daly & Associates, dated May 11, 2011. The Historic Resources Assessment involved a pedestrian survey of the project site and research into the historic development of the site and surrounding area, including individual property information available from archival sources. The assessment is provided in Appendix B-3.

Ethnographic Background

The western Mohave Desert and Antelope Valley were occupied by at least four groups of Native Americans: the Vanyume/Serrano, the Kawaiisu, the Tataviam, and the Kitanemuk (Antelope Valley Indian Museum 2010). A fifth group, the Haminot, that lived in the Lancaster and Palmdale area (Lloyd 2007) likely was a name given to the Kitanemuk by their

Native American neighbors (Blackburn and Bean 1978). The languages of the Vanyume, Tataviam, and Kitanemuk appear to have been dialects of Serrano or Serran (Bean and Smith 1978).

Little is known about this period in the Antelope Valley region. Local groups continued to live in large, semi-permanent villages during the winter, and during the spring, summer, and fall would separate into smaller groups to hunt and gather the locally available resources including, among others, piñon nuts, mesquite, and yucca. Most of the ethnographic groups of the area shared similar cultural traits and practices and for the most part maintained friendly relations with each other (Applied Earthworks 2007).

Historic Background

In 1772, Lieutenant Pedro Fages, leading a small force of Spanish soldiers, became the first Europeans to enter the Antelope Valley. Other explorers passed through the valley over the next century, but little change to the lifestyles of the local populations of the valley was evident until 1876, when the Southern Pacific Railroad completed its line between the Los Angeles Basin and the San Joaquin Valley (Norwood 1995; Tang et al. 2004).

Local History. The history of the City of Lancaster began when Moses Landley Wicks, a real estate developer, bought 640 acres of land from the railroad and laid out the town of Lancaster in 1884 (Tang et al. 2004). The new town boomed during the 1880s and early 1890s; however, several years of drought beginning in 1895 forced most residents to leave the area (Tang et al. 2004). The City began to recover after the turn of the century, the turning point being the completion of the Los Angeles aqueduct through the region in 1914, which permitted agricultural expansion (Norwood 1995). After World War II, the aerospace and defense industry became the largest business sector in the area with the construction of several aeronautical plants and the associated influx of workers to staff them (Tang et al. 2004). The City of Lancaster was incorporated in 1977 and has grown steadily since that time.

War Eagle Field. In 1941, the U.S. Air Force opened War Eagle Field and the Polaris Flight Academy on a large parcel that included at least a part of the current project site. As the United States had not yet entered the war, the Academy trained British and Canadian cadets. In 1942, following the United States' entry into the war, the Academy also began training U.S. Air Force cadets, and became one of the only civilian schools to conduct basic training for military cadets (Freeman 2009). The base soon doubled in size. The airfield was centered on two large hangars, and included a control tower and administration building among others. The two hangars and other war-era buildings are still in existence, now located on the grounds of the Mira Loma Detention Center (California State Military Museum 2009).

The flight academy closed in 1945 at the end of the war, but the airfield remained open a few more years. It was converted to a prison in the 1950s. It became the Mira Loma Custody Facility for inmates with tuberculosis in 1954; closed in 1979, but was reopened in 1983. It closed once again in 1993 because of budget cuts by the County, but reopened once again in 1997. As of 2002, it became the property of the Mira Loma Detention Center (Freeman 2009).

Cultural Resources Literature Review

The SCCIC literature review undertaken on May 3, 2010, revealed that ten cultural resources sites have been recorded within one mile of the project site. None have been recorded within the project site itself. Table 4-10 depicts the resources.

As described in the table below, five of these sites are historic refuse deposits consisting chiefly of tin cans, bottles, glass and metal fragments, ceramics, lumber, and animal bone, ranging in age from the 1890s to the 1950s. Two building foundations, one occupation site, and the Mira Loma hangars are also recorded within one mile. One prehistoric site was also recorded. The exact locations of these sites are undisclosed in order to minimize opportunities for vandalism or upset of existing recorded resources.

The literature review also identified 12 cultural resources studies undertaken within one mile of the current project site. One of these (L-131) included the southern two-thirds of the current project site. The other 11 were outside the project site. Peak and Associates (1988) conducted a survey of (1) all of USGS Section 13 to the east of the current project site; (2) much of USGS Section 14 that includes the project site; and (3) approximately one-fifth of USGS Section 23 to the south. This survey resulted in the discovery and recordation of one site, CA-LAN-1412, located within Section 14, some 1,700 feet due south of the project site. See Appendix B-1 for a bibliography of these studies.

TABLE 4-10
CULTURAL RESOURCES SITES WITHIN ONE MILE OF THE PROJECT SITE

Site Number	Recorder/Year	Comment
CA-LAN-1412	Gerry, Neuenschwander/1988	Prehistoric lithic scatter; shell bead
19-002886	Norwood/2001	Historic refuse deposit
19-002887	Norwood/2001	Historic occupation and agricultural site
19-002888	Norwood/2001	Historic refuse deposit
19-003658	Sanka/2006	Historic dump with 5 loci
19-120068	Norwood/2001	Historic refuse deposit
19-120070	Norwood/2001	Historic refuse deposit with 4 loci
19-187634	Slawson/2000	Mira Loma (War Eagle Field) hangars
19-187946	Hudlow/2006	Building foundation
19-187947	Hudlow/2006	Building foundation

Paleontological Resources Literature Review

As noted above, LACNHM performed a paleontological resources records search for the project site (in 2010) and for the City of Lancaster 2030 General Plan update (in 2008). In both instances, the LACNHM indicated that no known fossil localities have been previously recorded within the project site, but fossil localities have been found nearby from sedimentary deposits that are similar to those that occur in the project area (Appendix B-2; City of Lancaster 2008:5.10-3). The surface deposits in the project area are comprised exclusively of younger Quaternary alluvium in age beneath the soils. The LACNHM reports that these types of sedimentary deposits usually do not contain significant vertebrate fossils, particularly in the uppermost layers.

LACNHM identified known fossil localities LACM 5942 through 5953 related to pipeline excavations in Quaternary Alluvium and older Quaternary sediments several miles to the east-southeast of the project area along Avenue S from Little Rock extending east almost to the San Bernardino County Line. These sediments produced a fauna of small vertebrates including gopher snake, kingsnake, leopard lizard, cottontail rabbit, pocket mouse, kangaroo rat, and pocket gopher.

NAHC Search of the Sacred Lands File Review

The NAHC Search of the Sacred Lands File on May 3, 2010, did not indicate the presence of Native American cultural resources within one-half mile of the project site; however, there are resources in close proximity (refer to Appendix B-1). As previously mentioned, details of locations are limited to members of the Native American community. In addition, the NAHC provided a list of Native American groups and individuals that may have knowledge of the religious and/or cultural significance of resources that may be on and/or near the project site. Each of these groups and individuals were mailed an informational letter describing the project and requesting any information regarding resources that may exist on and near the project site.

Pedestrian Survey

A cultural resources survey of the project site was conducted on May 6, 2010, by Mr. Maxon and Mr. Albert Knight, Archaeologists, of BonTerra Consulting. The survey commenced in the northwestern corner of the approximate 63-acre project site. The site was surveyed utilizing east-west trending transects spaced approximately 10–15 meters apart across the entire project site from north to south. Several items and/or features were observed on the site that were determined to be worthy of additional research to determine historic significance. They are listed below.

- A small, finely chipped chalcedony flake was noted in the extreme northwestern corner of the project site.
- The bulk of the site, especially the northern two-thirds of the site, exhibited the remnants of an asphalt surface interpreted as what remains of the runway and taxiway of the former War Eagle Field.
- A wastewater facility was noted in the northeastern portion of the project site. It consists of a control shack, several round concrete containment structures, and a pump structure.
- A grouping of three portable runway lights (a steel pipe embedded in a triangular concrete block) were noted just north and east of the pump feature. They are currently off the project site although they were originally located on the project site.
- A manmade ditch extends from the western side of the project site, approximately 500 feet south of its southwestern corner, across the site to its eastern edge, approximately 375 feet south of the pump station.
- What appears to be a loading dock made of green painted corrugate steel with two large wooden support posts was noted in the southwestern portion of the project site.

Historic Resources Assessment

The Historic Resources Assessment evaluated all existing built environment resources on the project site, and included: 1) an abandoned loading ramp, 2) runway light fixtures, 3) broken sections of asphalt/concrete pavement, and 4) five structures associated with an abandoned aerobic wastewater treatment and water reclamation system. The location and existing condition of each of these resources is described below. A photograph of the abandoned aerobic wastewater treatment and water reclamation system is provided in Exhibit 4-5, Location G.

Loading Ramp

The loading ramp stands along, with no associated structures in the vicinity, within the southern portion of the project site near the Mira Loma Detention Center fence line. This structure is constructed of a ramp formed of dirt and gravel, with the front (west) wall of the ramp held in

place by sections of wood utility poles and heavy metal siding. The ramp does not appear to be associated with the former use of the land as an airfield, and may have been created to assist in the removal of the old runway pavement and other construction debris in the 1960s when the Tubercular Segregation Hospital and Recalcitrant Unit (now the HDHS MACC) was built to load waiting dump trucks from bucket loaders.

Runway Light Fixtures

Concrete and metal features found on the project site have been identified as runway lights. These light fixtures were collected from unknown locations and left in a group in the northeast area of the project site. Depending on their use (and color of lights displayed), these light fixtures would have been strategically placed either along or at the end of the runways to alert pilots performing night landings of the width, length and other details of the airfield. The lights were electrically powered either by cables run from a main power source or a remotely located power source like a battery. They are not currently connected to any power source, and their covers and bulbs have been removed. The concrete bases were most probably buried below ground level. Due to their height, they may have been located away from the runways, so as not to damage an errant airplane taking off or landing.

Pavement

Broken sections of asphalt pavement are located in various locations on both northern and middle sections of the project site. The airfield at War Eagle Field was centered around two large hangars at the northwest end of the training site. A 2,400-foot-long runway just south of the hangars was oriented to the northeast/southwest and the two 2,400 foot runways extended to the east and south away from the ramp. From a review of historic aerial photographs spanning 1944 to 2005, it appears that the Mira Loma Detention Center expanded to cover the area that was used as take-off and landing strips by the War Eagle Air Field. Some of the sections of the outlying areas of the airstrip pavement may be located within the project site, but the sections of pavement do not form a continuous linear feature that visually resembles or represents an airfield. The sections of pavement visible on the site could also have been dumped in the area during earlier construction projects.

Wastewater Treatment and Reclamation System

Five structures associated with a former aerobic wastewater treatment and water reclamation system are located along the eastern boundary of the project site, adjacent to the western fence line of the CMYC (Exhibit 4-5, Location G). Additional structures associated with this system are located within the boundary of the CMYC. Specifically, the sewage settling ponds (or lagoons) were located to the east where the CMYC is now located. The wastewater treatment and reclamation system appears to have been constructed in 1946 at the time the California Vocational Institute for Boys was opened on the site of the old Mira Loma Flight Academy and War Eagle Airfield. The system was later abandoned, in the late 1960s, when the City of Lancaster and the County of Los Angeles created a water reclamation system.

The five structures on the project site appear to be an in-ground pump house, pump house electric shed, two raw sewage separators, and a pre-treatment tank. The structures would have been the primary treatment location for the waste products and wastewater from the California Vocational Institute (later the Mira Loma Detention Center). The raw sewage would have been delivered to the primary treatment location by underground piping constructed of commonly found clay pipe, approximately 8 inches to 12 inches in diameter. Except for the pump house shed, all the structures are constructed of poured or cast concrete. They range in size from

15 to 25 feet in diameter. The small shed is of wood-frame construction and an electrical junction box is located on the south interior wall.

After receiving primary treatment at the structures located on the project site, the wastewater would have been pumped to the sewer system structures presently located within the CMYC site. The wastewater would then have been subject to secondary treatment and an aeration process, including the use of sludge digesters, to process the water for injection back into the water table and reclaim usable waste product for fertilizer. There are large cylindrical concrete structures above ground, and also underground concrete shafts located, in this area. Besides the concrete structures that are directly associated with the wastewater system, there are two wood-frame structures. The smaller of the buildings was used as a pump house and manager's office, and still contains some pumpheads. The other building was used as a small greenhouse.

Regulatory Requirements

RR 4.5-1 In accordance with *California Health and Safety Code*, Section 7050.5, if human remains are found during ground-disturbing activities, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery. If the County Coroner determines that the remains are or believed to be Native American, s/he shall notify the NAHC in Sacramento within 24 hours of the discovery. In accordance with PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendents shall complete their inspection within 48 hours of being granted access to the site by the property owner. The property owner would then determine, in consultation with a designated Native American representative, the final disposition of the human remains (*California Code of Regulations* §15064.5[e]). The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

4.5.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) Less Than Significant With Mitigation

CEQA requires a lead agency to determine whether a project may have a significant effect on one or more historical resources. A "historical resource" is defined as a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (§21084.1); a resource included in a local register of historical resources (§15064.5[a][2]); or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (§15064.5[a][3]).

Section 5024.1 of the *Public Resources Code* (PRC), Section 15064.5 of the CEQA Guidelines, and Sections 21083.2 and 21084.1 of the CEQA Statutes were used as the basic guidelines for the cultural resources study. PRC Section 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the CRHR. The purposes of the register are to maintain listings of the State's historical resources and to indicate which properties are to be protected

from substantial adverse change. The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the National Register of Historic Places (NRHP), enumerated above.

Pursuant to Section 15064.5(a)(3)(A–D) of the CEQA Guidelines, a resource is considered historically significant if it meets the criteria for listing on the CRHR, including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

Impacts to significant cultural resources that affect those characteristics of the resource that qualify it for the NRHP or adversely alter the significance of a resource listed on or eligible for listing on the CRHR are considered a significant effect on the environment. Impacts to cultural resources from the proposed project are considered significant if the project (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

Based on the thresholds described above, the loading ramp, runway light fixtures, and pavement were determined not to be significant historic resources, as part of the Historic Resources Assessment. The loading ramp was likely built after the War Eagle Air Field was closed, and served as a ramp to load dump trucks with construction debris associated with the expansion of the California Vocational Institute and later, the Mira Loma Detention Center. The runway lights were removed from their original locations, and these locations are unknown. They were likely removed from around the War Eagle Air Field landing strips when the airstrips were replaced with the construction of new buildings on the expanding grounds of Mira Loma Detention Center. Finally, the sections of pavement found in the project area may be remnants of the runway located farthest away from the War Eagle Air Field building complex. The sections have deteriorated to the point that they no longer present a visual representation of a historic landing strip, and they no longer have the qualities of integrity such as workmanship, design, setting, feeling, and association. Therefore, these three structures are not identified as historic resources, pursuant to CEQA. The removal of these structures during proposed project implementation would result in a less than significant impact, and no mitigation would be required.

However, the Historic Resources Assessment concluded the five on-site structures of the wastewater treatment and reclamation system, as well as the nearby structures at the CMYC, are eligible for listing in the National Register of Historic Places and the California Register of Historical Resources under several criteria.

Under Criteria A/1, the wastewater treatment and reclamation system appears eligible for listing as having contributed to the broad pattern of sewage treatment and water reclamation dating from the late 1930s to the post-World War II period. The system is particularly associated with the wastewater and water management needs that became apparent in the southwest United States and California in particular. The sewage treatment and water reclamation system appears to be eligible under Criteria C/3 as it presents a method of construction and technology

that was not widely adopted until almost twenty years later, and on a much larger scale. The small, self-contained system is a good example of all the steps necessary to treat the water and the structures required for the process. The system also contains the pumping equipment and support facilities necessary to maintain the water reclamation plant. The sewage treatment and water reclamation system has also retained its integrity with the qualities of location, design, setting, materials, workmanship and association. Therefore, the wastewater treatment and reclamation system was determined have the level of significance to be considered a historic resource.

Proposed project development in the area of the wastewater treatment and reclamation system should leave the system in place with implementation of a 30-foot buffer between the structures and any earthmoving or ground disturbance activities (as described in MM 4.5-1) to avoid significant adverse impacts to this historic resource.

There is a possibility that the sewer pipe that delivered the raw sewage to the wastewater treatment system, from what is now known as the Mira Loma Detention Center, still exists, and that it may still be connected to the wastewater treatment system. Such a pipe, if it exists, would not be considered part of the historic sewage treatment and water reclamation system structures because it is a common clay pipe not unique to this historic resource.

Ground-disturbing activities associated with construction of the proposed project may uncover this pipe. If such a sewer delivery pipe exists within the project site and is connected to the sewage treatment and water reclamation system, it may be cut and removed from the project site as required for construction, provided any ground disturbance on the project site is at least 30 feet away from the sewage treatment and water reclamation system, outside of the buffer zone.

Provision of the 30-foot buffer under MM 4.5-1 would protect the sewage treatment and water reclamation system from any damage and would allow for a 30-foot section of the common clay pipe to remain connected to the wastewater plant, preventing any disturbance to the historic resource.

The Historic Resources Assessment concluded that implementation of the recommended mitigation would reduce the impact to the historic resource on the site to a less than significant level.

b) Less Than Significant With Mitigation

As previously mentioned, a NAHC Search of the Sacred Lands File did not indicate the presence of Native American cultural resources within one-half mile of the project site; however, there are resources in close proximity. As previously mentioned, details of locations are limited to members of the Native American community in order to protect resources. A response to the information letter sent to the NAHC providing a list of Native American groups and individuals was received from Randy Guzman-Folkes (tribal representative) via telephone on May 11, 2010. Mr. Guzman-Folkes asked that the project proceed with caution because of the possibility of unforeseen resources and recommended that archaeological and Native American monitoring be undertaken during ground-disturbing activities.

A written response was received from William Gonzalez, Committee Chairman for the Fernandeño Tataviam Band of Mission Indians on May 20, 2010. The tribe is concerned that cultural resources might be impacted by the project as “numerous archaeological sites have been documented in the surrounding areas”. The tribe requests that the project “formally proceed with tribal consultation” and that the tribe be retained to provide monitors during the

project. Finally, the tribe requests that it be provided project information on proposed ground disturbance and any other processes that could impact resources.

The proposed project would not impact any known archaeological resources. However, given the fact that one prehistoric site is recorded within one mile of the project site, and the project site was the site of the former War Eagle Airfield, it is possible that grading and excavation for the project could impact unknown archaeological resources related to the prehistoric and historic use of the project site. This impact would be mitigated to a level considered less than significant with implementation of MM 4.5-2, which requires the County to retain a qualified Archaeologist to observe grading activities and to salvage and catalogue archaeological resources, as necessary. The qualified Archaeologist would also provide monitoring for any Native American archaeological resources that may be found on the site.

c) Less Than Significant With Mitigation

The LACNHM reports there are no known fossil localities within the project site or nearby areas. Therefore, implementation of the proposed project would not impact any known paleontological resources. LACNHM concluded that surface grading or shallow excavations on the project site are unlikely to encounter significant vertebrate fossils in the younger Quaternary Alluvium. However, deeper excavations that extend into older deposits may under significant paleontological resources. This potential impact would be mitigated to a level considered less than significant with implementation of MM 4.5-3, which requires that if a potential paleontological resource is discovered during construction activities, including trenching and/or utility pole excavation in Off-site Areas, that all activities be halted or diverted until a qualified Paleontologist inspects the find and evaluates it for significance.

d) Less Than Significant Impact

There is no indication that human remains are present within the project site. Native American tribes were given an opportunity to reveal the existence of any remains, background research including the literature review failed to find any potential for remains, and the project site was physically inspected. The proposed project would not impact any known human remains. However, grading and excavation could impact or unearth unknown burials. Compliance with RR 4.5-1 would ensure that potential impacts to human remains would be less than significant.

4.5.3 MITIGATION MEASURES

MM 4.5-1 Prior to any earthmoving or other construction activity in the vicinity of the wastewater treatment and reclamation system, the following steps shall be implemented by the Contractor:

1. A buffer that is a minimum of 30 feet from the former wastewater treatment system shall be placed between the sewage treatment and water reclamation system structures and any ground-disturbing or landscaping activities. This buffer zone must be enhanced by the installation of permanent fencing to protect the structures from construction activities associated with the installation of the solar energy project, as well as potential future vandalism.

2. There is a possibility that a utility sewer pipe that delivered the raw sewage to the wastewater treatment system, from what is now known as the Mira Loma Detention Center, still exists, and that it may still be connected to the wastewater treatment system. Such a pipe, if it exists, would not be considered part of the historic sewage treatment and water reclamation

system structures because it is a common clay pipe not unique to this historic resource. If such a sewer delivery pipe exists within the project site and is connected to the sewage treatment and water reclamation system, it may be cut and removed from the project site as required for construction, provided any ground disturbance on the project site is at least 30 feet away from the sewage treatment and water reclamation system, outside of the buffer zone.

The County shall confirm these requirements are included in the contractor specifications and contractor compliance with these requirements shall be performed to the satisfaction of the County Department of Public Works.

MM 4.5-2 Prior to commencement of construction activities, the County shall retain a qualified Archaeologist to observe grading activities and to salvage and catalogue archaeological resources, as necessary. The Archaeologist shall be present at the pre-grade conference; shall establish procedures for archaeological resource surveillance; and shall establish, in cooperation with the Project Engineer/Consultant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts, as appropriate. If archaeological resources are found to be significant, the Archaeologist shall determine appropriate actions, in cooperation with the County, for exploration and/or salvage. Work may proceed in other areas of the site, subject to the direction of the Archaeologist. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the County.

MM 4.5-3 If during project grading fossil resources are discovered by the Archaeological Monitor, Project Engineer/Consultant, or others, ground-disturbing activities in the vicinity of the discover shall be halted or diverted until a qualified Paleontologist inspects the find and evaluates it for significance. Work may proceed in other areas of the site, subject to the direction of the Paleontologist. If determined significant, the Paleontologist shall be empowered to quickly and efficiently salvage and remove the fossil from its locality, as appropriate, before ground-disturbing activities resume in the area. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the County.

Implementation of these mitigation measures would reduce impacts to less than significant levels.

4.6 GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to 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 fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

4.6.1 ENVIRONMENTAL SETTING

A Geotechnical Engineering and Engineering Geologic Evaluation Report (February 2011) has been prepared for the project by Twining Laboratories and is provided in Appendix C. The findings of the report are summarized, where relevant, in this section.

The Antelope Valley is located in the western edge of the Mojave Desert, which is bound by the San Andreas Fault Zone on the southwest, the Garlock Fault Zone on the northwest, and the Colorado River on the east. The Tehachapi Mountain range defines the northern and northwestern boundary of the Valley, and the San Gabriel, Sierra Pelona, and Liebre Mountains define the southern and southwestern boundaries. The Valley is relatively flat, except for the Quartz Hill to the south and the Fairmont and Antelope Buttes to the west (Lancaster 2009a). The project site is undeveloped and has a relatively flat topography (USGS 1974).

Southern California is a seismically active region where earthquakes occurring within approximately 60 miles of the site are generally capable of generating ground shaking (Twining Laboratories 2011). The San Andreas Fault is located approximately 5.5 miles

southwest of the project site, running northwest to southeast along the San Gabriel Mountains. The Pacific Plate and the North American Plate meet along this fault, with the Pacific Plate wedging itself beneath the North American Plate at a steep angle in a generally northwest to southeast direction. Movement of the plates has caused the faulting, folding, and uplifting along the San Andreas Fault (Lancaster 2009a).

Exhibit 4-6 depicts the soil types and liquefaction hazards associated with the project site. Soils in the Antelope Valley come from erosion of the San Gabriel Mountains. Alluvial deposits in the foothill areas consist of coarse-grained sediment intermingled with organic matter, while finer-grained silts and clays are found in areas farther from the mountains. The project site is underlain by alluvial deposits and overlain by the Pond-Tray soil association. These soils are very deep and moderately well-drained. They contain slight to moderate amounts of soluble salts and alkali. They have slow permeability, high water-holding capacity for irrigation, and low to high shrink-swell potential (Lancaster 2009a).

As part of the Geotechnical Engineering and Engineering Geologic Evaluation Report, subsurface conditions were evaluated by fourteen 8-inch-diameter borings on the site. The borings were drilled to depths of approximately 21 to 51.5 feet below the existing grade. Five of the borings show an approximately 1-foot thick fill over the site (associated with previous minor grading). The fill generally consists of yellow brown to orange brown to dark brown, moist, silt. The other borings indicate alluvium on the project site (beneath the fill and to the depth of all borings). The alluvium generally consists of yellow brown to orange brown to brown, medium dense to very dense, poorly graded sand with varying amounts of clay and silt and yellow brown to orange brown to brown, medium stiff to hard, silt and lean clay with varying amounts of sand (Twining Laboratories 2011).

The site is not located in an area identified by the Lancaster Master Environmental Assessment (MEA) as having moderate to high shrink-swell potential, sinkholes, or fissures. However, sinkholes and fissures are located north of the site and moderate shrink-swell potential is present to the southeast of the site (Lancaster 2009a). As shown on Exhibit 4-6, the southern portion of the project site is subject to liquefaction hazards. Groundwater levels within the project site are estimated to be approximately 60 feet below ground surface (Parsons 2010).

Regulatory Requirements

RR 4.6-1 The project shall be designed and constructed in compliance with Title 26, Building Code, of the County Code, which incorporates by reference the 2007 CBC and any applicable ordinances set forth by the County, for ensuring the structural integrity of proposed site improvements against seismic shaking. The County shall confirm this requirement is included in the building plans and contractor specifications. Contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

RR 4.6-2 In compliance with Chapter 1, Section 111, Engineering Geology and Soils Engineering, of Title 26, Building Code, of the County Code, the County Building Official shall require an Engineering Geology Report, a Soils Engineering Report, or both in cases where geotechnical hazards at a site warrant the need for safety evaluation. The Engineering Geology or Soils Engineering Report shall contain a finding regarding the safety of the building site for the proposed structure against hazards from landslides, settlement, or slippage and a finding regarding the effect that the proposed building, grading, or construction would have on the geotechnical stability of property outside the building site. The recommendations of the Geotechnical Engineering and Engineering

Geologic Evaluation Report that has been prepared for the project shall be implemented as part of the project design and construction. The County shall confirm that the recommendations are incorporated into the project design by the Project Engineer/Consultant and included in the contractor specifications. Project design and contractor compliance with these requirements shall be performed to the satisfaction of the County Department of Public Works.

See RR 4.9-1 and RR 4.9-2 from Section 4.9 Hydrology and Water Quality.

4.6.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a.i) No Impact

Surface Rupture. There are no known active faults traversing the project site, and the site is not located within an Alquist-Priolo Earthquake Fault Zone or zones established by Los Angeles County. The San Andreas Fault is the nearest earthquake fault to the site, and is located approximately 5.5 miles southwest of the site. Thus, the proposed solar array would not be exposed to fault rupture hazards along the San Andreas Fault. No mitigation is required.

a.ii) Less Than Significant Impact

Seismic Ground Shaking. The primary seismic hazard for the project site, as with most of the Southern California region, is the susceptibility to ground shaking due to the presence of major active or potentially active faults in the region. The following faults are capable of producing strong ground shaking at the project site (in order of increasing distance): the San Andreas Fault, the Garlock Fault, the White Wolf Fault, the South Lockhart-Helendale Fault System, the San Gabriel Fault, and the Sierra Madre Fault. The proposed Solar Energy Project would be exposed to strong ground shaking during a seismic event, which may pose hazards to employees or contractors who may be on-site during an earthquake (e.g., maintenance services), due to structural damage to the PV panels, mounting structures, equipment, equipment buildings, fencing, lighting, and/or electrical connections.

As required by RR 4.6-1, the proposed project must be designed and constructed to comply with Title 26, Building Code, of the County Code, which includes earthquake design parameters and incorporates by reference the 2007 California Building Code (2007 CBC) in order to ensure the structural integrity of proposed site improvements against seismic shaking. Compliance with RR 4.6-1 would ensure that impacts due to ground shaking associated with a seismic event would be less than significant.

a.iii) Less Than Significant Impact

Secondary Seismic Effects. Potential secondary seismic effects of strong seismic ground shaking include liquefaction, lateral spreading, and seismically induced settlement/differential compaction.

Liquefaction and Lateral Spreading. Liquefaction occurs when loose, cohesionless, water-saturated soils (generally fine-grained sand and silt) are subjected to strong seismic ground motion of significant duration. These soils essentially behave similar to liquids, losing bearing strength. Structures built on these soils may tilt or sink when the soils liquefy. Liquefaction occurs in earthquake-prone areas underlain by young alluvium where the ground water table is less than 50 feet below the ground surface. As shown on Exhibit 4-6, the

California Geological Survey identifies the southern section of the site as having liquefaction potential, although groundwater is estimated to be approximately 60 feet below ground surface.

In compliance with RR 4.6-2, site development must be evaluated pursuant to Chapter 1, Section 111, Engineering Geology and Soils Engineering, of Title 26, Building Code, of the County Code, which requires an Engineering Geology Report, a Soils Engineering Report, or both in cases where geotechnical hazards at a site warrant the need for safety evaluation to be submitted to the County Building Official. A Geotechnical Engineering and Engineering Geologic Evaluation Report has been prepared for the project and the findings of the report indicate that there are no zones of potentially liquefiable soil on the site, due to the lack of groundwater present within the upper 50 feet of the site (Twining Laboratories 2011). Thus, no impact related to liquefaction is expected.

Settlement. Strong ground shaking can also cause settlement by allowing sediment particles to become more tightly packed, thereby reducing pore space. Unconsolidated, loosely packed granular alluvial deposits, such as those present on the project site, are susceptible to this phenomenon. As previously discussed, compliance with RR 4.6-1, which requires compliance with the 2007 CBC, and RR 4.6-2, which requires design and construction to be evaluated pursuant to Title 26, Building Code, of the County Code, ensures the proposed project would be designed and constructed in accordance with all applicable codes and requirements. The Geotechnical Engineering and Engineering Geologic Evaluation Report estimates seismic settlement of up to 0.1 inches is anticipated at the site (Twining Laboratories 2011). This settlement value will be used in the structural design of the proposed improvements for the project and impacts due to settlement would be less than significant.

a.iv) No Impact

Landslides. No natural or artificial slopes exist on or near the project site. The Geotechnical Engineering and Engineering Geologic Evaluation Report indicates that the potential for an earthquake-induced landslide to occur at the site is remote (Twining Laboratories 2011). Therefore, the risk of seismically induced landslides is considered to be very low, and no impact would occur.

b) Less Than Significant Impact

The largest source of erosion and topsoil loss, particularly in a suburban or urban environment, is uncontrolled drainage during construction. The proposed project would require approximately 10 months to complete each 2 MW of capacity, including activities such as surface grading and shallow excavations for the construction of equipment building foundations, fence posts, electrical conduit trenching, utility pole excavation, and mounting structure foundations. As discussed in more detail in Section 4.9, Hydrology and Water Quality, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into “Waters of the U.S.”. As required by RR 4.9-1, construction activities shall be conducted in compliance with the statewide NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities, Order No 2009-009-DWQ, NPDES No. CAS000002, adopted by the SWRCB on September 2, 2009, effective for all project sites on July 1, 2010.

In compliance with the NPDES permit, erosion potential during construction of the proposed project would be managed with Best Management Practices (BMPs) implemented on the project site as part of a Storm Water Pollution Prevention Plan (SWPPP) during construction activities to minimize erosion impacts in accordance with NPDES requirements. Implementation of the BMPs would reduce construction-related erosion impacts to less than significant levels.

Concrete pads and footings would result in the creation of minor amounts of impervious surfaces on the project site, which would result in the long-term loss of accessible topsoil. Soil erosion currently occurs on the site due to high winds. Erosion would be reduced in areas that would be improved with the equipment buildings, mounting structure foundations, and internal roadway. Thus, a minor reduction in erosion potential would occur. As discussed in more detail in Section 4.9, Hydrology and Water Quality, compliance with RR 4.9-2 would require the installation and maintenance of appropriate post-construction treatment control Best Management Practices (BMPs) pursuant to the requirements of the Los Angeles County Department of Public Works' *Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual.* Therefore, the project would not increase soil erosion in the long-term, and impacts on soil erosion would be less than significant.

c, d) Less Than Significant Impact

In compliance with RR 4.6-2, future development on the site must be evaluated pursuant to Chapter 1, Section 111, Engineering Geology and Soils Engineering, of Title 26, Building Code, of the County Code, which requires an Engineering Geology Report, a Soils Engineering Report, or both in cases where geotechnical hazards at a site warrant the need for safety evaluation to be submitted to the County Building Official. The Geotechnical Engineering and Engineering Geologic Evaluation Report for the project indicates that there are no zones of potentially liquefiable soil on the site and the exposed soils have a very low to low expansion potential. In addition, the report does not identify hazards related to landslide, lateral spreading, subsidence, or soil collapse (Twining Laboratories 2011). Structural design and construction of proposed site improvements would need to implement the recommendations in the Geotechnical Engineering and Engineering Geologic Evaluation Report in accordance with SC 4.6-2 to reduce geologic hazards to less than significant levels.

e) No Impact

The proposed solar array would not include toilets, kitchens, or bathrooms that would generate wastewater requiring disposal into the sewer system or a septic tank. Thus, the on-site soils would not pose limitations to septic tanks or alternative waste water disposal systems since none are proposed as part of the project. No impact would occur.

4.6.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to geology and soils; therefore, no mitigation is required.

4.7 GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

4.7.1 ENVIRONMENTAL SETTING

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities appears to be closely associated with global warming (OPR 2008).

GHGs, as defined under California's Assembly Bill 32 (AB 32), include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). General discussions on climate change often include water vapor, ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry (CCAR), as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, ozone, or aerosols is provided.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO_2. For example, since CH_4 and N_2O are approximately 21 and 310 times more powerful than CO_2, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 21 and 310, respectively (CO_2 has a GWP of 1). Carbon dioxide equivalent (CO_2e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4-11.

TABLE 4-11
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO_2)	50.0–200.0	1
Methane (CH_4)	12.0	21
Nitrous Oxide (N_2O)	114.0	310
HFC-134a	48.3	1,300
PFC: Tetrafluoromethane (CF_4)	50,000.0	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000.0	9,200
Sulfur Hexafluoride (SF_6)	3,200.0	23,900
Source: CCAR 2009		

AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is the source of substantial amounts of GHG emissions. The statute states that:

> Global warming poses a serious threat to the economic well being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 28 percent from forecasted emission levels, with further reductions to follow. The project site is undeveloped and does not directly generate greenhouse gas (GHG) emissions due to the absence of on-site water use, energy use and vehicle trip generation.

4.7.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) No Impact

In developing methods for GHG impact analysis, there have been suggestions of quantitative thresholds, often referred to as screening levels, that define an emissions level below which it may be presumed that climate change impacts would be less than significant. Neither the County nor the AVAQMD have developed screening thresholds for GHG emissions. Therefore, the South Coast Air Quality Management District's (SCAQMD's) proposed CEQA GHG screening threshold of 10,000 $MTCO_2e$/yr for industrial projects where the SCAQMD is the lead agency will be used (SCAQMD 2008). One other agency, the Bay Area Air Quality Management District (BAAQMD), has adopted a threshold of 10,000 $MTCO_2e$/yr for operational-related GHG emissions from stationary sources. In the absence of a more specific threshold, the 10,000 $MTCO_2e$/yr threshold is the most applicable to this analysis.

Construction

The principal source of GHG emissions during the construction of the proposed project would be the internal combustion engines of demolition and construction equipment, on-road construction vehicles, and workers' commuting vehicles. The URBEMIS Model program that is used to calculate criteria pollutant emissions also calculates CO_2 emissions. Although the model does not calculate emissions of the other GHGs, the relationships of methane (CH_4) and nitrous oxide (N_2O) to CO_2 emissions for diesel engines are known, and the estimates of CO_2 may be adjusted to estimate CO_2e emissions. For the proposed project, GHG emissions during construction are estimated at 823 $MTCO_2e$. This is a worst-case and conservative scenario since it assumes that asphalt removal would occur during both phases of construction. Calculation data are included in Appendix A.

GHG emission reduction measures for construction equipment are relatively limited. Therefore, in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*, the SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). That methodology is used in this analysis, and there is no quantitative evaluation of significance for construction impacts. Instead, the construction GHG emissions are included in the total GHG emissions from the project, as discussed below. As described in Section 4.17.3, RR 17-1 requires at least 50 percent of all C&D debris, soil, rock, and gravel removed from a project site to be recycled or reused unless a lower percentage is approved by the Los Angeles County Director of Public Works. By complying with this SC, the construction activity would be consistent with one of the goals of AB 32, which is to reduce GHG emissions through increased recycling.

Operations

The operation of the proposed project would involve infrequent maintenance and repair activities, and washing of the PV panels using a truck with a water tank and sprayer between one and four times per year, depending on the accumulation of dust on the surfaces. If adjustable tilt and manual tracking systems are used, manual adjustments would need to be made four times a year to change the tilt of the PV panels. Long-term operation of the Solar Energy Project would generate 36 to 48 vehicle trips (18 to 24 site visits) per year, which translates to no more than 2 vehicle trips every 2 weeks. With the conservative assumption of 48 annual trips at a one-way distance of 50 miles, annual GHG emissions from maintenance visits would be 1.2 $MTCO_2e$. As noted above, SCAQMD recommends the evaluation of construction emissions as annual operating emissions by amortizing the construction emissions over the life of the project, nominally 30 years. Therefore, direct project GHG emissions would be approximately 27.4 $MTCO_2e$/yr from construction activities and 1.2 $MTCO_2e$/yr from long-term maintenance activities. (The calculations are shown in Appendix A.) A total of 28.6 $MTCO_2e$/yr would be generated by the proposed project, which would be below the SCAQMD threshold of 10,000 $MTCO_2e$/yr and would be considered less than significant.

Conversely, the proposed solar facility would be capable of generating up to 4 MW of electricity under peak solar conditions. The energy generated by the proposed project would replace the energy consumption provided by burning of fossil fuels and the use of water at central power generation plants, thereby resulting in an indirect reduction of GHG emissions. Data from the U.S. Department of Energy and enXco, a solar project supplier, indicate that PV generation of electricity would reduce GHG emissions by 580 to 1,075 $MTCO_2e$/yr per MW of solar array capacity (USDOE 2010, enXco 2010).

The wide range of values is related to many factors including, but not limited to, the efficiency of the solar panels, the mounting scheme, and the local GHG "cost" of electricity. Thus, the

proposed project is anticipated to result in GHG emissions reductions of 1,160 to 2,150 $MTCO_2e$/yr when operating at the 2 MW level and 2,320 to 4,300 $MTCO_2e$/yr when operating at the 4 MW level. Therefore, the implementation of the project would result in a net regional or global reduction of GHG emissions compared with the existing conditions.

As stated, a total of 28.6 $MTCO_2e$/yr would be generated by the proposed project from construction and operational activities. With the reduction of at least 1,160 $MTCO_2e$/yr from a 2 MW facility or 2,150 $MTCO_2e$/yr from a 4 MW facility, the project would have a net benefit of at least 1,130 $MTCO_2e$/yr in GHG emissions by replacement electrical energy use at the Mira Loma Detention Center and CMYC with solar energy.

GHG emissions from the project would not be cumulatively considerable; the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

b) No Impact

The Countywide Energy and Environmental Policy, adopted by the Board of Supervisors of the County of Los Angeles on January 16, 2007, sets forth guidelines and programs for the development and enhancement of energy conservation and environmental programs within County departments. This County Policy consists of the following programs:

- Energy and Water Efficiency Program
- Environmental Stewardship Program
- Public Outreach and Education Program
- Sustainable Design Program

Under the Energy and Water Efficiency Program, the County has set forth the goal of reducing energy (electricity and natural gas) and water consumption in County facilities by 20 percent by the year 2015. Under the Environmental Stewardship Program, the County seeks to reduce its environmental footprint, including a reduction in greenhouse gases produced through the direct and indirect operations (Los Angeles County 2010b).

By providing a new source of renewable energy with the proposed Solar Energy Project, the County would reduce air pollution and GHG emissions generated by the burning of fossil fuels and/or the use of water at central power generation plants, and thus, with be consistent with the objectives and programs of the Countywide Energy and Environmental Policy.

AB 32 requires CARB to develop a Scoping Plan to lower the State's GHG emissions to meet the 2020 limit (*California Health and Safety Code* §§38500 et seq.). The Scoping Plan was approved at the December 2008 CARB meeting. The measures in the Scoping Plan adopted by CARB will be developed over the next three years and are expected to be in place by 2012. A key element of the Scoping Plan is achievement of a statewide renewable energy mix of 33 percent (CARB 2008). By providing a new source of renewable energy, the proposed project would be consistent with the renewable energy measure of the CARB Scoping Plan. The overall goal of AB 32 is reductions in GHG emissions. As demonstrated above, the proposed project would result in a net reduction of GHG emissions, consistent with AB 32. The project would not conflict with the applicable plans or policies to reduce GHG emissions.

4.7.3 MITIGATION PROGRAM

Project implementation would not result in significant impacts related to greenhouse gas emissions; therefore, no mitigation is required.

4.8 HAZARDS/HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
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 people residing or working in the project area?	☐	☒	☐	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☒	☐	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to developed areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

4.8.1 ENVIRONMENTAL SETTING

The discussion of past and current hazardous material users on and near the site is based on the Phase I Environmental Site Assessment (ESA) prepared by Parsons in February 2010. The Phase I ESA is located in Appendix D.

On-site Hazardous Material Use. Because the project site is currently vacant, with the exception of the abandoned wastewater treatment facility discussed in Section 4.5, the site does not utilize hazardous materials or generate hazardous wastes. There are no known hazardous materials, petroleum products, hazardous wastes, or petroleum wastes on the site. Obvious signs of soil contamination from hazardous materials and petroleum products were not observed on the project site during site reconnaissance performed as part of the Phase I ESA.

Trash dumpsters and construction materials/wastes are present at the western edge of the site, near the Mira Loma Detention Center and HDHS MACC. Broken asphalt paving is present throughout the site, with steel plates, loading dock remnants, steel posts, concrete bench, steel members, dead tree stumps, and dirt piles present at scattered locations. Three dirt roads cross the site, which are used by the County Sheriff's Department to patrol the perimeter of the Mira Loma Detention Center and surrounding areas.

Former land uses on the site include the airfield of the Polaris Flight Academy (later renamed the Mira Loma Flight Academy) from 1941 to 1945. The site has remained vacant since then. However, the Polaris Flight Academy remains on the California Department of Toxic Substances Control (DTSC) list as a Formerly Used Defense Site with a status of "Inactive – Needs Evaluation".

Adjacent Hazardous Material Users. Review of government databases indicated that adjacent users of hazardous materials or generators of hazardous wastes include the former High Desert Hospital (i.e., where the current HDHS MACC operates) to the west of the project site, and Butler Oil Company, located nine miles east of the site. Operations at the former High Desert Hospital involved the use of chemicals, hazardous materials, and radioactive materials. The HDHS MACC, which now operates out of the former High Desert Hospital buildings, uses chemicals and hazardous materials for the sewage lift station, outpatient laboratory, and emergency generator. Degreasers are limited to 16-ounce spray cans. An aboveground liquid oxygen tank (likely for generation of medical-use oxygen) and an underground petroleum storage tank (likely used to fuel the back-up emergency generator) are located within this facility. Biohazardous wastes are temporarily stored in 30-gallon plastic containers in a fenced holding area.

The Mira Loma Detention Center currently houses federal detainees awaiting deportation hearings. There are automotive repair activities in Building 3644 (hangar) of this facility. Sodium hypochlorite tablets are used for the chlorination system at the on-site water treatment plant. Paint, lamps, tubes, and waste batteries are picked up for disposal by an outside contractor. An aboveground storage tank is located at the helipad of this facility, as well as an underground petroleum storage tank. Leaks from the underground tank were cleaned up and the case was closed in 2003.

The CSP-LAC is located south of the project site. This State facility was constructed in 1991 and houses approximately 4,760 inmates. There is an underground petroleum storage tank at this facility. On-site contamination by heavy metals occurred in 1991, with excavation completed the same year. The DTSC recommended a Preliminary Endangerment Assessment to address illegal disposal of contaminated soils from the site to the firing range.

Nearby Airports. The nearest airport to the site is the General William J. Fox Airfield, which is located two miles north of the site. This general aviation airport is owned by the County of Los Angeles and serves as a flight training facility for aircraft and pilots from the Los Angeles Basin and as an air attack base for U.S. Forest Service firefighting aircraft (ALUC 2004). It handles an average of 224 operations per day (AirNav 2009). The *General William J. Fox Airfield Land Use Compatibility Plan*, adopted by the Los Angeles County Airport Land Use Commission (ALUC) in December 2004, sets forth land use compatibility policies applicable to future development in the vicinity of the airport. The policies are designed to ensure that future land uses in the surrounding area will be compatible with the potential long-range aircraft activity at the airport. In Los Angeles County, the Regional Planning Commission is given the responsibility for coordinating the airport planning of public agencies within the County and functions as the ALUC. The statutes governing ALUCs are set in the State Aeronautics Act part of the *California Public Utilities Code* (Title 24).

The project site is located within the Area of Influence and within the general traffic pattern envelope (where 80 percent of aircraft overflights occur) for this airport. As shown in Exhibit 4-10, the northern and central sections of the project site are located within Zone E (Other Airport Environs) of the Compatibility Zones for this airport. Zone E has no restrictions on density and land use, but prohibits "hazards to flight", which include tall objects (over 100 feet), visual and electronic forms of interference with the safety of aircraft operations, and land uses that attract birds. Major spectator-oriented sports stadiums, amphitheaters, and concert halls are also discouraged beneath principal flight tracks (ALUC 2004).

There is a helipad at the Mira Loma Detention Center, south of West Avenue I and adjacent to the northwestern corner of the project site. The approach zone for the helipad begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet with a width of 500 feet. The slope of this approach surface is 8 to 1. The transitional surfaces for the helipad extends outward and upward from the lateral boundaries of the heliport primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces. The primary and transitional surfaces of the helipad are not located on the site, but the approach zone includes the northern section of the site, east of the helipad.

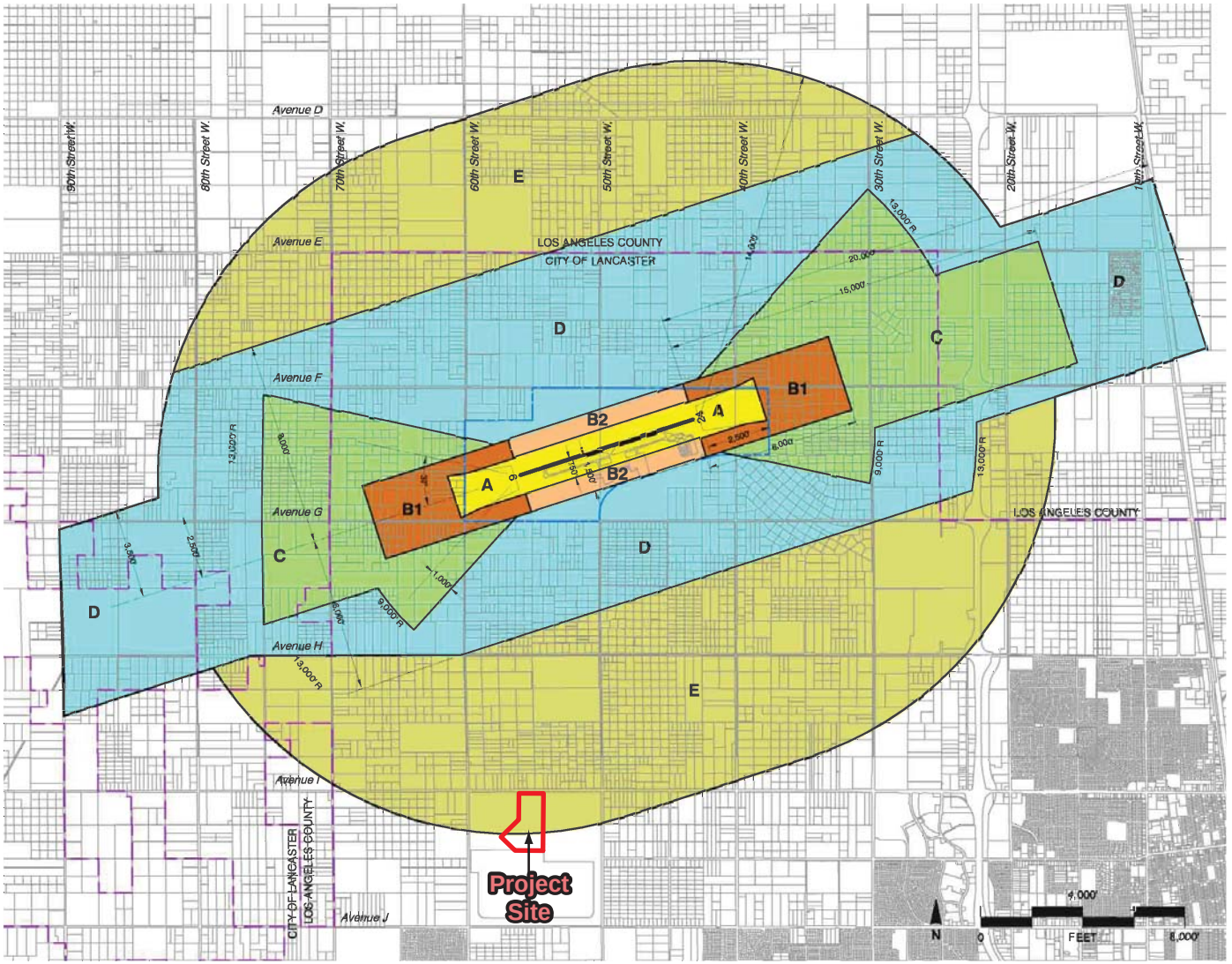
Wildfire Hazards. The project site is not located in areas designated as Very High or High Fire Hard Severity Zones, as mapped by the California Department of Forestry and Fire Protection (CAL FIRE 2007).

Regulatory Requirements

RR 4.8-1 During construction activities, any contaminated soils or other hazardous materials encountered on the project site requiring off-site disposal shall be transported off-site by a properly licensed hazardous waste hauler who shall be in compliance with all applicable State and federal requirements, including California Department of Transportation (Caltrans) regulations under Title 49 of the *Code of Federal Regulations* (CFR). Hazardous materials that may be encountered during proposed project implementation would be handled, treated, and/or disposed of in accordance with applicable regulations and/or the requirements of the local oversight agency(ies). The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

RR 4.8-2 The Contractor shall conduct construction activities in compliance with the regulations of the Los Angeles County Fire Department, which serves as the designated Certified Unified Program Agency (CUPA) and implements the State and federal regulations related to: (1) Hazardous Waste Generator Program, (2) Hazardous Materials Release Response Plans and Inventory Program, (3) California Accidental Release Prevention Program (Cal-ARP), (4) AST Program, and (5) UST Program. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Fire Department.

RR 4.8-3 The Contractor shall conduct construction activities in compliance with the Section 1532.1 of Title 8 of the *California Code of Regulations*, which requires removal of lead-based paint or other materials containing lead to be performed



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line
- Lancaster City Limits

Note:

Airport influence over boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

General William J. Fox Airfield
Land Use Compatibility Plan, 2004

ALUP Compatibility Zones

Exhibit 4-10

County of Los Angeles Solar Energy Project

N W E S

BonTerra CONSULTING

(Rev 05/19/10 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex4-10_airport_zones.pdf

D:\Projects\CoLACAO\J006\Graphics\Ex_yairport_zones.ai

and monitored by contractors with appropriate certifications from the California Department of Health Services. All activities that could result in the release of lead shall be conducted according to CalOSHA standards. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

RR 4.8-4 Pursuant to the California State Aeronautics Act (*California Public Utilities Code* §§21670 et seq.), prior to construction, the County shall submit plans for the proposed solar array for approval by the Los Angeles County Regional Planning Commission, acting as the ALUC, for compliance with the *General William J. Fox Airfield Land Use Compatibility Plan*. The County shall implement the recommendations of the ALUC to prevent the creation of land use incompatibilities and flight hazards to aircraft operations at Fox Airfield. The County shall require the Project Engineer/Consultant and contractor to comply with the recommendations, as necessary, through their incorporation into the project design and/or the contractor specifications. Project design and contractor compliance with the requirements shall be performed to the satisfaction of the County Department of Public Works.

RR 4.8-5 Construction traffic would be managed in compliance with the FHWA's *Manual on Uniform Traffic Control Devices* and applicable City requirements to limit roadway obstruction and the need for temporary detours. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

4.8.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) Less Than Significant Impact

The proposed Solar Energy Project would not utilize, store or generate hazardous materials or wastes that may pose a significant hazard to the public. However, construction activities associated with the project would involve the use of hazardous materials for construction, such as solvents, acids, curing compounds, grease, oils, and other chemicals, which could pose risks to construction workers or lead to soil and groundwater contamination, if not properly stored, used, and disposed of. Compliance with existing hazardous material regulations would ensure that potential hazards during construction activities would be less than significant. These include the Hazardous Material Transportation Act (RR 4.8-1) and the Certified Unified Program Agency (CUPA) (RR 4.8-2).

b, d) Less Than Significant with Mitigation

The Mira Loma Detention Center and the HDHS MACC are listed in government databases for the presence of aboveground storage tanks (ASTs) and underground storage tanks (USTs). The HDHS MACC also utilizes hazardous materials and generates biohazardous wastes. The Polaris Flight Academy, which formerly operated on the site, and the CSP-LAC to the south are also on the DTSC list.

Hazardous materials or petroleum use at the former Polaris Flight Academy may have occurred at or close to the airplane hangars in the current location of the Mira Loma Detention Center. No aircraft crashes are known to have occurred at the former runways where the project is

proposed. Any leaks or spills of aviation fuel, which is highly volatile, are unlikely to have resulted in any residual contamination. Additionally, soil contamination that occurred at the CSP-LAC to the south may have affected the site. If present, contamination could pose hazards to the construction crew and maintenance personnel who would be present on the site.

Trash and debris located within the southwestern portion of the site would need to be removed and disposed of prior to construction of the project. These include construction materials with painted surfaces, metal sheets, and a former loading dock, which may have lead-based paint (Parsons 2010). Because of its toxic properties, lead is regulated as a hazardous material. Inorganic lead is also regulated as a toxic air contaminant. Lead exposure could pose health risks to construction workers or lead to soil and groundwater contamination if not properly removed, stored, or disposed of. In order to ensure that workers are not accidentally exposed to lead contamination, MM 4.8-1 requires construction materials on the site (including any painted surfaces of construction debris and the former loading dock) be sampled for lead-based paint. In the event that lead-based paint is detected, all removal and disposal shall be conducted in accordance with applicable regulatory requirements.

In California, lead abatement must be performed and monitored by contractors with appropriate certifications from the California Department of Health Services. In addition, California Occupational Safety and Health Administration (CalOSHA) has regulations to protect worker safety during potential exposure to lead under Title 8 of the *California Code of Regulations*, Section 1532.1 (Lead). Therefore, as required by RR 4.8-3, all demolition that could result in the release of lead must be conducted to protect the general population and construction workers from respiratory and other hazards associated with exposure to these materials. Compliance with RR 4.8-3 and implementation of MM 4.8-1 would ensure that potential impacts associated with lead exposure would be less than significant.

Construction activities would involve surface grading and possibly the removal of broken asphalt in certain areas. Therefore, workers on site would be exposed to soil and asphalt during construction activities. MM 4.8-2 requires grading and excavation activities to cease immediately if unusual soil staining and/or odors are encountered during earthmoving activities, and soil testing would be required to determine if residual contamination of hazardous materials or petroleum products is present in on-site soils. If chemical levels are above regulatory standards, remediation and/or removal of contaminated soils in compliance with applicable local, State, and federal standards and requirements shall be conducted prior to project construction. Additionally, disposal of any contaminated soils would be conducted in compliance with existing hazardous material regulations, including the Hazardous Material Transportation Act (RR 4.8-1) and the Certified Unified Program Agency (CUPA) (RR 4.8-2). Compliance with RR 4.8-1, RR 4.8-2, and implementation of MM 4.8-2 would ensure that potential hazards during construction activities would be less than significant.

Long-term maintenance personnel performing inspections and maintenance at the site would be limited to a few hours during their 18 to 24 visits per year. If hazardous soils are encountered during project construction activities, remediation would be conducted in compliance with applicable regulations. There would be no long-term exposure hazards associated with maintenance activities.

There are no ASTs, USTs, pipelines, hydrant fueling, transfer systems, structures that may contain asbestos, transformers that may contain polychlorinated biphenyls (PCB), stained soil, pavement or concrete, stressed or protected vegetation, septic systems, or other signs that indicate past or current use of hazardous materials on the site.

Cleaning of the PV panels would involve water spraying of the panels to remove dust buildup. However, soap, detergent, glass cleaner, surfactants, or chemicals can be used to remove grime, bird droppings, and/or soot from the PV panels. Water and any cleansers would be absorbed into the soils and may lead to soil and/or groundwater contamination over time. Therefore, no cleaning agents or additives should be used with the water for panel cleaning. However, if cleaning agents or additives are necessary, MM 4.8-3 requires the cleaning agents to be biodegradable, non-toxic, and non-hazardous to plants, animals, and the groundwater.

Impacts associated with past hazardous materials use on and near the site would be mitigated by implementation of MM 4.8-2. Potential hazards associated with future use of cleansing additives would be mitigated by compliance with MM 4.8-3. Impacts would be less than significant after mitigation.

c) No Impact

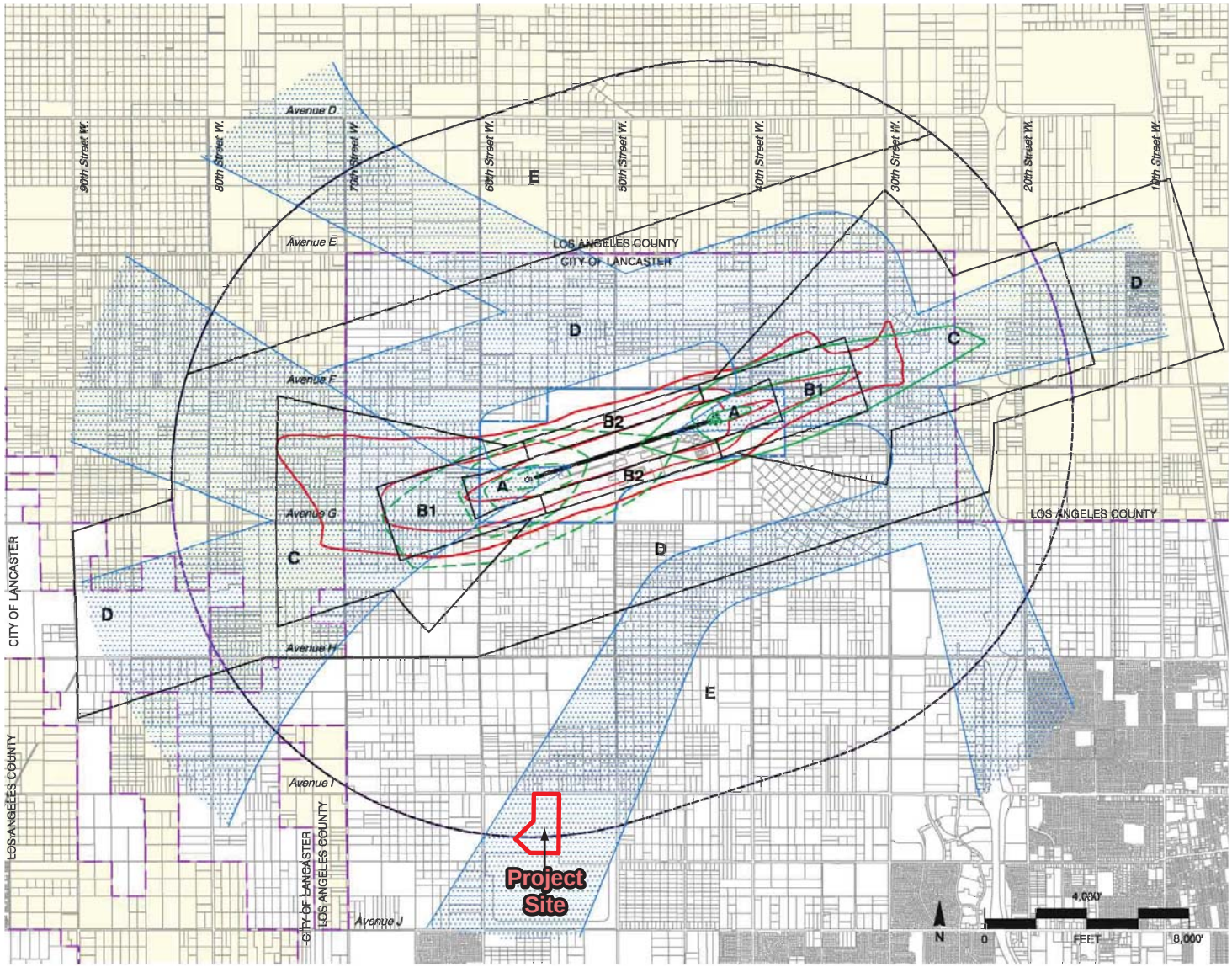
There are no schools located within approximately 0.25 mile of the project site. The nearest school is Sundown Elementary located at 6151 W. Avenue J-8, approximately 1.3 miles to the south of the project site. Also, the proposed project would not lead to hazardous emissions nor handle hazardous or acutely hazardous materials, substances, or waste. As discussed under threshold “a” above, limited hazardous materials use would occur during construction, but these would be handled and disposed of in accordance with applicable regulatory standards (RR 4.8-1 and RR 4.8-2) and would not affect the nearest school, which is located approximately 1.3 miles south of the project site. Therefore, no impacts on nearby schools would occur.

e, f) Less than Significant with Mitigation

As discussed above, the nearest airport to the site is the General William J. Fox Airfield, which is located two miles north of the site, and the northern and central sections of the project site are located within Zone E (Other Airport Environs) of the Compatibility Zones for this airport. As shown in Exhibit 4-11, the project site is located in an area with a low risk for aircraft accidents (only 2 percent of near-airport accidents occur in Zone E). However, the project site is located within the general traffic pattern envelope (where 80 percent of aircraft overflights occur). Additionally, the ALUP states that within Zone E, hazards to flights (e.g., tall objects, visual and electronic forms of interference with the safety of aircraft operations, and attractions for birds) are prohibited.

As previously discussed in Section 4.1, Aesthetics, the project has limited potential to result in glare associated with the PV panels. Also, MM 4.1-1 would verify that potential glare from the project would not adversely affect prison guards or other law enforcement personnel on adjacent properties. The solar array has the potential to generate glare that could impact general air traffic. The PV panels would be facing southerly and glare from the PV panels have a potential to affect pilot vision in aircraft that are on approach to the airfield runway of Fox Airport. Depending on the tilt of the panels and mounting system used, as well as the approach direction and height of the aircraft, glare impacts could occur during different times of the daylight hours.

According to Section 2.4.7 of the ALUP, specific project characteristics to be avoided include glare or distracting lights that could be mistaken for airport lights. As specified in Appendix A (Compatibility Guidelines for Specific Land Uses) of the ALUP, there are no restrictions on transportation, communications, or utilities uses within Zone E, although there is no discussion of solar facilities specifically. RR 4.8-4 sets forth the requirement for the County to submit the proposed project for review by the ALUC to ensure that no land use incompatibilities or flight hazards are created on site. The County shall require the Project Engineer/Consultant and



Legend

Compatibility Zones
- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Noise and Overflight Compatibility Factors
- 65 dB CNEL
- 60 dB CNEL
- 55 dB CNEL
- General Traffic Pattern Envelope (approximately 80% of aircraft overflights estimated to occur within these limits)

Safety and Airspace Compatibility Factors
- Aircraft Departure Accident Risk Intensity Contours * (Shown Only for Takeoffs to the West)
- Aircraft Approach Accident Risk Intensity Contours * (Shown Only for Landings from the East)
- FAR Part 77 Conical Surface Limits

Boundary Lines
- Airport Property Line
- Lancaster City Limits
- Sphere of Influence (as of September 2003)

* Aircraft accident risk intensity contours are derived from accident location data in California Division of Aeronautics database. The contours represent relative intensities (highest concentrations) of near-airport accidents in 20% increments.

General William J. Fox Airfield
Land Use Compatibility Plan, 2004

Fox Airfield Air Traffic Patterns

Exhibit 4-11

County of Los Angeles Solar Energy Project

BonTerra CONSULTING

(Rev 05/24/10 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex4-11_air_traffic_patterns.pdf

D:\Projects\CoLACAO\J006\Graphics\Ex_air_traffic_patterns.ai

contractor to comply with the ALUC recommendations, as necessary, through their incorporation into the project design and/or the contractor specifications. Compliance with the requirements set forth in the ALUC review process will ensure that potential hazards associated with glare from the Solar Energy Project would be less than significant.

The solar array would not exceed the 100-foot height restriction for objects within Zone E, and would therefore not present a potential obstruction to airspace or require review in accordance with Part 77 of the Federal Aviation Regulations of the Federal Aviation Administration (FAA). Additionally, the proposed project would not involve electronic forms of interference that may affect the safety of aircraft operations; land uses that attract birds; or high intensity uses, (e.g., spectator-oriented sports stadium, amphitheater, or concert hall).

The helipad of the Mira Loma Detention Center is located northwest of the site. In accordance with FAA guidelines, the approach zone is defined by an imaginary surface extending out at a slope of 8:1 from the Final Approach and Takeoff Area (FATO) of the helipad. The transitional zone is defined by an imaginary surface extending out at a slope of 2:1 from the FATO. The proposed PV panels on the site would be approximately 15 to 20 feet off the ground. Since the helipad is approximately 110 feet from the western site boundary, the proposed solar array would not extend into the transitional surface but could be within the approach zone of the helipad. If the height of the solar panels is at a maximum of 20 feet, the solar panels should not be located within 50 feet of the western project site boundary adjacent to the helipad (or 160 feet from the helipad). If the solar panels are higher or lower than 20 feet, proportionate adjustments to the setback from the helipad would be necessary to ensure they do not extend into the approach zone and affect helipad operations. In order to ensure that the proposed solar facilities do not pose a hazard to helipad operations, MM 4.8-4 requires that the design of the solar array must avoid extending into the approach zone for the helipad Implementation of MM 4.8-4 would ensure that potential impacts to helipad operations would be less than significant.

g) Less than Significant Impact

The City of Lancaster has an adopted Emergency Operations Plan (EOP) that details the responsibilities of private organizations and federal, State, and local agencies in the event of disaster. West Avenue I has been identified as an evacuation route (Lancaster 2009a). However, no improvements are proposed on West Avenue I in association with the proposed project. Construction activities would be staged on the project site, or within the vegetated area to the southwest of the project site adjacent to the HDHS MACC, and would not obstruct evacuation procedures or implementation of the City's EOP.

The proposed project may temporarily impact adjacent roadways during construction although no new driveways or driveway improvements are proposed. In compliance with RR 4.8-5, construction traffic would be managed in compliance with the Federal Highway Administration's (FHWA's) *Manual on Uniform Traffic Control Devices* and applicable City requirements to limit roadway obstruction and the need for temporary detours. As such, roadways that provide access to the project site and the surrounding areas would not be impacted during project construction in such a way that would physically impair or impede emergency response or evacuation within the City of Lancaster. Potential impacts to emergency evacuation plans would be less than significant.

h) No Impact

The project site is surrounded by several public facilities and is not adjacent to wildlands or in or near areas designated as a Very High or High Fire Hazard Severity Zone. In addition, the proposed project would also not bring in permanent residents and employee visits would be

generally limited to 18 to 24 times per year. Therefore, the proposed project would not result in a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

4.8.3 MITIGATION MEASURES

MM 4.8-1 Prior to site clearing, painted structures or materials on the site (including any painted surfaces of construction debris and the former loading dock) shall be sampled for lead-based paint. In the event that lead-based paint is detected, all removal and disposal shall be conducted in accordance with applicable regulatory requirements, including use of contractors with appropriate certifications from the California Department of Health Services (DHS) and CalOSHA regulations to protect worker safety during potential exposure to lead under Title 8 of the *California Code of Regulations,* Section 1532.1 (Lead). The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

MM 4.8-2 If abnormal soil staining and/or odors are encountered during grading and excavation activities that could indicate the presence of petroleum hydrocarbons, heavy metals, or other contamination, construction activities shall be halted and an assessment of the soils shall be conducted prior to the continuation of grading or excavation activities. If the results of the soil testing show the presence of chemicals below regulatory levels, grading or excavation may proceed accordingly. If chemical levels are above regulatory standards, remediation and/or removal of contaminated soils in compliance with applicable local, State, and federal standards and requirements shall be conducted prior to project construction. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

MM 4.8-3 During operation, the County shall require the use of cleaning agents or additives that are biodegradable, non-toxic, and non-hazardous to plants, animals, and groundwater in all PV panel cleaning activities, and shall set forth this requirement in the contract for the maintenance activities on the site. The County shall confirm this requirement is included in the maintenance contract and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

MM 4.8-4 The solar array shall be designed to avoid areas at the site where the PV panels and other aboveground improvements could extend out into the approach zone for the helipad, which is defined by an imaginary surface extending out at a slope of 8:1 from the Final Approach and Takeoff Area (FATO) of the helipad, with a width of 500 feet and a length of 4,000 feet. The County shall confirm this requirement is incorporated into the project design by the Project Engineer/Consultant and compliance with this requirement shall be verified by the County Department of Public Works prior to approval of the site improvement and building plans.

Implementation of these mitigation measures would reduce impacts to less than significant levels.

4.9 HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

4.9.1 ENVIRONMENTAL SETTING

The project site is located at the southern end of the South Lahontan Basin where surface waters flow into three major surface water systems, including the Mono Lake, Owens River, and Mojave River watersheds, as well as a number of separate closed groundwater basins (Lahontan RWQCB 2005). The project site slopes slightly to the east, with storm water percolating into the ground or generally sheet-flowing in an easterly direction. The project site is underlain by the Antelope Valley Groundwater Basin (Basin), which serves as a major source of domestic water for the Valley. This basin underlies an extensive alluvial valley in the western Mojave Desert. The elevation of the valley floor ranges from 2,300 to 3,500 feet above sea level. The Basin is bounded on the northwest by the Garlock fault zone at the base of the Tehachapi Mountains and on the southwest by the San Andreas fault zone at the base of

the San Gabriel Mountains (DWR 2004). Depth to groundwater in the vicinity of the project site is estimated to be approximately 60 feet (Parsons 2010).

The site and surrounding areas are located within the service boundaries of the Los Angeles County Waterworks District No. 40. However, water supply to the adjacent County facilities comes from local groundwater, extracted through a well at the Mira Loma Detention Center.

Regulatory Requirements

RR 4.9-1 Prior to the issuance of a grading permit, the contractor shall file a PRD with the SWRCB in order to obtain coverage under NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities, Order No 2009-009-DWQ, NPDES No. CAS000002, (or the latest approved general permit). This permit is required for construction activities, including demolition, clearing, grading, and excavation, and other land disturbance activities, that result in the disturbance of one acre or more of total land area. The PRD consists of a Notice of Intent (NOI); Risk Assessment; Site Map; SWPPP; annual fee; and a signed certification statement. Pursuant to permit requirements, the contractor shall develop and incorporate BMPs for reducing or eliminating construction-related pollutants in site runoff. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

RR 4.9-2 The project shall be designed and constructed in compliance with the requirements of the Los Angeles County Department of Public Works' *Standard Urban Stormwater Mitigation Plan* (SUSMP) and *2009 Low Impact Development (LID) Standard Manual*. The County shall confirm this requirement is incorporated into the project design by the Project Engineer/Consultant and compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works prior to approval of the site improvement plans.

4.9.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a, f) Less than Significant With Mitigation

Short-term Construction. The terrain on the project site is generally flat, but is not adequate for the mounting of the solar panels or the concrete pads of the equipment buildings. Therefore, vegetation clearing and surface grading would be required. Implementation of the proposed project has the potential to generate water pollutants during the construction phase of the project. Soil disturbance from construction activities associated with site grading, solar array and mounting system installation, electrical conduit trenching or utility pole excavation and power inverter concrete pad installation could cause soil erosion and the eventual release of sediment into storm water runoff.

As previously discussed in Section 4.7, Geology and Soils, the NPDES permit program was established to control water pollution by regulating point sources that discharge pollutants into "Waters of the U.S.". Pursuant to Clean Water Act (CWA) Section 402(p), which requires regulations for permitting of certain storm water discharges, the SWRCB has issued the statewide NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities, Order No 2009-009-DWQ, NPDES No. CAS000002, adopted by the SWRCB on September 2, 2009, effective for all project sites on July 1, 2010.

Under this Construction General Permit, individual NPDES permits or Construction General Permit coverage must be obtained for discharges of storm water from construction sites with a disturbed area of one or more acres and are required to either obtain individual NPDES permits for storm water discharges or be covered by the Construction General Permit.

Coverage under the Construction General Permit is accomplished by completing and filing a Permit Registration Document (PRD) with the SWRCB prior to commencement of construction activities. The PRD consists of a Notice of Intent (NOI); Risk Assessment; Site Map; Storm Water Pollution Prevention Plan (SWPPP); annual fee; and a signed certification statement. The primary objective of the SWPPP is to identify, construct, implement, and maintain BMPs to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction. The Construction General Permit requires dischargers to assess the risk level of a project based on both sediment transport and receiving water risk, and each project will then be categorized into Risk Level 1, 2, or 3. For all Risk Level 3 and for some Risk Level 2 sites, the Construction General Permit requires effluent and receiving water monitoring for percent hydrogen (pH) and turbidity.

Compliance with RR 4.9-1, which requires obtaining coverage under, and compliance with, the Construction General Permit requirements, including implementation of appropriate BMPs and completion of a SWPPP, would ensure that temporary water quality impacts associated with construction activities would be less than significant.

Long-term Operation. Operation of the proposed project would not contribute to water quality impacts as the only activities occurring during operation would be the yearly visits for inspection, with additional visits of intermittent repairs. Maintenance of the solar array would be limited to washing the PV panels using a truck with a water tank and sprayer between 1 and 4 times per year, depending on the accumulation of dust on the surfaces. However, compliance with MM 4.8-3 in Section 4.8, Hazards and Hazardous Materials, requires the use of cleaning agents or additives that are biodegradable, non-toxic, and non-hazardous to plants, animals, and groundwater in all PV panel cleaning activities. Therefore, compliance with MM 4.8-3 would ensure the use of water on the PV panels would have a less than significant impact on surface water and groundwater quality.

b) Less than Significant Impact with Mitigation

The proposed project would include the creation of minimal amounts of impervious surfaces associated with the equipment buildings on 20-foot by 60-foot concrete pads used to house inverters and other equipment, and possibly the mounting structures for the solar array. Site access roadways would remain pervious. Rainfall would flow off of the solar panels into the pervious ground adjacent to the panels. Given the size of the project site and relatively small amount of impervious surface required for project implementation, it is anticipated that storm water runoff would still infiltrate the project site and have a negligible impact on groundwater recharge. The proposed project site is not a groundwater recharge facility, and the 620-acre block is surrounded by ample undeveloped pervious open space. Additionally, any runoff from the project site would be captured within the existing storm water swales that surround the 620-acre block, and would therefore not exit the County and State-owned property. As such, potential impacts to groundwater recharge would be less than significant, and no mitigation is required.

Project implementation would not require the use of on-site groundwater supplies. As discussed in Section 4.17, Utilities, water use by project construction and maintenance activities could lead to increased groundwater pumping. Implementation of MM 4.17-1 and MM 4.17-2 would reduce impacts on groundwater supplies to less than significant levels.

c–e) Less than Significant Impact

There are no natural streams, rivers or drainages within or near the project site. Constructed drainage swales were identified in the Phase I ESA prepared by Parsons in 2010; however, it is not known whether these are functioning features that currently contribute to site drainage, or whether they are remnant features that no longer contribute to site drainage. These swales run southeasterly through the site from the Mira Loma Detention Center to the CMYC, and another swale runs southeasterly and then northeasterly from the HDHS MACC to the CMYC. These swales would likely be eliminated through grading activities and solar array installation. Therefore, removal of these swales could impact on-site drainage patterns in such a way as to contribute to erosion or flooding off site.

As previously discussed, the soil beneath the solar arrays would remain largely pervious and maintain the ability to absorb storm water runoff. Currently, storm water runoff either sheet-flows from the project site into the open-faced drainage facilities that surround the 620-acre property, or sheet-flows into the on-site drainage swales first, and then into the drainage facilities that surround the 620-acre property. Exhibit 3-2 depicts the large, open-faced drainage facility between the State-owned property and the adjacent roadways (60th Street West, West Avenue I, and 50th Street West).

The project design, grading requirements, and configuration of the solar array have not been determined. Upon determination of the project design, pursuant to RR 4.9-2, the County of Los Angeles Department of Public Works shall ensure that appropriate hydrology and hydraulic analyses for *Standard Urban Stormwater Mitigation Plan* (SUSMP) and *2009 Low Impact Development (LID) Standard Manual* compliance have been satisfied. The incorporation of BMPs in accordance with SUSMP and LID may be required, such as implementation of infiltration trenches, vegetated buffers, or vegetated swales.

Therefore, construction of appropriate BMPs in compliance with SUSMP and LID would be implemented to ensure that site development would not result in erosion on site or off site. Compliance with RR 4.9-2 would ensure that project implementation would result in a less than significant impact related to erosion.

Site development could increase the amount of impervious cover within the project site, and therefore increase storm water runoff. However, no parking lots or habitable structures/buildings would be constructed on the site. Although the potential removal of broken asphalt on the project site could increase site permeability, the existing broken concrete is largely pulverized and in a relatively pervious state. Aside from the foundations for the approximate 20-foot by 60-foot equipment building pads and the potential for minor foundation areas associated with the pole-mounting structures (if included in the project design), the site would remain unpaved and largely pervious to storm water runoff. Additionally, compliance with SUSMP and LID standards, as required by RR 4.9-2, would ensure that storm water runoff is retained and infiltrated on site per County standards to ensure that no on-site or off-site flooding would occur.

Additionally, any storm water runoff that exits the project site would be ultimately deposited within the existing storm drain facilities that surround the project site, thereby ensuring that storm water runoff would infiltrate soils within the larger 620-acre block and that project development would not negatively impact downstream storm drain infrastructure. Compliance with RR 4.9-2 would ensure that project implementation would result in a less than significant impact related to flooding and storm drain capacity.

g, h) No Impact

The project site is not located within the 100-year floodplain. However, the southeastern section is located within the 500-year floodplain, with the rest of the site located outside the 500-year floodplain (FEMA 2008). No housing units would be developed on the site. Thus, the proposed solar array would not place housing within the 100-year floodplain. Since the site is located outside the 100-year floodplain, the proposed project would not place structures that may redirect flood flows within the 100-year floodplain. No impact related to flooding would occur, and no mitigation is required.

i) Less than Significant Impact

The northern section of the site is located within the inundation area of the Fairmont Reservoir (LACDRP 1990). The proposed solar array would not expose people to potential injury or death since the facility would not be manned, and maintenance personnel would only be on site an estimated 18 to 24 times per year. Impacts would be less than significant, and no mitigation is required.

j) No Impact

The site is located more than 30 miles from the ocean and is outside the tsunami inundation areas along the coast (DOC 2007). Additionally, there are no hillside areas within 4 miles of the project site that would generate mudflow at the site (USGS 1974). Impacts related to dam inundation would be less than significant. No impact related to seiche, tsunami, or mudflow would occur.

4.9.3 MITIGATION MEASURES

With implementation of the RRs identified above, and MM 4.8-3 presented in Section 4.8, Hazards and Hazardous Materials and MMs 4.17-1 and 4.17-2 in Section 4.17, Utilities and Services Systems, impacts on hydrology and water quality would be less than significant and no additional mitigation is required.

4.10 LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

4.10.1 ENVIRONMENTAL SETTING

The project site is undeveloped and is surrounded by public facilities and vacant land. As shown on Exhibit 3-3, adjacent land uses include the Mira Loma Detention Center to the northwest, the HDHS MACC to the west, the CSP-LAC to the south, the CMYC and vacant land to the east, the Lancaster Animal Shelter to the northeast, and West Avenue I and vacant land to the north. Relatively new residential tracts are found south of West Avenue J, a multi-family development and scattered large-lot residential uses are found west of 60th Street West, and scattered large lot residential uses are found north of West Avenue I and east of 50th Street West.

The project site and adjacent State and County facilities are designated as "Public Use" in the Lancaster Land Use Map, and adjacent areas are designated as Light Industrial to the north, east and west, except for Urban Residential areas to the west (developed with multi-family uses) and north of Lancaster Boulevard. The area south of West Avenue J is also designated as Urban Residential. Areas farther to the north and west are designated as Non-Urban Residential (Lancaster 2009b). Exhibit 4-12 shows the *City of Lancaster General Plan* land use designations for the site and surrounding areas.

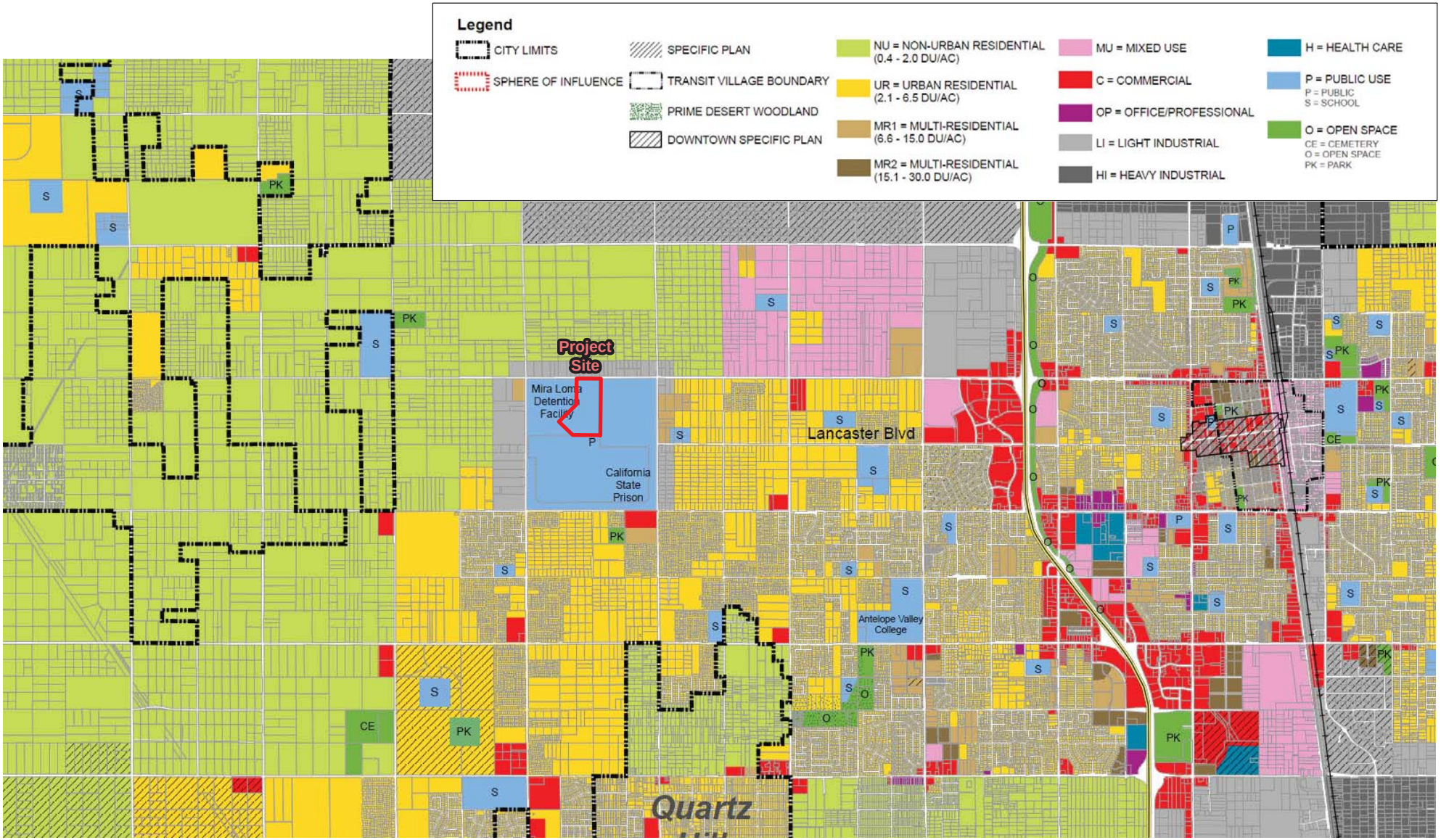
The project site is zoned "Public" in the Lancaster Zoning Map, along with surrounding State and County facilities. Areas south and southwest of the CSP-LAC are zoned Single-Family Residential (R-7,000) and land west of 60th Street West is zoned Moderate Density Residential (7.1 to 15 dwelling units per acre). Lands north, northeast, and northwest of the site are zoned Rural Residential (1 unit per 2.5 acres), and land east of the site is zoned Moderate Density Residential (Lancaster 1998). Exhibit 4-13 shows the City of Lancaster Zoning of the site and surrounding areas.

4.10.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) No Impact

The project site is not located within a residential area, nor surrounded by residential uses that make up an established community. Therefore, the project would not divide an established neighborhood, and no mitigation is required.



City of Lancaster 2009

Lancaster General Plan Land Use

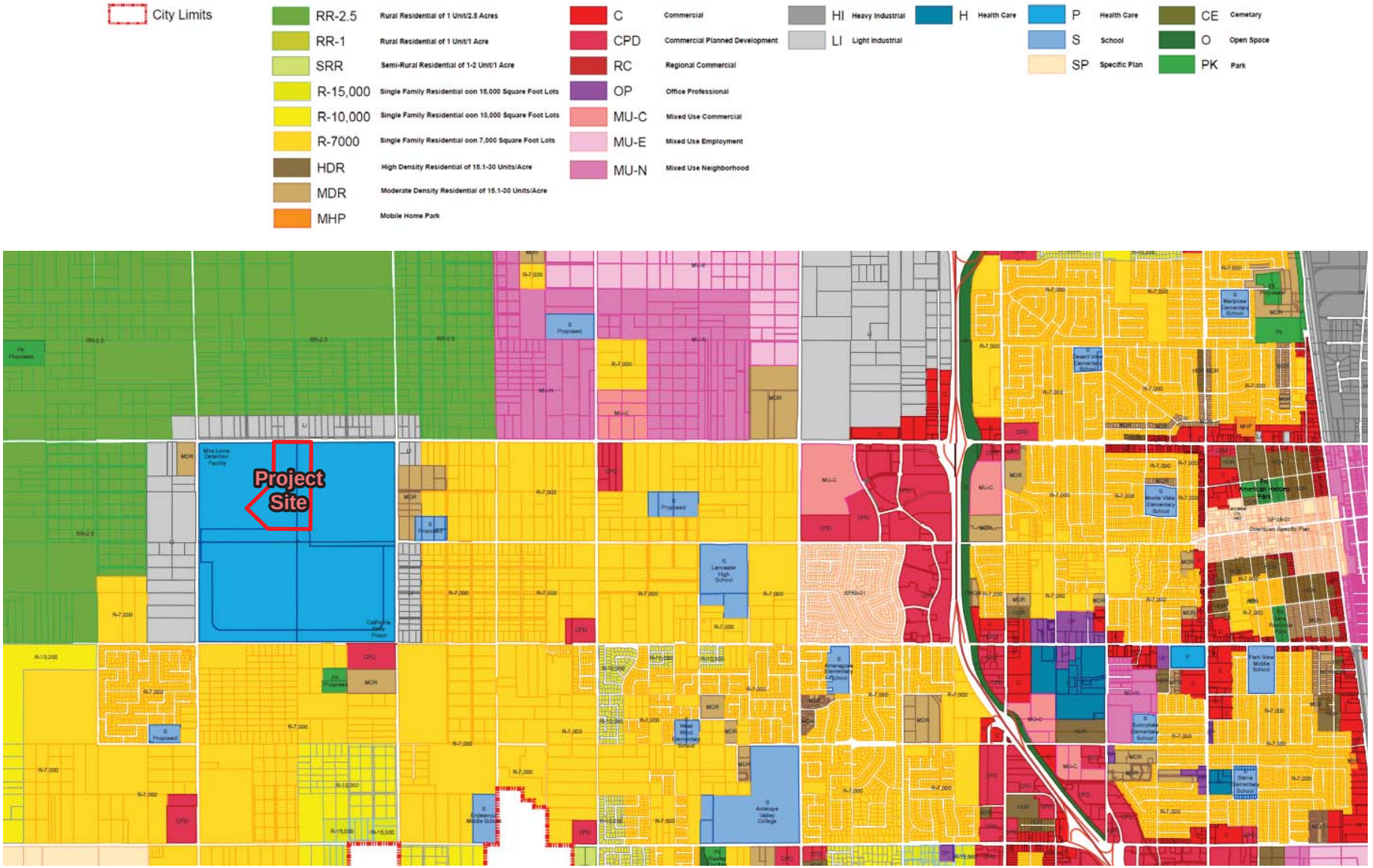
Exhibit 4-12

County of Los Angeles Solar Energy Project

BonTerra CONSULTING

(Rev 05/19/10 CJS) Projects/CoLACAO/J006/Graphics/MND/Ex4-12_GP_land_use.pdf

D:\Projects\CoLACAO\J006\Graphics\Ex_GP_land_use.ai



City of Lancaster, 2010

Lancaster Zoning

Exhibit 4-13

County of Los Angeles Solar Energy Project

N
W E
S

BonTerra CONSULTING

D:\Projects\CoLACAO\J006\Graphics\Ex_draft_zoning.ai

b) No Impact

The land use designation and zoning for the site is "Public", and the proposed Solar Energy Project would serve the adjacent County facilities and would not change the ownership or public use of the land. The proposed project would not require a General Plan amendment or zone change. The proposed project would also not conflict with regional plans, policies, or regulations related to land use, including the Regional Comprehensive Plan (RCP), the Regional Housing Needs Assessment (RHNA), and the Regional Transportation Plan (RTP) by the Southern California Association of Governments (SCAG) since the proposed project would not require a land use change and would not generate additional population, housing, or employment for the area. The project is consistent with the energy goals of the RCP relating to decreasing the consumption of fossil fuels and increasing renewable energy supplies.

Under the Airport Land Use Plan (ALUP) for Fox Airfield, the northern and central sections of the project site are located within Zone E (Other Airport Environs) of the Compatibility Zones for this airport. Zone E has no restrictions on density and land use and compliance with RR 4.8-4 would prevent the creation of flight hazards to aircraft operations at Fox Airfield. This is discussed in Section 4.8, Hazards and Hazardous Materials, above.

c) No Impact

No HCP or Natural Community Conservation Plan (NCCP) has been adopted for the project site or the surrounding area. The City of Lancaster participated in the development of the West Mojave Plan, an HCP that aims to conserve and protect habitat for the desert tortoise, the Mohave ground squirrel, and over 100 other special status species throughout a 9.3 million-acre planning area (USDOI and BLM 2006). The site is located outside the proposed conservation areas for the West Mojave Plan. The City did not adopt the West Mojave Plan but subsequently joined with other cities in the area to develop a habitat conservation plan for 13 species. However, there is currently no schedule for adoption of this HCP. No impact or conflict with an HCP would occur due to the project.

4.10.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to land use; therefore, no mitigation is required.

4.11 MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

4.11.1 ENVIRONMENTAL SETTING

Mineral resources are naturally occurring chemicals, elements, or compounds formed by inorganic processes or organic substances. These resources include bituminous rock, gold, sand, gravel, clay, crushed stone, limestone, diatomite, salt, borate, potash, geothermal, petroleum, and natural gas resources. Construction aggregate refers to sand and gravel (natural aggregates) and crushed stone (rock) that are used as Portland-cement-concrete aggregate, asphaltic-concrete aggregate, road base, railroad ballast, rip-rap, and fill and for the production of other construction materials.

The *City of Lancaster General Plan* depicts the project site as being partially within Mineral Resource Zone 3 (MRZ-3), which is defined as containing potential but presently unproven resources. According to the General Plan, it is not considered likely that the City has large valuable mineral and aggregate deposits, and the project site is not designated as a potential mineral resource recovery site (Lancaster 2009b). Review of maps prepared by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources shows that the project site does not contain oil, gas, or geothermal resources (DOGGR 2001), and there are no oil wells or mining activities in or near the site (DOGGR 2009).

The City of Lancaster is located within the Palmdale Production-Consumption Region, where 5 to 10 million tons of aggregate resources were produced in 2005. This compares to the State's total production of 235.3 million tons of sand, gravel, and crushed stone for the same year (CGS 2006). Mineral resources in the Palmdale Production-Consumption region are largely located along Big Rock Wash and Little Rock Wash at the eastern section of the Antelope Valley (DOC 1987).

4.11.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a, b) No Impact

The *City of Lancaster General Plan* does not designate the site as an area containing mineral resources, and the project site and surrounding areas are not designated as a potential mineral resource recovery site (Lancaster 2009b). The project site has never been used for mineral recovery or mining activities, and no designated, regionally significant mineral resources are on or near the project site (DOC 1987). Thus, the proposed solar array would not result in the loss of availability of locally important mineral resources. No impacts would occur.

4.11.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to mineral resources; therefore, no mitigation is required.

4.12 NOISE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.12.1 ENVIRONMENTAL SETTING

The predominant sources of noise within the project area are traffic on West Avenue I and noise from activities on adjacent County facilities. Based on the surrounding land uses and the existing daily traffic volumes of less than 8,000 vehicles on West Avenue I (Lancaster 2009a), it is anticipated that the ambient noise levels in the project site are typical of low density and rural areas, ranging from 45 to 60 A-weighted decibels (dBA).

The site is located approximately two miles south of the General Fox Airfield, which has a 7,200-foot-long runway, oriented east-northeast/west-southwest, along with aircraft hangars, apron areas, and other supporting uses southeast of the runway. As previously shown on Exhibit 4-11, the project site is partially within Zone E of the Compatibility Zones for this airport. Zone E is identified as a Low Noise Impact area since it is beyond the 55 Community Noise Equivalent Level (CNEL) noise contour although occasional aircraft overflights could be intrusive to outdoor activities in this zone. Existing (2003) and projected (2023) noise contours for the airport do not have the 55 CNEL noise contour on or near the site (see Exhibits 4-14 and 4-15).

Noise-sensitive receptors are generally considered to be humans who are engaged in activities or who are utilizing land uses that may be subject to the stress of significant interference from noise. Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals and places where quiet is an essential element of the intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure to excessive, disturbing, or offensive interior or exterior noise levels. Hospitals, schools, places of worship, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

Existing noise and vibration-sensitive receptors near the project site are the CSP-LAC detention buildings approximately 800 feet south of the project site boundary, the HDHS MACC buildings approximately 300 feet west of the project site boundary, the Mira Loma Detention Center buildings approximately 30 feet west of the project site boundary, and single-family homes approximately 1,300 feet to the north of the project site boundary.

Regulatory Requirements

RR 4.12-1 Non-emergency construction activities will be prohibited between the hours of 7:00 PM and 7:00 AM on weekdays and Saturdays, and at any time on Sunday or a federal holiday, in compliance with the *Los Angeles County Code*. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

4.12.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a, d) Less Than Significant Impact with Mitigation

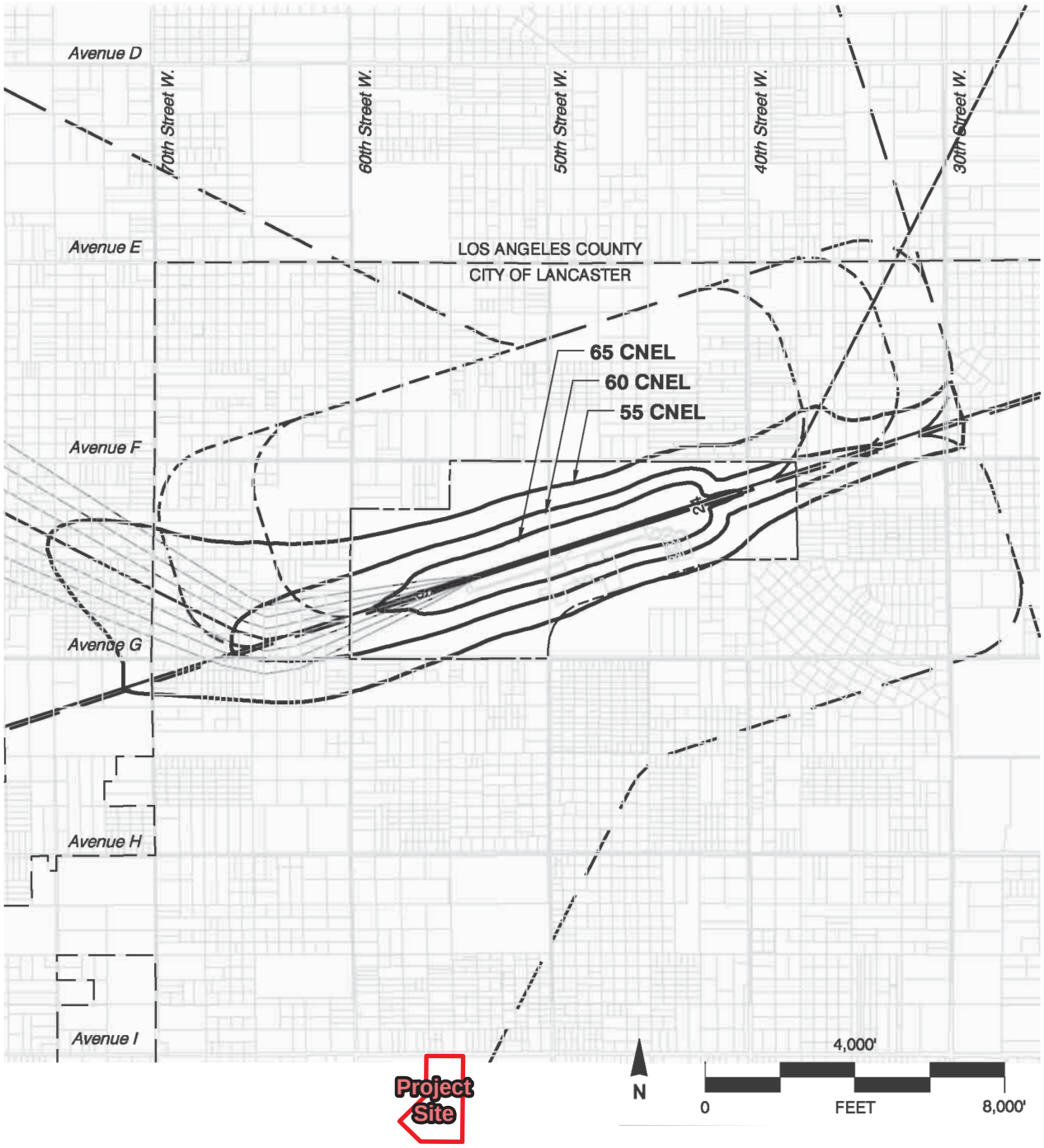
Construction (Short-Term) Noise. Construction activities are anticipated to commence in late 2011, with the first phase of the facility, 2 MW of solar array, in operation by mid-2012. Construction on the second 2 MW would start after completion of the first phase; and would take another 10 months to complete. Site preparation would include vegetation clearing, site grading, solar array and mounting system installation, electrical conduit trenching or utility pole excavation, and power inverter concrete pad installation. Grading and demolition activities were assumed to occur over the course of two months each, with grading starting one month after the start of demolition and continuing for one month after completion of demolition.

No parking lots or habitable structures would be constructed on the site. Construction activities associated with the proposed project would not require blasting or pile driving. Currently, there are no designated truck routes within the City of Lancaster; however, the County is planning to use West Avenue I to SR-14 as the truck route to and from the site, since this is the most direct route between the site and the freeway. This route would not be adjacent to any schools.

Construction noise is related primarily to the use of heavy equipment. Assumed equipment during construction activities includes a grader, a dozer, a backhoe, loaders, and water trucks. Noise levels generated by heavy equipment can range from approximately 68 dBA to an excess of 100 dBA when measured at 50 feet. Typical duty cycles and noise levels generated by representative pieces of construction equipment operating individually are listed in Table 4-12. During construction, the highest noise levels occur with the operation of heavy equipment such as dozers, excavators, and water trucks. An excavator can generate noise levels of 85 dBA L_{max}[2] at 50 feet. However, these noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 85 dBA measured at 50 feet from the source to the receptor would be reduced to 79 dBA at 100 feet, and 73 dBA at 200 feet.

Because of the effects of noise attenuation, the distance from the noise source to a receptor is a primary consideration in determining the actual noise level experienced at the receptor. For the purpose of this analysis, when heavy equipment such as a dozer or an excavator is operating within the project site nearest to the Mira Loma Detention Center and Off-site Area at the detention center, noise levels can reach 85 dBA L_{max} at a distance of 50 feet for the noisiest

[2] L_{max} means the maximum A-frequency-weighted sound level (decibels) during a stated time period.



Legend	Primary	Sub-Tracks
Departures	———	
Arrivals	— —	
Touch & Go	— — — —	

Aircraft Operations	
Total Annual	83,000
Average Day*	227

* Fire Attack - 4 month season

Source: Mead & Hunt (September 2003)

General William J. Fox Airfield
Land Use Compatibility Plan, 2004

Noise Contour

Exhibit 4-14

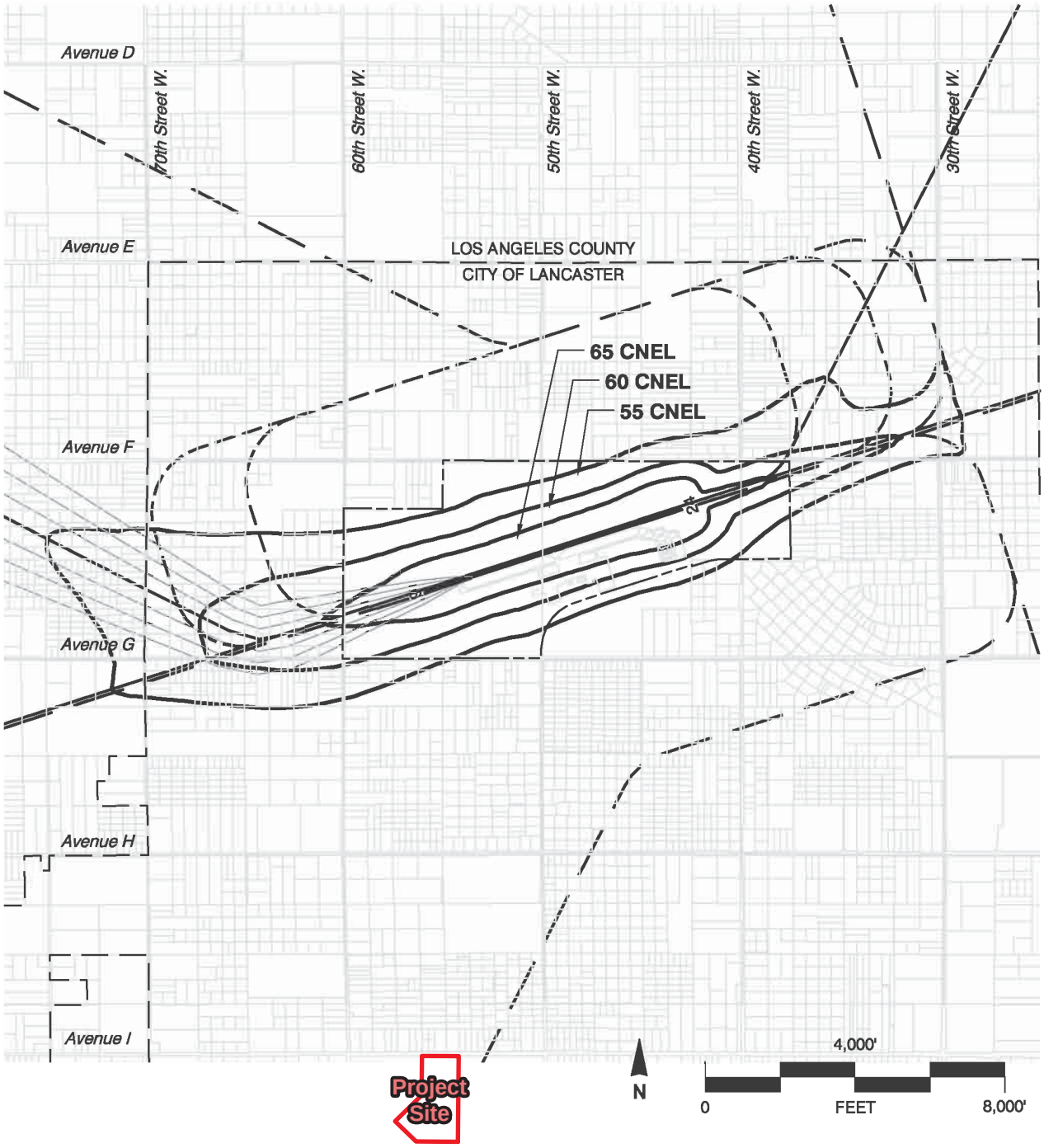
County of Los Angeles Solar Energy Project



BonTerra CONSULTING

(Rev 05/2010 CJS) Projects\CoLACAO\J006\Graphics\MND\Ex4-14_airport_noise.pdf

D:\Projects\CoLACAO\J006\Graphics\MND\Ex_airport_noise.ai



Legend	Primary	Sub-Tracks
Departures	———	
Arrivals	— —	
Touch & Go	— — — —	

Aircraft Operations	
Total Annual	198,000
Average Day*	542

* Fire Attack - 4 month season

Source: Mead & Hunt (September 2003)

General William J. Fox Airfield
Land Use Compatibility Plan 2004

Future Noise Contour

Exhibit 4-15

County of Los Angeles Solar Energy Project

N
W E
S

BonTerra CONSULTING

(Rev 05/2010 CJS) Projects\CoLACAO\J006\Graphics\MND\Ex4-15_future_airport_noise.pdf

D:\Projects\CoLACAO\J006\Graphics\MND\Ex_future_airport_noise.ai

equipment likely to be used at the site (i.e., a dozer, excavator, scraper, or grader) or 89 dBA at 30 feet (the distance of the nearest structure at the Mira Loma Detention Center to the site).

While the proposed project would maintain a 100-foot setback from the Mira Loma Detention Center, as required under MM 4.14-1, laying of conduit would occur within 100 feet of the site boundaries near the sentry at the front gate of the Mira Loma Detention Center. Thus, construction noise levels of 85 dBA may be exceeded at times when construction equipment is operating nearer than 50 feet from noise receptors. To reduce this impact, MM 4.12-1 requires the provision of a temporary noise barrier between the disturbance area (where grading or construction activities are planned) and the nearest noise receptor to break the line of sight between the noise source and noise receptor, and thus, decrease noise levels by 5 dBA. This mitigation will reduce noise levels to 85 dBA or below, and would meet the County standard for construction mobile equipment. Impacts would be less than significant after mitigation.

When heavy equipment is operating within the project site boundary nearest to the HDHS MACC facility at approximately 300 feet, noise levels can reach 69 dBA L_{max} at the HDHS MACC. At the nearest home, 900 feet away, noise levels can reach 60 dBA L_{max}. Noise levels at these receptors would not exceed County standards.

The City of Lancaster has adopted exterior noise standards of 65 dBA CNEL for residential areas but has no exterior noise standards for hospitals and convalescent facilities or detention facilities (Lancaster 2009a). Thus, construction activities would not exceed the City's noise standards.

Also, the average noise levels at the nearest noise sensitive receptors would be much lower because mobile construction equipment would move around the site with different loads and power requirements. When construction equipment is operating at the center of the site, the noise levels at the nearest noise-sensitive receptors approximately 750 feet away (HDHS MACC and Mira Loma Detention Center) would reach 61 dBA L_{max}. Construction activities would be heard above the existing noise levels and would be expected to create a disturbance at the HDHS MACC, the Mira Loma Detention Center, the CSP-LAC, and the non-sensitive receptors in proximity to the project site. However, the noise from construction activities would not exceed City or County noise standards and would occur only for short- periods of time. Thus, construction noise impacts would be less than significant.

Policy 4.3.2 (d) of the City of Lancaster's Noise Element states that non-emergency construction activities must be limited to daylight hours between sunrise and 8:00 PM. Section 12.08.440 of the *Los Angeles County Code* prohibits construction noise between the hours of 7:00 PM and 7:00 AM on weekdays, and at any time on Sunday or a federal holiday if it creates a disturbance across a residential or commercial property line. The County standard is more restrictive and is set forth in RR 4.12-1. The County also sets maximum noise levels for mobile construction equipment, as summarized in Table 4-13.

TABLE 4-12
TYPICAL MAXIMUM CONSTRUCTION NOISE LEVELS

Equipment	Noise Level (dBA) at 50 ft	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 KVA or less)	70	50%
Generator (more than 25 KVA)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
Insitu Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Pile Driver, Impact (diesel or pneumatic)	95	20%
Pile Driver, Vibratory	95	20%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%

KVA: kilovolt amps
Source: Thalheimer 2000

TABLE 4-13
COUNTY OF LOS ANGELES CONSTRUCTION EQUIPMENT NOISE LIMITS

Time Interval	Single-Family Residential (dBA)	Multi-Family Residential (dBA)	Semi-Residential or Commercial (dBA)
Mobile Equipment			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75	80	85
Daily, 8:00 PM to 7:00 AM, and all day Sunday and legal holidays	60	64	70
Stationary Equipment			
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60	65	70
Daily, 8:00 PM to 7:00 AM, and all day Sunday and legal holidays	50	55	60
dBA: A-weighted decibels Source: *County of Los Angeles Code* §12.08			

With MM 4.12-1, construction equipment would not exceed the County of Los Angeles' 85-dBA daytime noise limits at the HDHS MACC and Mira Loma Detention Center or the 75-dBA limit at the nearest single-family residences. There would be no construction activities during nighttime hours.

The Los Angeles County noise ordinance limits noise from stationary sources to 70 dBA L_{max} at Semi-Residential or Commercial Facilities during the daytime hours, except Sundays and legal holidays. To ensure compliance with these noise limits, equipment such as compressors or generators should be located no closer than 200 feet to the Mira Loma Detention Center. Staging areas, where material loading and unloading and equipment maintenance could occur, should be located no closer than 400 feet to the Mira Loma Detention Center or the HDHS MACC. To comply with the County noise limits, enforcement of these distances is included in MM 4.12-2.

Approximately 1,076 truck trips would be required for asphalt and debris removal during each phase of construction. As previously discussed in Section 4.3, it was assumed that 32 round-trip truck trips could occur in a single day to dispose of demolition debris with an additional 5 trips per day to import gravel for internal roads. The expected 74 one-way trips per day in an 8-hour day would average 1 truck trip every 6 to 7 minutes. Truck trip volumes would be very small when compared to the daily volumes of 5,500 or more on West Avenue I and 60th Street W; see Section 4.16. Construction-related truck traffic would be sporadic and would not cause significant noise increases to surrounding uses.

The operation of heavy construction equipment would cause temporary and short-term increases in ambient noise levels in the vicinity of the project site and cease when construction is over. Construction activities would be short-term and would be conducted in compliance with the respective construction noise standards of the City of Lancaster and the County of Los Angeles, therefore, construction noise impacts would be less than significant. While construction-related noise would not be considered significant, MM 4.12-1 and MM 4.12-2, identified below, would further reduce construction noise effects on sensitive receptors.

c) Less Than Significant Impact

Operational (Long-term) Noise. The operation of the Solar Energy Project would require infrequent maintenance and repair activities, and occasional washing of the PV panels using a

truck with a water tank and sprayer. If adjustable tilt and manual tracking systems are used, manual adjustments would need to be made four times a year to change the tilt of the PV panels. Operation of the Solar Energy Project would not result in any noticeable noise. As these maintenance activities would be sporadic and would not create substantial increases to ambient noise, operational noise impacts would be less than significant.

b) Less Than Significant Impact

Groundborne vibration generated by construction projects is usually highest during pile driving and rock blasting. Neither of these activities is anticipated for the proposed project; however, construction activities would involve the use of large construction equipment. Vibration from this equipment is rarely perceived at distances greater than 25 feet. Given the distance between the project site and nearest sensitive uses at approximately 300 feet away, vibration impacts would be less than significant. No mitigation measures are required.

e, f) No Impact

The site is located approximately two miles south of the General Fox Airfield, outside the 55-dBA CNEL existing and future airport noise contours (ALUC 2004). The proposed project would not include the development of noise-sensitive uses. While aircraft overflights would be heard, people working in the project area would not be exposed to excessive aircraft noise levels. No impacts would occur.

4.12.3 MITIGATION MEASURES

MM 4.12-1 Prior to any grading or construction activities within 50 feet of the Mira Loma Detention Center, a 10-foot-high temporary noise barrier shall be constructed between the disturbance area and the nearest noise receiver at the Mira Loma Detention Center. The noise barrier shall be constructed of material with a minimum weight of four pounds per square foot with no gaps or perforations. The noise barrier may be constructed of, but are not limited to, $^{5}/_{8}$-inch-thick plywood or $^{5}/_{8}$-inch-oriented strand board. The noise barrier shall remain in place until the end of grading or construction activities.

MM 4.12-2 The County of Los Angeles Public Works Director shall include the following requirements into the contractor specifications:

1. All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and periodically inspected to ensure compliance.

2. Stationary equipment, such as generators and air compressors, shall be located at least 200 feet from the Mira Loma Detention Center.

3. Equipment maintenance and staging areas shall be located at least 400 feet from the HDHS MACC and the Mira Loma Detention Center.

4. Stockpiling and/or vehicle staging areas shall be located at least 400 feet from the HDHS MACC and the Mira Loma Detention Center.

The contractor's compliance with these requirements shall be performed to the satisfaction of the County Department of Public Works.

Implementation of these mitigation measures would reduce impacts to less than significant levels.

4.13 POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant With Mitigation	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 the extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.13.1 ENVIRONMENTAL SETTING

The City of Lancaster had a January 2010 population of 145,875 persons and a housing stock consisting of 49,659 dwelling units (DOF 2010). The California Employment Development Department estimates the City's March 2010 labor force at 56,600 persons, of which 9,700 persons (17.1 percent) are unemployed (EDD 2010). February 2011 employment figures show the same labor force and unemployment rates (EDD 2011). The project site is vacant and there are no residents, housing units, or employees at the site.

4.13.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) No Impact

The proposed project would not involve housing or business development on the site and would not lead to the introduction of residents into the area. No change in the City of Lancaster's population or housing would occur with project implementation. Additionally, the project would not have on-site employees. Rather, a subcontractor would provide maintenance services to the solar facilities, estimated to be 1 to 4 times a year for PV panel washing and 4 times a year for PV panel tilt adjustments. In addition, once a year inspections and intermittent repairs would be provided by the solar array provider/manufacturer. These intermittent site visits would not create any permanent or substantial demand for housing, goods, or services in the area and would not induce substantial population growth in Lancaster or surrounding communities. Additionally, the project would not indirectly stimulate population growth by creating new public infrastructure, such as new roads or utility extensions. There would be no impacts related to direct or indirect population growth from the proposed project.

b, c) No Impact

The project site is vacant; therefore, the proposed project would not displace existing housing units, households, businesses, or employees. No impacts would occur.

4.13.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to population or housing; therefore, no mitigation is required.

4.14 PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

4.14.1 ENVIRONMENTAL SETTING

Police protection services at the project site and in the City of Lancaster are provided by the Los Angeles County Sheriff's Department, with a station at 501 W. Lancaster Boulevard. In 2009, this station was staffed by 205 sworn officers and 61 civilian personnel (Lancaster 2009a). The adjacent Mira Loma Detention Center is operated by the County Sheriff's Department, which provides patrol services on the project site.

Fire protection services in the City are provided by the Los Angeles County Fire Department through 8 fire stations. The nearest fire station to the site is Fire Station 130, which is located at 44558 40th Street West, approximately 2 miles east of the site. This station is staffed by a three-person engine company; three-person Urban Search and Rescue team; five-person Hazardous Materials Task Force; and one Hazardous Materials Unit. It is equipped with one engine and one Urban Search and Rescue unit (Lancaster 2009a).

The project site is located within the service boundaries of the Westside Union School District (Lancaster 2009a). The nearest school is Sundown Elementary located at 6151 W. Avenue J-8, approximately 1.3 miles to the south of the project site. The project site is currently undeveloped and does not generate a demand for schools, libraries or parks.

Regulatory Requirements

RR 4.14-1 The proposed project shall comply with the *Los Angeles County Code's* Title 32, Fire Code, and regulations of the Los Angeles County Fire Department, which include standards for building construction, emergency access, fire flow, water main, and fire hydrants. The County shall confirm this requirement is incorporated into the project design by the Project Engineer/Consultant and compliance with this requirement shall be performed to the satisfaction of the County Fire Department prior to approval of the site improvement and building plans.

4.14.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a.i) Less than Significant Impact

The proposed project would not involve the creation of new habitable structures, or new population growth that could generate new demand for fire protection services. However, new utility infrastructure would be created that has the potential to require fire protection services in the highly unlikely event that the structures were to catch fire. The nearest fire station is located approximately 2 miles east of the project site, and no new or physically altered fire protection facilities would be required to provide service to the project site, and no environmental impacts would result.

As stated in RR 4.14-1, the project would be designed and constructed in compliance with Title 32, Fire Code, of the *Los Angeles County Code*. Under Title 32, new construction, rehabilitation, alteration or expansion are required to comply with requirements for construction materials and methods, fire protection systems, emergency access, fire flow, and other fire safety issues. The Code addresses construction in fire hazard areas; the storage, use, handling, and transportation of hazardous materials; and the use of equipment and activities involving fire.

To ensure that no fire hazards are created by the project, building plans would be subject to review and approval by the County Fire Department, as well as annual inspections of the buildings and premises for compliance and to correct conditions which may cause fire or contribute to its spread. Compliance with RR 4.14-1 would ensure that project impacts would be less than significant.

a.ii) Less than Significant Impact

The proposed project would not generate additional demand for police protection services associated with the proposed improvements on the site. The Los Angeles County Sheriff's Department recommends an officer-to-population ratio of 1 officer per 1,000 residents and the City of Lancaster had a ratio of one officer per 931 residents in 2009 (Lancaster 2009a). The proposed project would not lead to a resident population on the site and thus, would not change the officer-to-population ratio in Lancaster. No new or physically altered police protection facilities would be required, and no environmental impacts would result.

The proposed solar facilities would be fenced in to prevent unauthorized access or trespassing. Perimeter fence lighting would be provided for nighttime security of the solar facility. In addition, security lighting associated with the Mira Loma Detention Center, CMYC, and CSP-LAC facilities surrounds the project site. Patrol services around the solar facilities are expected to continue to be provided by the County Sheriff's Department personnel. Although impacts would be less than significant, MM 4.14-1 requires that a 100-foot setback from the Mira Loma Detention Center be maintained, as recommended by the County Sheriff's Department to ensure that no obstructions or conflicts with the security services at the Mira Loma Detention Center occur.

a.iii–v) No Impact

The proposed solar array would not include the development of housing units nor introduce residents into the site. Thus, no demand for schools, parks, libraries, or other public facilities would be generated by the project. No impact would occur.

4.14.3 MITIGATION MEASURES

MM 4.14-1 Although no significant impact would occur, a setback of at least 100 feet from the fence line of the Mira Loma Detention Center shall be maintained where no permanent structures shall be located. Further, no parking or storage shall be made within this 100-foot setback area during construction. The County shall require the Project Engineer/Consultant and contractor to comply with this requirement through its incorporation into the project design and the contractor specifications. Project design and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

4.15 RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would/does the project:				
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 recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.15.1 ENVIRONMENTAL SETTING

There are various State, County, and City parks and recreational facilities in the project area, with the nearest park (Duntley Park) located approximately two miles southeast of the project site (Lancaster 2009a). The project site and surrounding areas are not used for recreational purposes and does not create a demand for recreational facilities in its undeveloped state.

4.15.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a, b) No Impact.

The proposed solar array would not directly or indirectly result in housing development or population growth on the site or in the project area. With no new households or residents, the project would not increase the use of local parks nor create a demand for local or regional recreational facilities. Also, no recreational facilities are proposed as part of the project. No impact would occur.

4.15.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to recreation; therefore, no mitigation is required.

4.16 TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system. Including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreased the performance or safety of such facilities?	☐	☐	☐	☒

4.16.1 ENVIRONMENTAL SETTING

Regional access to the site is provided by the Antelope Valley Freeway (State Route [SR] 14), which runs in a north-south direction, approximately three miles east of the project site. This freeway carried approximately 51,000 vehicles per day in 2008, with 4,350 vehicles during the peak hour (Caltrans 2009). This freeway is part of the Highway and Roadway System in the County's Congestion Management Program (CMP) (MTA 2010).

Vehicular access to the site is provided by West Avenue I, between 60th Street West and 50th Street West. West Avenue I is a two-lane roadway with soft shoulders. Traffic count data from 2005 indicated approximately 5,900 vehicles use this roadway each day. With capacity for 16,000 vehicles, it had a volume-to-capacity ratio of 0.369 in 2005, which translates to a Level of Service (LOS) A. LOS A is defined as free-flow traffic, where vehicles are almost unimpeded in their ability to maneuver within the traffic stream (Lancaster 2009a). There have been no notable changes in traffic conditions since 2005; therefore, it is expected that the street continues to operate at LOS A.

West of the site is 60th Street West, which has 2 to 3 lanes between Avenue I and Avenue J, and average traffic volumes of 5,500 vehicles per day. This roadway had a volume-to-capacity ratio of 0.229 (2005) (LOS A). East of the site is 50th Street West, which has 3 lanes between

Avenue I and Avenue J, and average traffic volumes of 2,400 vehicles per day. This roadway had a volume-to-capacity ratio of 0.100 (2005) and operated at LOS A (Lancaster 2009a).

The project site is undeveloped and does not generate vehicle trips on the freeway or area roadways. There are no existing or proposed bicycle routes or trails on or near the project site (Lancaster 2009a). The Antelope Valley Transit Authority (AVTA) provides bus transit services in the area, with the Quartz Hill Route (Route 7) passing West Avenue I and 60th Street West north and west of the site, respectively. This route makes 13 roundtrips with 60-minute headways on weekdays and 11 trips with 60-minute headways on weekends between the Lancaster Senior Center and the Palmdale Transfer Center (AVTA 2010).

4.16.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a, b) Less Than Significant Impact

The proposed solar array would generate new vehicle trips during construction and operation. As previously discussed, if it is determined that broken asphalt in the vicinity of the equipment buildings, roadways, trenching, or pole-mounting structures (if included in the project design) must be removed, the asphalt would need to be hauled off-site and disposed of. It is assumed that up to 20 acres of asphalt and associated soil could be removed for project implementation. With the assumption of an average depth of 8 inches of material removed, approximately 21,512 cubic yards (cy) of debris would be disposed off-site. If 20-cy trucks are used to remove and dispose of the debris, a total of approximately 1,076 truck trips would be required.

Grading and demolition activities were assumed to occur over the course of two months for each phase, with grading starting one month after the start of demolition and continuing for one month after completion of demolition. It was assumed that a maximum grading disturbance of five acres would occur in one day, concurrent with demolition. For purposes of estimating maximum reasonable worst case for truck traffic, it was assumed that 32 round-trip truck trips could occur in a single day to dispose of demolition debris with an additional 5 trips per day to import gravel for internal roads. The demolition/grading phase of construction activity is considered to be the most intense; the construction phase would not require as many daily truck trips. In total, grading/demolition and construction activity on the project site is anticipated to require approximately 10 months for the first 2 MW and another 10 months for the second 2 MW.

This limited amount of construction activity for the grading and off-hauling of asphalt debris and vehicle trips by the construction crew and for delivery of building materials (i.e., to be used for PV panels, mounting structures and poles/foundations, the equipment buildings, conduit trenching, utility poles, the gravel road, fencing, and lighting) are not expected to cause traffic congestion on area roadways and intersections. There is capacity at local streets near the site, which are all operating at LOS A, to handle traffic volume increases due to construction traffic. This impact would also be temporary and short-term.

Currently, there are no truck routes designated in the City of Lancaster, or restrictions on hours for truck activities. However, construction activities for the project would be confined to those set forth in RR 4.12-1, which states that non-emergency construction activities will be prohibited between the hours of 7:00 PM and 7:00 AM on weekdays and Saturdays, and at any time on Sunday or a federal holiday, in compliance with the *Los Angeles County Code.*

Long-term operation of the solar array would generate only 36 to 48 vehicle trips (18 to 24 site visits) per year, which translates to no more than 2 vehicle trips every 2 weeks. The nearest Congestion Management Program (CMP)-designated highway to the site is SR-14 (MTA 2010). This long-term trip generation would not affect roadway or intersection operations in the project area, nor would it affect pedestrian and bicycle paths or bus transit services in Lancaster. Additionally, these trips are not expected to have any measurable impact on SR-14, which carried 51,000 vehicles per day between Avenue I and Avenue J in 2009 (Caltrans 2010). Impacts would be less than significant.

c) No Impact

The project site is not located within an airport land use plan but is located two miles south of the General William J. Fox Airfield. This airfield is owned by the County of Los Angeles and is used by single and multi-engine airplanes, jet airplanes, and helicopters. There are 164 aircraft based at this facility, with an average of 224 aircraft operations per day (AirNav 2010). The proposed solar array would not generate or require air transportation. Also, the project would not change air traffic levels or change the location of air traffic to cause substantial safety risks. No impacts would occur. Impacts related to the creation of glare to approaching aircraft are addressed in Section 4.8, Hazards and Hazardous Materials.

d) No Impact

The proposed project would not affect adjacent roadways, as no new access driveways are proposed as part of the project. Also, the internal roadway on the site would be gravel-paved and used for access to the solar array and equipment buildings for inspection and maintenance. It is unlikely that more than two vehicles would be present on the site at any one time. This internal roadway would also not be used by other vehicles. Thus, no traffic hazard would be created by the project on adjacent roadways or within the site. No impact would occur.

e) No Impact

The site is not used for emergency access to the adjacent County facilities although the dirt roads on the site are used by the Sheriff's Department to patrol the area. The proposed project would have access through an existing driveway on West Avenue I and another driveway through the HDHS MACC from 60th Street West. Alternatively, the site may be accessed through the vacant area off 50th Street West. Internal road(s) would also be provided around the solar array. Available access, driveways, and the internal roadway would provide adequate emergency access to the site and would continue to be available for use by the Sheriff's Department that patrols the area. No impact on emergency access would occur.

f) No Impact

Vehicle trips to the project would be limited to maintenance personnel, estimated at 18 to 24 times per year. These trips are unlikely to involve bus transit due to the need for maintenance personnel to bring equipment to conduct inspections, repairs, and PV panel cleaning and realignments. With no bicycle routes or trails near the site, project-generated trips are also unlikely to utilize bicycles or involve walking to and from the site. Thus, no impact on alternative transportation systems in the City of Lancaster or conflicts with alternative transportation policies, plans, or programs would occur.

4.16.3 MITIGATION MEASURES

Project implementation would not result in significant impacts related to transportation or traffic; therefore, no mitigation is required.

4.17 UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

4.17.1 ENVIRONMENTAL SETTING

The project is in the Antelope Valley, which is underlain by the Antelope Valley Groundwater Basin ("Basin"). The Basin is located in the western portion of the Mojave Desert within the South Lahontan Hydrologic Region, and is designated as Groundwater Basin Number 6-44. The surface of the entire Antelope Valley Groundwater Basin is over 1 million acres (1,580 square miles) and is topographically closed on the north and northwest by the Garlock Fault at the base of the Tehachapi Mountains, and on the south and southwest by the San Andreas Fault at the base of the Transverse Ranges, including the San Gabriel Mountains. The Basin consists of the deep (confined) aquifer and the upper (unconfined) aquifer serving as the primary water source (URS 2010).

Planert and Williams (1995) and the DWR (1975) report that the total storage capacity of the Basin is 68 million acre-feet (maf) to 70 maf (DWR 2004). Agricultural and urban uses have been the primary sources of discharge from the groundwater system. According to the U.S. Geological Survey (USGS), groundwater extractions have exceeded the estimated natural recharge of the basin since the 1920s, which has resulted in declining water levels and land subsidence (primarily in the eastern portion of the Antelope Valley Groundwater Basin), as simulated by the USGS (USGS 2003). The average annual native recharge plus local return flows is currently estimated as approximately 82,300 afy (LADPW 2010). Coupled with return flows from imported water, the total sustainable yield of the Basin is estimated to be 110,500 afy (LADPW 2010).

Adjudication

Several property owners and public water suppliers initiated legal proceedings asking the Superior Court of California to determine the relative rights of users and potential users of the Antelope Valley Groundwater Basin (1-05-CV-049053: Antelope Valley Groundwater Cases, Consolidated Proceeding 4408). The case involves many complex legal issues, hundreds of parties, and it may take years to be resolved.

The underlying dispute among the parties is the priority/superior right to pump the groundwater and the protection of the Basin. According to the Court's Order After Phase Two Trial on the Hydrologic Nature of Antelope Valley, there are multiple claims to be adjudicated, including "declaratory relief, claims of prescription, claims of overlying owners to quiet title to water rights, claims that portions of the [B]asin should be treated as a separate area for management purposes in the event a physical solution to water use is established", among other issues and claims. At the conclusion of the Adjudication, the Basin will be in a state of balance for groundwater supply. On May 6, 2011, the Court provided a tentative ruling that the safe yield of the Basin is 110,000 afy.

There are no water, sewer, or solid waste disposal services at the project site. The undeveloped site also does not generate solid wastes requiring collection and disposal. The site is located within the service boundaries of the Los Angeles County Waterworks District No. 40, which derived approximately 37 percent of its supply from groundwater sources and approximately 63 percent from the California Aqueduct (via the State Water Project) in 2004 (Lancaster 2009a). Water to serve the adjacent County facilities is derived from a groundwater well located at the Mira Loma Detention Center.

Sewer services to the adjacent County facilities are provided by the Los Angeles County Sanitation District No. 14 through the Avenue I West Trunk line that is located on the eastern section of the County parcel (Lancaster 2005). Storm water that falls on the project site during a rain event is either absorbed into the surrounding soils, travels as sheet flow into the on-site drainage swales on the project site, and/or travels as sheet flow into the drainage facilities that surround the 620-acre block.

Regulatory Requirements

See RR 4.8-1 from Section 4.8 Hazards and Hazardous Materials

RR 4.17-1 Construction activities on the project site shall be conducted in compliance with Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse) of the *Los Angeles County Code*, which requires at least 50 percent of all C&D debris, soil, rock, and gravel removed from a project site to be recycled or reused unless a lower percentage is approved by the Los Angeles County Director of Public Works. An RRP must be submitted to the Los Angeles County Department of Public Works, Environmental Programs Division, after an application for a permit has been filed for a project. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

4.17.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) No Impact

No habitable structure would be constructed as part of the project; no restroom, bathroom, toilet, or kitchen facilities would be constructed; and no wastewater would be generated by the project. As a result, no wastewater treatment is required from the Los Angeles County Sanitation District No. 14 that may exceed RWQCB requirements. No impacts would occur.

b) Less than Significant Impact

No water or wastewater services or connections to existing facilities are required by the project. Water for washing the PV panels would be provided by a subcontractor that would bring in a water truck to spray the panels. Water in the truck would be obtained from groundwater supplies, imported water, recycled water, or other sources at the discretion of the subcontractor, but will not come from the site or the adjacent County facilities. No wastewater generation would occur with the project, and no demand of sewage treatment would be generated. No new water or wastewater treatment facilities or expansion of existing facilities is needed to serve the proposed solar array. Impacts would be less than significant.

c) Less than Significant Impact

The proposed project would not require construction of a storm drainage system or expansion of an existing storm water drainage or treatment facility. Construction of the project in compliance with RR 4.9-2, as previously discussed in Section 4.9, Hydrology and Water Quality, would ensure that the County requirements of the Los Angeles County Department of Public Works' *Standard Urban Stormwater Mitigation Plan* (SUSMP) and *2009 Low Impact Development (LID) Standard Manual* have been satisfied. Therefore, the proposed project would be designed and constructed with appropriate BMPs to ensure that adjacent storm drain facilities are not negatively impacted by the proposed project. Any structural BMPs would be located within the project boundaries and the impact area addressed throughout this IS/MND.

d) Less than Significant Impact with Mitigation

The proposed project would require minimal water supply during construction activities and for the washing of the PV panels during long-term maintenance. Water supply required during construction would primarily be used for fugitive dust control during asphalt removal and grading activities that would occur for a total of three months (two months for asphalt removal and two months for grading, with a one-month overlap) for each 2 MW facility. Assuming an average of 2,400 gallons of water used for dust control each day, 22 days of site watering per month, and a total of 6 months of asphalt removal, grading, excavation for both phases of the 4 MW facility, total water use during construction is estimated at approximately 1 acre-foot. Long-term operational activities would require water for PV panel washing at 1 to 4 times per year, which would be provided by a water truck (subcontracted to a private company). Water use for this maintenance activity is estimated at 8,000 gallons per year. The temporary demand for one acre-foot of water during construction over 6 months and the long-term demand for 8,000 gallons per year would be a de minimus amount of water in the Antelope Valley but due to concerns on overdrafting the Basin and ongoing Adjudication proceedings, water use by the project would create a demand for water in the Antelope Valley that could increase groundwater pumping. Due to the limited groundwater resources in the Antelope Valley, this is considered a significant impact.

In order to reduce any increase in groundwater pumping in the Basin, MM 4.17-1 requires that site watering during construction utilize non-potable water or water derived from sources other than the Basin. Also, MM 4.17-2 requires that no landscaped areas or planting requiring a permanent supply of irrigation water be provided as part of the project. These measures will prevent increased groundwater pumping and avoid the need for a permanent demand for water at the site. Impacts would be less than significant with mitigation.

e) No Impact

No wastewater requiring treatment services from the Los Angeles County Sanitation District No. 14 would be generated by the project. Thus, no demand for treatment capacity at the District's Lancaster Water Reclamation Plant would accompany the project. No impact would occur.

f, g) Less than Significant Impact

The proposed project would result in the generation of minor amounts of construction wastes, which would require disposal at the Lancaster Landfill. This landfill has a maximum permitted daily capacity of 1,700 tons per day (tpd) (Lancaster 2009a). According to Waste Management, the landfill's currently capacity is less than adequate to meet the growing daily needs of Lancaster and the surrounding community. Thus, Waste Management is in the process of acquiring a permit from Los Angeles County to allow more loads per day in order to accommodate continued growth of the community (Waste Management of Antelope Valley 2010).

The County adopted an ordinance, effective March 6, 2005, that requires all construction projects to recycle at least 50 percent of construction wastes. The ordinance amends Title 20 of the *Los Angeles County Code* by adding Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse). The ordinance states that at least 50 percent of all construction and demolition (C&D) debris, soil, rock, and gravel removed from a project site must be recycled or reused unless a lower percentage is approved by the Los Angeles County Director of Public Works. A Recycling and Reuse Plan (RRP) must be submitted to the Los Angeles County Department of Public Works, Environmental Programs Division, after an application for a permit has been filed for a project. The RRP must contain a project description and the estimated total weight of the project C&D debris, with separate estimates for (1) soil, rock, and gravel; (2) other inert materials; and (3) all other project C&D debris. The ordinance also requires that annual progress reports be submitted to the Los Angeles County Director of Public Works for review.

All waste generated during construction of the proposed project would be handled and disposed of in compliance with all applicable federal, State, and local statutes and regulations related to solid waste, including RR 4.17-1, which requires at least 50 percent of all C&D debris to be recycled or reused, and RR 4.8-1 (Section 4.8, Hazards and Hazardous Materials), which requires that hazardous materials encountered on site must be handled and disposed of in accordance with applicable laws. Therefore, with implementation of RR 4.17-1 and RR 4.8-1, there would be less than significant impacts related to landfill capacity and solid waste regulations.

No solid wastes would be generated by the operation of the project, and no demand for waste disposal or landfill capacity would occur in the long-term. Impacts would be limited and temporary during construction and are considered less than significant.

4.17.3 MITIGATION MEASURES

MM 4.17-1 Water used for site watering shall utilize non-potable water or water derived from sources other than the Antelope Valley Groundwater Basin. The County shall confirm this requirement is included as notes on the contractor specifications. The Contractor's compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

MM 4.17-2 No landscaped areas or planting requiring a permanent supply of irrigation water shall be installed at the site. Minimal landscaping for the site would require two acre-feet of water per year, a demand for water which will be avoided due to this mitigation measure. The County shall confirm this requirement is incorporated into the project design by the Project Engineer/Consultant and compliance with this requirement shall be verified by the County Department of Public Works prior to approval of the site improvement plans.

Implementation of these mitigation measures would reduce impacts to less than significant levels.

4.18 MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Does the project:				
a. Does the project have the potential to 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, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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 past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

4.18.1 EXISTING CONDITIONS

The project site is undeveloped and does not generate any environmental impacts aside from nuisance dust during high winds.

4.18.2 PROJECT IMPACTS

The impact analysis and conclusions in this section apply to both on-site and off-site activities.

a) As discussed in Section 4.4, Biological Resources, the proposed project would lead to the removal of existing saltbush scrub and ruderal vegetation, which may affect nesting birds and MM 4.4-1 would avoid this impact. Avoidance of Southern Willow Scrub vegetation in the Off-site Area is also called for under MM 4.4-2 and MM 4.4-3. With the implementation of MM 4.4-1, MM 4.4-2 and MM 4.4-3, impacts on sensitive biological resources would be reduced to less than significant levels. As discussed in Section 4.5, Cultural Resources, impacts on historic resources from implementation of the proposed project would be mitigated to less than significant levels with the implementation of MM 4.5-1. Significant adverse impacts on archaeological and paleontological resources would be avoided by MM 4.5-2 and MM 4.5-3.

b) Within the City of Lancaster, there are planned and proposed projects that may cumulatively increase environmental impacts in the project area. Proposals within four miles of the project site are identified as cumulative projects and are listed in Table 4-14 below.

TABLE 4-14
CUMULATIVE PROJECTS

Project Number	Address	Description	Status
CUP 08-06	Southeast corner of 25th Street West and Avenue J-4	Construct 22 unit townhome/apartments	Inactive
CUP 10-19	2801 West Avenue L	Primary on-sale of alcohol at a restaurant	PC Approved 9/20/10
CUP 10-20	East side of 30th Street West and north of Avenue M	6,935 sq ft place of worship	PC Approved 12/20/10
CUP 10-21	44810 Valley Central Way Ste. 214	Restaurant - entertainment uses	PC Approved 10/18/10
CUP 10-22	90th Street West and Avenue H	Solar photovoltaic electric generation facility	PC Approved 11/15/10
CUP 10-24	Southwest corner of 30th Street West and Avenue L	Construct 3,900 sq ft restaurant	PC Approved 12/20/10
CUP – Conditional Use Permit; PC – Planning Commission; sq ft – square feet Source: *City of Lancaster 2011.*			

The proposed project would have no impacts on Agriculture and Forest Resources, Land Use and Planning, Mineral Resources, Population and Housing and Recreation. Thus, the project would not contribute to cumulative impacts on these issues, as may be generated by the projects listed in Table 4-14 above. Potential impacts on Aesthetics, Air Quality, Geology and Soils, GHG Emissions, Public Services, and Transportation would be less than significant.

Cumulative impacts on Aesthetics include changes in the visual quality of the landscape through the introduction of new structures and infrastructure by new developments. While no specific development is proposed adjacent to the site, there are several development applications in the City of Lancaster that would lead to the construction of new structures in the project area (i.e., townhomes, place of worship, restaurant, and solar facility). Development and design review of individual development projects by the City of Lancaster would prevent the potential for adverse view impacts or negative aesthetic impacts to be created by new development. Compliance with applicable development and design standards by individual development projects would avoid or mitigate visual impacts so that aesthetic impacts do not become cumulatively significant.

Aside from pollutant emissions from the cumulative projects above, cumulative impacts on Air Quality include the generation of pollutant emissions in the Antelope Valley portion of the Mojave Desert Air Basin that would add to continued violation of clean air standards. Developments within the Antelope Valley would be required to comply with existing rules and regulations of the AVAQMD to reduce air pollutant generation and allow the air basin to attain federal and state air quality standards.

Geology and soils impacts are generally site specific and there is typically little, if any, cumulative relationship between the development of individual projects on separate sites. One development would not alter geologic events or soil features/characteristics (such as ground shaking, seismic intensity, or soil expansion) at another site, nor change geologic conditions or hazards at off-site locations. However, geologic and seismic conditions are regional in nature and affect large areas rather than individual parcels. The project and cumulative projects in the

surrounding area would be designed and built in accordance with applicable standards in the Lancaster or County Building Code. This will allow structures to withstand geologic and seismic hazards at acceptable levels. No cumulative adverse impacts are expected.

The proposed project is not expected to have cumulative adverse impacts on GHG emissions since a net reduction in GHG emissions would occur with the project through the provision of solar energy for use by the Mira Loma Detention Center and the CMYC.

Cumulative impacts on Public Services would occur with increasing demands for police and fire protection services from the project and the cumulative projects , as well as other planned developments within the service areas of the Los Angeles County Fire Department and the Los Angeles County Sheriff's Department. Individual developments are required to comply with pertinent provisions of the County Fire Code to prevent the creation of fire hazards, to promote fire safety, and to facilitate emergency response. The County Fire Department and County Sheriff's Department, which serve Lancaster also regularly review their services and the needed increases in staffing, fire stations, and equipment, as necessary, to keep response times acceptable and adequately serve their service areas. Compliance with these existing regulations would avoid potential significant cumulative adverse impacts on fire and police protection services.

Cumulative impacts on Transportation would occur as new vehicle trips are generated be new development, adding to congestion at local roads and intersections and freeways. However, four cumulative projects are located two to four miles southeast of the site near the SR-14 freeway and one project is located 3.2 miles to the northwest. Thus, vehicles trips from the proposed project are not expected to be utilizing the same roadways as these cumulative projects. In addition, development review of individual development projects by the City of Lancaster would identify needed roadway and intersection improvements and would prevent the potential for adverse traffic impacts to be created by new development. With relatively low volumes on streets surrounding the project site; the temporary vehicle trips during construction; and the 48 vehicle trips per year that would be generated by the project, cumulative adverse impacts on traffic would be less than significant.

As discussed above, the impacts of the project on Aesthetics, Air Quality, Geology and Soils, GHG Emissions, Public Services, and Transportation would be limited due to the size and type of improvements that would be built on the site and thus, would not be cumulatively considerable.

Potential impacts on Biological Resources, Cultural Resources Hazards and Hazardous Materials, and Hydrology and Water Quality, Noise and Utilities would be significant but mitigated to less than significant levels.

Cumulative impacts on Biological Resources include changes in plant and animal habitats in the Antelope Valley due to increasing urbanization and population growth in the region. As required by existing regulations, the disturbance or destruction of sensitive or protected species on a site would require a Section 10 or Section 7 consultation; permits from the USFWS, the CDFG, the RWQCB, and other resource agencies; and on-site preservation or off-site mitigation. The proposed project includes mitigation for the Southern Willow Scrub vegetation to avoid impacts to sensitive species and riparian communities. New developments would also need

to conduct biological surveys and provide the required on-site preservation or off-site mitigation in coordination with the CDFG, the USFWS, the USACE, and the RWQCB. Thus, while changes in the biological diversity of the Antelope Valley could occur with future growth and development, programs and regulations are in place that would reduce cumulative impacts on sensitive biological resources.

Due to the site-specific nature of cultural resources, it is difficult to determine if significant cumulative impacts to cultural resources would occur on individual development sites. Since cultural resources are site-specific, no cumulative significant adverse impacts are expected from future developments with implementation of site-level surveys and mitigation outlined as part of cultural resource studies for individual development projects. The implementation of the Solar Energy Project and the mitigation measures outlined above would prevent adverse impacts on cultural resources on the site. Thus, the project is not expected to have a cumulative contribution to the disturbance and/or destruction of cultural resources in the Antelope Valley.

Future development in the Antelope Valley can increase hazards as more facilities or operations utilize hazardous materials or are located near hazardous material users and generators. There are existing regulations for a variety of activities and uses relating to the protection of public health and safety at all levels of government. Compliance of individual projects with pertinent regulations would protect public health and safety and prevent hazards to existing and future developments. Thus, the proposed project and future developments in the Antelope Valley are not expected to present significant cumulative risks to public health and safety.

Future growth and development within the South Lahontan basin, where the site is located, would generate new sources for urban pollutants, which could impact water quality of surface water and groundwater resources. However, construction activities are regulated under the NPDES and Construction General Permit for the State. Construction activities are required to file NOIs and prepare SWPPPs to reduce pollutants in storm water during temporary ground-disturbing activities. Los Angeles County has adopted programs for long-term storm water pollution mitigation through the requirement for SUSMPs for individual developments and compliance with LID Standards. The City of Lancaster requires individual developments to prepare a Water Quality Management Plan (WQMP) to include Nonstructural/Source Control and Structural/Treatment Best Management Practices to conform to the City's Storm Water Management Plan and NPDES Permit. In addition, the Lahontan RWQCB requires permits that impose conditions, prohibitions, and guidelines for individual developments that may lead to discharges into the storm drain system or surface water bodies. These regulations implement the Water Quality Control Plan for the Lahontan Region and help meet the established water quality objectives for both groundwater and surface water bodies. No significant cumulative adverse impacts on hydrology and water quality are expected from the proposed project. Since project impacts would be less than significant after mitigation, impacts are not considered cumulatively considerable.

Cumulative impacts on Noise would occur when the noise impacts of the project are combined with the noise impacts of development in the surrounding area. No specific development is proposed adjacent to the site as the cumulative projects are located two to four miles from the site. Thus, noise impacts would be scattered and not cumulative for any one receptor. The construction of new structures in the project area and associated construction noise are also unlikely to occur at the same time as

the proposed project since these have been approved while the project is still in the permit approval process. Also, they would occur at scattered locations. Compliance with the noise regulations of the City or County would further prevent cumulative noise impacts during construction. Mitigation for construction noise impacts would reduce project impacts to less than significant levels. Also, the project would not create stationary noise impacts in the long-term and the 48 vehicle trips to and from the site per year would not contribute to any measurable increase in ambient noise levels. Cumulative noise impacts would be less than significant.

Cumulative impacts on Utilities would occur with increases in demand for water and solid waste disposal from the project and new developments in the project area. Water for construction and long-term maintenance of the project would be brought to the site by water trucks and are not expected to require water supply or service from the Los Angeles County Waterworks District No. 40, which serves the project area. Mitigation measures would also be implemented to reduce demand for local groundwater supplies. Solid waste disposal would be confined to the construction phase of the project and would not contribute to long-term demand for landfill space. While cumulative projects would result in increased demands for water, sewer and solid waste disposal services, the project would reduce its impacts to less than significant levels and thus, its cumulative impacts would also be less than significant.

c) Project construction and operation could have the potential to generate significant adverse impacts on human beings, either directly or indirectly. Mitigation measures have been developed in this IS/MND for potentially significant adverse impacts, and implementation of the regulatory requirements and the mitigation measures would reduce environmental impacts to less than significant levels.

SECTION 5.0 REFERENCES

AirNav, LLC. 2010 (June 3, information effective date). General Wm J Fox Airfield. Atlanta, GA: AirNav, LLC. http://www.airnav.com/airport/KWJF.

Antelope Valley Air Quality Management District (AVAQMD). 2010. AVAQMD Designations and Classifications. Lancaster, CA: AVAQMD. http://www.avaqmd.ca.gov/index.aspx?page=289.

———. 2008 (December). *Antelope Valley AQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*. Lancaster, CA: AVAQMD. http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=2106.

Antelope Valley Indian Museum (AVIM). 2010 (April 20, access date). American Indian Peoples of the Antelope Valley. Lancaster, CA: AVIM. http://www.avim.parks.ca.gov/people/.

Antelope Valley Transit Authority (AVTA). 2010 (January 17). Route 7: Quartz Hill. Lancaster, CA: AVTA. http://www.avta.com/transit/New%20Service%202010/Route_7.pdf.

Applied Earthworks. 2007. *Cultural Resources Survey for the Lane Ranch Towne Center Project in Lancaster, Los Angeles County, California*. Fresno, CA: Applied Earthworks.

Bean, L.J. and C.R. Smith. 1978. Gabrielino. *Handbook of North American Indians, California, Volume 8* (R.F. Heizer [Ed.]). Washington, D.C.: Smithsonian Institution.

Blackburn, T. and L.J. Bean. 1978 Kitanemuk. *Handbook of North American Indians, California* (Volume 8) (R.F. Heizer [Ed.]). Washington, D.C.: Smithsonian Institution.

California Air Resources Board (CARB). 2010 (February 16). *Ambient Air Quality Standards*. Sacramento, CA: CARB. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

———. 2008 (December). *Climate Change Proposed Scoping Plan, a Framework for Change.* Sacramento, CA: CARB.

California Assembly. 2006. Assembly Bill No. 32: Air pollution: greenhouse gases: California Global Warming Solutions Act of 2006 (Nunez). Sacramento, CA: the State. http://www.arb.ca.gov/cc/docs/ab32text.pdf.

California Building Standards Commission (CBSC). 2010 (April 12, last updated). CCR, Title 24. Sacramento, CA: BSC. http://www.bsc.ca.gov/title_24.html. (CBSC 2010).

California Department of Conservation (DOC). 2007. Los Angeles County Tsunami Inundation Maps. Sacramento, CA: DOC. http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/LosAngeles/Pages/LosAngeles.aspx.

———. 1987 (January). *SMARA Designation Report No. 8 – Designation of Regionally Significant Construction Aggregate Resource Areas in the Saugus-Newhall and Palmdale Production-Consumption Regions*. Sacramento, CA: DOC.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR). 2009. DOGGR Online Mapping System. Sacramento, CA: DOGGR. http://maps.conservation.ca.gov/doms/index.html

———. 2001. *Oil, Gas, and Geothermal Fields in California, 2001*. Sacramento, CA: DOGGR.

California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP). 2009 (September). *Los Angeles County Important Farmland 2008*. Sacramento, CA: FMMP.

California Department of Corrections and Rehabilitation (CDCR). 2010. California State Prison, Los Angeles County (LAC). Sacramento, CA: CDCR. http://www.cdcr.ca.gov/Facilities _Locator/LAC-Institution_Stats.html\

California Department of Finance (DOF). 2010. *Report E-5: City/County Population and Housing Estimates 2000-2010.* Sacramento, CA: DOF.

California Department of Fish and Game (CDFG). 2010. California Natural Diversity Database. Records of Occurrence for Del Sur, Lancaster West, Little Buttes, and Rosamond quadrangle maps. Sacramento, CA: CDFG, Natural Heritage Division

———. 2003 (September). *List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base*. Sacramento, CA: Natural Heritage Division.

California Department of Forestry and Fire Protection (CAL FIRE). 2007 (September 24). *Los Angeles County – Draft Fire Hazard Severity Zones in LRA*. Sacramento, CA: CAL FIRE.

California Department of Forestry and Fire Protection (CAL FIRE), Fire and Resources Assessment Program (FRAP). 2003 (March 11). *Land Cover – Multi-Source Data Compiled for Forest and Range 2003 Assessment*. Sacramento, CA: CAL FIRE, Fire and Resources Assessment Program.

California Department of Transportation (Caltrans). 2010. 2009 Traffic and Vehicle Data Systems Unit (a spreadsheet). Sacramento, CA: Caltrans. http://www.dot.ca.gov/ hq/traffops/saferesr/trafdata/2009all/Route12-15i.htm

———. 2007 (December 7). California Scenic Highway Mapping System. Sacramento, CA: Caltrans. http://www. dot.ca.gov/hq/LandArch/scenic_highways/index.htm

California Department of Water Resources (DWR). 2004 (February 27). *California's Groundwater Bulletin 118: Antelope Valley Groundwater Basin*. Sacramento, CA: DWR. http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/6-7.pdf.

California Employment Development Department (EDD). 2010 (April 16). *Monthly Labor Force Data for Cities and Census Designated Places (CDP) March 2010 – Preliminary*. Sacramento, CA: EDD.

———*. 2011 (March 25). Monthly Labor Force Data for Cities and Census Designated Places (CDP) February 2011 – Preliminary.* Sacramento, CA: EDD.

California Geological Survey (CGS). 2006 (December). *Aggregate Availability in California*. Sacramento, CA: CGS. http://www.consrv.ca.gov/cgs/minerals/mlc/Pages/index.aspx.

California Governor's Office of Planning and Research (OPR). 2008 (June 18). *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review.* Sacramento, CA: OPR. http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf.

California Office of Administrative Law. 2010 (April 2, current through). *California Code of Regulations* (Title 14, Natural Resources; Division 6, Resources Agency; Chapter 3, Guidelines for Implementation of the California Environmental Quality Act). Sacramento, CA: the State. http://government.westlaw.com/linkedslice/default.asp?Action=TOC&RS=GVT1.0&VR=2.0&SP=CCR-1000.

California Public Utilities Commission (CPUC). 2010 (June). *California Solar Initiative – Program Handbook*. Sacramento. CA: CPUC.California Senate. 2006 (September 26). Senate Bill No. 107: Renewable Energy: Public Interest Energy Research, Demonstration, and Development Program (Simitian). Sacramento, CA: the State. http://www.energy.ca.gov/portfolio/documents/sb_107 _bill_20060926_chaptered.pdf.

———. 2002 (September 12). Senate Bill No. 1078: Renewable energy: California Renewables Portfolio Standard Program (Sher). Sacramento, CA: the Senate. http://www.energy.ca.gov/portfolio/documents/SB1078.PDF.

California, State of. 2010a. *California Health and Safety Code* (Sections 7050.5–7055, General Provisions). Sacramento, CA: the State of California. http://info.sen.ca.gov/cgi-bin/displaycode?section=hsc&group=07001-08000 &file=7050.5-7055.

———. 2010b. *California Public Resources Code* (Sections 5020–5029.5, Historical Resources). Sacramento, CA: the State. http://info.sen.ca.gov/cgi-bin/displaycode ?section= prc&group=05001-06000&file=5020-5029.5.

———. 2010c. *California Public Resources Code* (Sections 5097.9–5097.991, Native American Historical, Cultural, and Sacred Sites). Sacramento, CA: the State of California. http://info.sen.ca.gov/cgi-bin/displaycode?section=prc&group=05001-06000&file=5097.9-5097.991.

———. 2010d. *California Public Resources Code* (Sections 21000 et seq., California Environmental Quality Act). Sacramento, CA: California Resource Agency. http://info.sen.ca.gov/cgi-bin/calawquery?codesection=prc&codebody=&hits=20&site=sen.

California, State of. 2010. *California Public Utilities Code* (Sections 21670 et seq.). Sacramento, CA: the State of California. http://info.sen.ca.gov/cgi-bin/displaycode?section=puc&group=21001-22000&file=21670-21679.5.

California State Military Museum, The. 2009. Historic California Posts: War Eagle Field (Liberty Field). Sacramento, CA: California State Military Museum. www.militarymuseum.org/wareaglefield.html.

enXco, Inc. (enXco). 2009. Solar Energy. San Diego, CA: enXco, Inc. http://www.enxco.com/solar_energy_overview.php

England and Nelson Environmental Consultants (England and Nelson). 1976. *Los Angeles County Significant Ecological Area Study*. (Prepared for the Los Angeles County Department of Regional Planning and Environmental Systems Research Institute). Riverside, CA: England and Nelson Environmental Consultants.

Federal Aviation Administration (FAA). 1993 (March). Federal Aviation Regulations - Part 77. Washington D.C.: FAA.

Federal Emergency Management Agency (FEMA). 2008 (September 26). Flood Insurance Rate Map – Panel 06037C0405F. Washington, D.C.: FEMA.

Lahontan Regional Water Quality Control Board (Lahontan RWQCB). 2005 (as amended). *Water Quality Control Plan for the Lahontan Region*. Victorville, CA: Lahontan RWQCB. http://www.swrcb.ca.gov/rwqcb6/water_issues/programs/basin_plan/references.shtml.

Lancaster, City of. 2011 (April 27, access date). Project Status. Lancaster, CA: the City. http://portal.cityoflancasterca.org/Lists/Project%20Status/Planning%20Projects.aspx

———. 2010a (May 20, access date). Project Status. Lancaster, CA: the City. http://portal.cityoflancasterca.org/Lists/Project%20Status/Project%20Status.aspx?SortField=Project_x0020_Number&SortDir=Desc&View={01F14736-9162-404D-8E22-39CF4F6E2B17}

———. 2010b (February 9, last update). *Lancaster, California Code of Ordinances*. Tallahassee, FL: Municipal Code Corporation. http://library.municode.com/index.aspx?clientId=16042&stateId=5&stateName=California.

———. 2010c (April 7). Personal communication. Telephone conversation between Beverly Cox (Planning Department, City of Lancaster) and Josephine Alido (BonTerra Consulting).

———. 2009a (April). *General Plan 2030 Master Environmental Assessment.* Lancaster, CA: the City.

———. 2009b (July 14, adopted). *City of Lancaster General Plan 2030*. Lancaster, CA: the City. http://www.cityoflancasterca.org/Index.aspx?page=427.

———. 2005. Overview Map of District Sewers in Lancaster. Lancaster, CA: the City.

———.1998 (October 13). Zoning Map – Westside. Lancaster, CA: the City.

Los Angeles, County of. 2010a (May 25, as updated). *Los Angeles County, California Code of Ordinances*. Tallahassee, FL: Municipal Code Corporation for the County. http://search.municode.com/html/16274/index.htm.

———. 2010b (May 20, access date). Countywide Energy and Environmental Policy. Los Angeles, CA: the County. http://green.lacounty.gov/cms1_089640.asp.

Los Angeles County Airport Land Use Commission (ALUC). 2004 (December 1). *General William J. Fox Airfield Land Use Compatibility Plan*. Los Angeles, CA: ALUC. http://planning. lacounty.gov/assets/upl/project/aluc_fox-lucp.pdf.

Los Angeles County Department of Public Works (LADPW). 2010. *Water Requirements and Groundwater Supply* (prepared by Luhdorff & Scalmanini Consulting Engineers). Los Angeles, CA: LADPW.

Los Angeles County Department of Regional Planning (LACDRP). 1990 (December 6). *Los Angeles County General Plan, Safety Element, Plates 1 through 8*. Los Angeles, CA: LACDRP. http://planning.lacounty.gov/assets/upl/project/gp_web80-tech-plates-01-to-08.pdf.

Los Angeles County Metropolitan Transportation Authority (MTA). 2010 (October 28). *2010 Congestion Management Program.* Los Angeles, CA: MTA. http://www.metro.net/projects_studies/cmp/images/CMP_Final_2010.pdf.

Norwood, R. 1995. *Phase I Cultural Resource Investigation for Parcels APN 3176-5-902; 3176-9-17, 18, 19; 3176-10-24 Lancaster, Los Angeles County, California*. Fullerton, CA: South Central Coastal Information Center, California State University, Fullerton.

Parsons. 2010 (February). *Lancaster Solar Energy Site – Phase 1 Environmental Site Assessment* (prepared for the Los Angeles County Department of Public Works). Los Angeles, CA: Parsons Group.

South Coast Air Quality Management District (SCAQMD). 2008 (October). *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*. Diamond Bar, CA: SCAQMD.

Tang, T., M. Hogan, and C. Tibbet (Tang et al.). 2004. *Historic-Period Building Survey, Northeast Gateway Corridors Plan EIR, City of Lancaster, Los Angeles County, California*. Fullerton, CA: South Central Coastal Information Center, California State University, Fullerton.

Thalheimer, E. 2000. Construction Noise Control Program and Mitigation Strategy as the Central Artery/Tunnel Project. *Noise Control Engineering Journal* 48(5), Sep–Oct. Indianapolis, IN: Institute of Noise Control Engineering.

Twining Laboratories, 2011 (February 21). *Geotechnical Engineering and Engineering Geologic Evaluation Report.* Long Beach, CA: Twining Laboratories.

URS Corporation (URS). 2010 (February). *American Land Title Association (ALTA) Survey*. Los Angeles, CA: URS.

U.S. Congress. 2007 (January 3). *33 United States Code* (Chapter 26, Water Pollution Prevention and Control; Sections 1251 et seq., Clean Water Act of 1977). Washington, D.C.: U.S. Government Printing Office. http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=BROWSE&TITLE=33USCC26 &PDFS=YES.

U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 1969 (revised). *Report and General Soil Map, Los Angeles County, California*. Lancaster, CA: USDA NRCS.

U.S. Department of Energy (USDOE). 2010 (site accessed May 20). Solar FAQs – Photovoltaics – The Basics. Washington, DC: USDOE. http://apps1.eere.energy.gov/solar/cfm/faqs/third_level.cfm/name=Photovoltaics/cat=The%20Basics#Q10.

———. 2005 (last updated December 29). *Solar Energy Technologies Program – Technologies – Antireflective Coating*. Washington, DC: USDOE. http://www1.eere.energy.gov/solar/antireflective_coating.html.

U.S. Department of the Interior and Bureau of Land Management (USDOI and BLM). 2006 (March 13). *Record of Decision, West Mojave Plan*. Washington, D.C. and Sacramento, CA: USDOI and BLM. http://www.blm.gov/ca/pdfs/cdd_pdfs/wemo_pdfs/wemo_rod_3-06.pdf.

U.S. Department of Transportation, Federal Highway Administration (FHWA). 2009 (December). *Manual on Uniform Traffic Control Devices for Streets and Highways*. Washington, D.C.: FHWA. http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf.

U.S. Environmental Protection Agency (USEPA). 1971. *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*. Washington, D.C.: USEPA.

U.S. Geological Survey (USGS). 1974. 7.5-Minute Quadrangle for Lancaster West, California. Washington, D.C.: USGS.

———. 2003. *Simulation of Ground-Water Flow and Land Subsidence in the Antelope Valley Ground-Water Basin, California* - Water-Resources Investigations Report 03-4016. Sacramento, CA: USGS. http://pubs.usgs.gov/wri/wrir034016/wrir034016.book.pdf.

Waste Management of Antelope Valley. 2010 (May 18, last accessed). Keeping Antelope Valley Clean, Lancaster Landfill and Recycling Center. Palmdale, CA: Waste Management of Antelope Valley. http://www.keepingavclean.com/currentprojectl.html.

APPENDIX A

AIR QUALITY AND GREENHOUSE GAS ANALYSIS: URBEMIS MODEL DATA

4/7/2011 07:24:38 AM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\BonTerra User\My Documents\Current\Lancaster solar CoLACAO J006\urbemis\LancSolar 040611.urb924

Project Name: Lancaster Solar Array rev 040611 - 2 phases

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5
2011 TOTALS (lbs/day unmitigated)	7.29	67.89	34.19	0.05	129.56	3.46	133.02	27.05	3.18	30.23
2011 TOTALS (lbs/day mitigated)	7.29	67.89	34.19	0.05	~~74.56~~	3.46	~~78.02~~	~~15.57~~	3.18	~~18.75~~
					59.86		63.32	12.51		15.69
2012 TOTALS (lbs/day unmitigated)	10.10	79.93	42.19	0.05	129.57	4.00	133.57	27.05	3.68	30.73
2012 TOTALS (lbs/day mitigated)	10.10	79.93	42.19	0.05	~~74.57~~	4.00	~~78.57~~	~~15.57~~	3.68	~~19.25~~
					59.87		63.87	12.51		16.19
2013 TOTALS (lbs/day unmitigated)	1.74	14.44	7.91	0.00	0.00	0.66	0.66	0.00	0.60	0.60
2013 TOTALS (lbs/day mitigated)	1.74	14.44	7.91	0.00	0.00	0.66	0.66	0.00	0.60	0.60

Note: PM10 and PM2.5 fugitive dust from demolition manually reduced by 50 percent because URBEMIS does not calculate fugitive dust mitigation for demolition.

4/7/2011 07:24:38 AM

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5
Time Slice 10/3/2011-11/4/2011 Active Days: 25	4.52	44.59	20.92	0.04	29.54	2.27	31.81	6.16	2.09	8.25
Demolition 10/03/2011-12/02/2011	4.52	44.59	20.92	0.04	29.54	2.27	31.81	6.16	2.09	8.25
Fugitive Dust	0.00	0.00	0.00	0.00	29.40	0.00	29.40	6.12	0.00	6.12
Demo Off Road Diesel	2.18	16.64	8.40	0.00	0.00	1.10	1.10	0.00	1.02	1.02
Demo On Road Diesel	2.29	27.87	11.25	0.04	0.14	1.16	1.30	0.04	1.07	1.11
Demo Worker Trips	0.04	0.07	1.27	0.00	0.01	0.00	0.01	0.00	0.00	0.01

Note: PM10 and PM2.5 fugitive dust from demolition manually reduced by 50 percent because URBEMIS does not calculate fugitive dust mitigation for demolition. This calculation shown only for maximum day time slices.

Time Slice 11/7/2011-12/2/2011 Active Days: 20	7.29	67.89	34.19	0.05	~~74.56~~	3.46	~~78.02~~	~~15.57~~	3.18	~~18.75~~
					59.86		63.32	12.51		15.69
Demolition 10/03/2011-12/02/2011	4.52	44.59	20.92	0.04	~~29.54~~	2.27	~~31.81~~	~~6.16~~	2.09	~~8.25~~
					14.84		17.11	3.10		5.19
Fugitive Dust	0.00	0.00	0.00	0.00	~~29.40~~	0.00	~~29.40~~	~~6.12~~	0.00	~~6.12~~
					14.70		14.70	3.06		3.06
Demo Off Road Diesel	2.18	16.64	8.40	0.00	0.00	1.10	1.10	0.00	1.02	1.02
Demo On Road Diesel	2.29	27.87	11.25	0.04	0.14	1.16	1.30	0.04	1.07	1.11
Demo Worker Trips	0.04	0.07	1.27	0.00	0.01	0.00	0.01	0.00	0.00	0.01
Fine Grading 11/07/2011-12/30/2011	2.78	23.30	13.27	0.01	45.02	1.19	46.21	9.40	1.09	10.50
Fine Grading Dust	0.00	0.00	0.00	0.00	45.00	0.00	45.00	9.40	0.00	9.40

Fine Grading Off Road Diesel	2.52	20.44	11.12	0.00	0.00	1.07	1.07	0.00	0.98	0.98
Fine Grading On Road Diesel	0.23	2.80	1.13	0.00	0.01	0.12	0.13	0.00	0.11	0.11
Fine Grading Worker Trips	0.03	0.06	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Time Slice 12/5/2011-12/30/2011 Active Days: 20	5.36	44.86	24.81	0.01	45.03	2.35	47.37	9.41	2.16	11.56
Building 12/05/2011-07/31/2012	1.96	17.33	8.27	0.00	0.00	0.85	0.86	0.00	0.79	0.79
Building Off Road Diesel	1.94	17.10	7.91	0.00	0.00	0.84	0.84	0.00	0.78	0.78
Building Vendor Trips	0.02	0.22	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading 11/07/2011-12/30/2011	2.78	23.30	13.27	0.01	45.02	1.19	46.21	9.40	1.09	10.50
Fine Grading Dust	0.00	0.00	0.00	0.00	45.00	0.00	45.00	9.40	0.00	9.40
Fine Grading Off Road Diesel	2.52	20.44	11.12	0.00	0.00	1.07	1.07	0.00	0.98	0.98
Fine Grading On Road Diesel	0.23	2.80	1.13	0.00	0.01	0.12	0.13	0.00	0.11	0.11
Fine Grading Worker Trips	0.03	0.06	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Trenching 12/05/2011-06/01/2012	0.62	4.23	3.27	0.00	0.00	0.31	0.31	0.00	0.28	0.28
Trenching Off Road Diesel	0.60	4.20	2.76	0.00	0.00	0.30	0.30	0.00	0.28	0.28
Trenching Worker Trips	0.02	0.03	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 1/2/2012-2/24/2012 Active Days: 40	2.43	19.71	11.30	0.00	0.01	1.03	1.03	0.00	0.94	0.95
Building 12/05/2011-07/31/2012	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 12/05/2011-06/01/2012	0.57	3.93	3.23	0.00	0.00	0.27	0.28	0.00	0.25	0.25
Trenching Off Road Diesel	0.55	3.90	2.75	0.00	0.00	0.27	0.27	0.00	0.25	0.25

Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 2/27/2012-3/6/2012 Active Days: 7	9.78	19.71	11.38	0.00	0.01	1.03	1.03	0.00	0.94	0.95
Building 12/05/2011-07/31/2012	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating 02/27/2012-03/06/2012	7.35	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	7.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 12/05/2011-06/01/2012	0.57	3.93	3.23	0.00	0.00	0.27	0.28	0.00	0.25	0.25
Trenching Off Road Diesel	0.55	3.90	2.75	0.00	0.00	0.27	0.27	0.00	0.25	0.25
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 3/7/2012-3/30/2012 Active Days: 18	2.43	19.71	11.30	0.00	0.01	1.03	1.03	0.00	0.94	0.95
Building 12/05/2011-07/31/2012	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 12/05/2011-06/01/2012	0.57	3.93	3.23	0.00	0.00	0.27	0.28	0.00	0.25	0.25
Trenching Off Road Diesel	0.55	3.90	2.75	0.00	0.00	0.27	0.27	0.00	0.25	0.25
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 4/2/2012-4/27/2012 Active Days: 20	6.36	58.53	29.67	0.04	29.55	2.93	32.48	6.16	2.70	8.86
Building 12/05/2011-07/31/2012	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69

4/7/2011 07:24:38 AM

Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition 04/02/2012-06/01/2012	3.93	38.82	18.38	0.04	29.54	1.90	31.45	6.16	1.75	7.91
Fugitive Dust	0.00	0.00	0.00	0.00	29.40	0.00	29.40	6.12	0.00	6.12
Demo Off Road Diesel	1.80	13.83	7.12	0.00	0.00	0.88	0.88	0.00	0.81	0.81
Demo On Road Diesel	2.10	24.92	10.08	0.04	0.14	1.02	1.15	0.04	0.94	0.98
Demo Worker Trips	0.04	0.07	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01
Trenching 12/05/2011-06/01/2012	0.57	3.93	3.23	0.00	0.00	0.27	0.28	0.00	0.25	0.25
Trenching Off Road Diesel	0.55	3.90	2.75	0.00	0.00	0.27	0.27	0.00	0.25	0.25
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 4/30/2012-6/1/2012 Active Days: 25	8.96	**79.93**	**42.19**	**0.05**	~~74.57~~	**4.00**	~~78.57~~	~~15.57~~	**3.68**	~~19.25~~
					59.87		63.87	12.51		16.19
Building 12/05/2011-07/31/2012	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition 04/02/2012-06/01/2012	3.93	38.82	18.38	0.04	~~29.54~~	1.90	~~31.45~~	~~6.16~~	1.75	~~7.91~~
					14.84		16.75	3.10		4.86
Fugitive Dust	0.00	0.00	0.00	0.00	~~29.40~~	0.00	~~29.40~~	~~6.12~~	0.00	~~6.12~~
					14.70		14.70	3.06		3.06
Demo Off Road Diesel	1.80	13.83	7.12	0.00	0.00	0.88	0.88	0.00	0.81	0.81
Demo On Road Diesel	2.10	24.92	10.08	0.04	0.14	1.02	1.15	0.04	0.94	0.98
Demo Worker Trips	0.04	0.07	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01

4/7/2011 07:24:38 AM

Fine Grading 04/30/2012-06/29/2012	2.60	21.40	12.52	0.00	45.02	1.07	46.09	9.40	0.98	10.39
Fine Grading Dust	0.00	0.00	0.00	0.00	45.00	0.00	45.00	9.40	0.00	9.40
Fine Grading Off Road Diesel	2.39	19.21	10.71	0.00	0.00	0.98	0.98	0.00	0.90	0.90
Fine Grading On Road Diesel	0.18	2.14	0.86	0.00	0.01	0.09	0.10	0.00	0.08	0.08
Fine Grading Worker Trips	0.03	0.05	0.95	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Trenching 12/05/2011-06/01/2012	0.57	3.93	3.23	0.00	0.00	0.27	0.28	0.00	0.25	0.25
Trenching Off Road Diesel	0.55	3.90	2.75	0.00	0.00	0.27	0.27	0.00	0.25	0.25
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 6/4/2012-6/29/2012 Active Days: 20	7.22	59.25	33.75	0.01	45.03	2.99	48.01	9.41	2.75	12.15
Building 06/04/2012-02/01/2013	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building 12/05/2011-07/31/2012	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading 04/30/2012-06/29/2012	2.60	21.40	12.52	0.00	45.02	1.07	46.09	9.40	0.98	10.39
Fine Grading Dust	0.00	0.00	0.00	0.00	45.00	0.00	45.00	9.40	0.00	9.40
Fine Grading Off Road Diesel	2.39	19.21	10.71	0.00	0.00	0.98	0.98	0.00	0.90	0.90
Fine Grading On Road Diesel	0.18	2.14	0.86	0.00	0.01	0.09	0.10	0.00	0.08	0.08
Fine Grading Worker Trips	0.03	0.05	0.95	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Trenching 06/04/2012-12/28/2012	0.89	6.29	5.09	0.00	0.00	0.41	0.41	0.00	0.38	0.38

4/7/2011 07:24:38 AM

Trenching Off Road Diesel	0.87	6.25	4.38	0.00	0.00	0.41	0.41	0.00	0.37	0.37
Trenching Worker Trips	0.02	0.04	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Time Slice 7/2/2012-7/31/2012 Active Days: 22	4.62	37.85	21.23	0.00	0.01	1.92	1.93	0.00	1.76	1.77
Building 06/04/2012-02/01/2013	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building 12/05/2011-07/31/2012	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 06/04/2012-12/28/2012	0.89	6.29	5.09	0.00	0.00	0.41	0.41	0.00	0.38	0.38
Trenching Off Road Diesel	0.87	6.25	4.38	0.00	0.00	0.41	0.41	0.00	0.37	0.37
Trenching Worker Trips	0.02	0.04	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Time Slice 8/1/2012-9/3/2012 Active Days: 24	2.75	22.07	13.16	0.00	0.01	1.16	1.17	0.00	1.07	1.07
Building 06/04/2012-02/01/2013	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 06/04/2012-12/28/2012	0.89	6.29	5.09	0.00	0.00	0.41	0.41	0.00	0.38	0.38
Trenching Off Road Diesel	0.87	6.25	4.38	0.00	0.00	0.41	0.41	0.00	0.37	0.37
Trenching Worker Trips	0.02	0.04	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Time Slice 9/4/2012-9/12/2012 Active Days: 7	**10.10**	22.07	13.24	0.00	0.01	1.16	1.17	0.00	1.07	1.07

4/7/2011 07:24:38 AM

Building 06/04/2012-02/01/2013	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating 09/04/2012-09/12/2012	7.35	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	7.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 06/04/2012-12/28/2012	0.89	6.29	5.09	0.00	0.00	0.41	0.41	0.00	0.38	0.38
Trenching Off Road Diesel	0.87	6.25	4.38	0.00	0.00	0.41	0.41	0.00	0.37	0.37
Trenching Worker Trips	0.02	0.04	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Time Slice 9/13/2012-12/28/2012 Active Days: 77	2.75	22.07	13.16	0.00	0.01	1.16	1.17	0.00	1.07	1.07
Building 06/04/2012-02/01/2013	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 06/04/2012-12/28/2012	0.89	6.29	5.09	0.00	0.00	0.41	0.41	0.00	0.38	0.38
Trenching Off Road Diesel	0.87	6.25	4.38	0.00	0.00	0.41	0.41	0.00	0.37	0.37
Trenching Worker Trips	0.02	0.04	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Time Slice 12/31/2012-12/31/2012 Active Days: 1	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building 06/04/2012-02/01/2013	1.87	15.78	8.07	0.00	0.00	0.75	0.76	0.00	0.69	0.69
Building Off Road Diesel	1.84	15.58	7.73	0.00	0.00	0.75	0.75	0.00	0.69	0.69
Building Vendor Trips	0.02	0.19	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4/7/2011 07:24:38 AM

Time Slice 1/1/2013-2/1/2013 Active Days: 24	1.74	14.44	7.91	0.00	0.00	0.66	0.66	0.00	0.60	0.60
Building 06/04/2012-02/01/2013	1.74	14.44	7.91	0.00	0.00	0.66	0.66	0.00	0.60	0.60
Building Off Road Diesel	1.72	14.25	7.60	0.00	0.00	0.65	0.65	0.00	0.60	0.60
Building Vendor Trips	0.02	0.17	0.14	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Worker Trips	0.01	0.01	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 11/7/2011 - 12/30/2011 - Phase I 20 acre grading

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Fine Grading 4/30/2012 - 6/29/2012 - Phase II 20 acre grading

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

4/7/2011 07:25:25 AM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\BonTerra User\My Documents\Current\Lancaster solar CoLACAO J006\urbemis\LancSolar 040611.urb924

Project Name: Lancaster Solar Array rev 040611 - 2 phases

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5
2011 TOTALS (tons/year unmitigated)	0.18	1.68	0.85	0.00	2.67	0.09	2.75	0.56	0.08	0.64
2011 TOTALS (tons/year mitigated)	0.18	1.68	0.85	0.00	1.57	0.09	1.65	0.33	0.08	0.41
Percent Reduction	0.00	0.00	0.00	0.00	41.27	0.00	39.98	41.28	0.00	36.12
2012 TOTALS (tons/year unmitigated)	0.58	4.43	2.48	0.00	2.92	0.23	3.14	0.61	0.21	0.82
2012 TOTALS (tons/year mitigated)	0.58	4.43	2.48	0.00	1.68	0.23	1.91	0.35	0.21	0.56
Percent Reduction	0.00	0.00	0.00	0.00	42.44	0.00	39.38	42.44	0.00	31.61
2013 TOTALS (tons/year unmitigated)	0.02	0.17	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01
2013 TOTALS (tons/year mitigated)	0.02	0.17	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4/7/2011 07:25:25 AM

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5
2011	0.18	1.68	0.85	0.00	1.57	0.09	1.65	0.33	0.08	0.41
Demolition 10/03/2011-12/02/2011	0.10	1.00	0.47	0.00	0.66	0.05	0.72	0.14	0.05	0.19
Fugitive Dust	0.00	0.00	0.00	0.00	1.62	0.00	1.62	0.34	0.00	0.34
Demo Off Road Diesel	0.05	0.37	0.19	0.00	0.00	0.02	0.02	0.00	0.02	0.02
Demo On Road Diesel	0.05	0.63	0.25	0.00	0.00	0.03	0.03	0.00	0.02	0.03
Demo Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading 11/07/2011-12/30/2011	0.06	0.47	0.27	0.00	0.90	0.02	0.92	0.19	0.02	0.21
Fine Grading Dust	0.00	0.00	0.00	0.00	0.90	0.00	0.90	0.19	0.00	0.19
Fine Grading Off Road Diesel	0.05	0.41	0.22	0.00	0.00	0.02	0.02	0.00	0.02	0.02
Fine Grading On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building 12/05/2011-07/31/2012	0.02	0.17	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Off Road Diesel	0.02	0.17	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 12/05/2011-06/01/2012	0.01	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching Off Road Diesel	0.01	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4/7/2011 07:25:25 AM

2012	0.58	4.43	2.48	0.00	1.68	0.23	1.91	0.35	0.21	0.56
Building 12/05/2011-07/31/2012	0.14	1.20	0.61	0.00	0.00	0.06	0.06	0.00	0.05	0.05
Building Off Road Diesel	0.14	1.18	0.59	0.00	0.00	0.06	0.06	0.00	0.05	0.05
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 12/05/2011-06/01/2012	0.03	0.22	0.18	0.00	0.00	0.02	0.02	0.00	0.01	0.01
Trenching Off Road Diesel	0.03	0.21	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Trenching Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating 02/27/2012-03/06/2012	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition 04/02/2012-06/01/2012	0.09	0.87	0.41	0.00	0.66	0.04	0.71	0.14	0.04	0.18
Fugitive Dust	0.00	0.00	0.00	0.00	1.62	0.00	1.62	0.34	0.00	0.34
Demo Off Road Diesel	0.04	0.31	0.16	0.00	0.00	0.02	0.02	0.00	0.02	0.02
Demo On Road Diesel	0.05	0.56	0.23	0.00	0.00	0.02	0.03	0.00	0.02	0.02
Demo Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading 04/30/2012-06/29/2012	0.06	0.48	0.28	0.00	1.01	0.02	1.04	0.21	0.02	0.23
Fine Grading Dust	0.00	0.00	0.00	0.00	1.01	0.00	1.01	0.21	0.00	0.21
Fine Grading Off Road Diesel	0.05	0.43	0.24	0.00	0.00	0.02	0.02	0.00	0.02	0.02
Fine Grading On Road Diesel	0.00	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building 06/04/2012-02/01/2013	0.14	1.19	0.61	0.00	0.00	0.06	0.06	0.00	0.05	0.05
Building Off Road Diesel	0.14	1.18	0.58	0.00	0.00	0.06	0.06	0.00	0.05	0.05
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Building Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching 06/04/2012-12/28/2012	0.07	0.47	0.38	0.00	0.00	0.03	0.03	0.00	0.03	0.03
Trenching Off Road Diesel	0.06	0.47	0.33	0.00	0.00	0.03	0.03	0.00	0.03	0.03
Trenching Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating 09/04/2012-09/12/2012	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	0.02	0.17	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building 06/04/2012-02/01/2013	0.02	0.17	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Off Road Diesel	0.02	0.17	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 11/7/2011 - 12/30/2011 - Phase I 20 acre grading

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Fine Grading 4/30/2012 - 6/29/2012 - Phase II 20 acre grading

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

4/7/2011 07:26:04 AM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\BonTerra User\My Documents\Current\Lancaster solar CoLACAO J006\urbemis\LancSolar 040611.urb924

Project Name: Lancaster Solar Array rev 040611 - 2 phases

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO2	CO2e	Metric tons CO2e
2011 TOTALS (tons/year unmitigated)	216.36		
2011 TOTALS (tons/year mitigated)	216.36	218.31	198
Percent Reduction	0.00		
2012 TOTALS (tons/year unmitigated)	652.96		
2012 TOTALS (tons/year mitigated)	652.96	658.83	598
Percent Reduction	0.00		
2013 TOTALS (tons/year unmitigated)	29.91		
2013 TOTALS (tons/year mitigated)	29.91	30.18	27
Percent Reduction	0.00		
TOTAL			**823**
Amortize over 30 years			**27.4**

4/7/2011 07:26:04 AM

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	CO2
2011	216.36
Demolition 10/03/2011-12/02/2011	137.48
Fugitive Dust	0.00
Demo Off Road Diesel	41.27
Demo On Road Diesel	92.72
Demo Worker Trips	3.50
Fine Grading 11/07/2011-12/30/2011	48.96
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	38.20
Fine Grading On Road Diesel	8.28
Fine Grading Worker Trips	2.49
Building 12/05/2011-07/31/2012	24.92
Building Off Road Diesel	24.26
Building Vendor Trips	0.42
Building Worker Trips	0.25
Trenching 12/05/2011-06/01/2012	4.99
Trenching Off Road Diesel	4.37
Trenching Worker Trips	0.62
2012	652.96
Building 12/05/2011-07/31/2012	189.42

4/7/2011 07:26:04 AM

Building Off Road Diesel	184.35
Building Vendor Trips	3.17
Building Worker Trips	1.90
Trenching 12/05/2011-06/01/2012	27.47
Trenching Off Road Diesel	24.05
Trenching Worker Trips	3.42
Coating 02/27/2012-03/06/2012	0.04
Architectural Coating	0.00
Coating Worker Trips	0.04
Demolition 04/02/2012-06/01/2012	133.80
Fugitive Dust	0.00
Demo Off Road Diesel	37.59
Demo On Road Diesel	92.72
Demo Worker Trips	3.50
Fine Grading 04/30/2012-06/29/2012	53.72
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	42.97
Fine Grading On Road Diesel	7.95
Fine Grading Worker Trips	2.80
Building 06/04/2012-02/01/2013	188.18
Building Off Road Diesel	183.14
Building Vendor Trips	3.15
Building Worker Trips	1.89
Trenching 06/04/2012-12/28/2012	60.30

Trenching Off Road Diesel	53.31
Trenching Worker Trips	6.99
Coating 09/04/2012-09/12/2012	0.04
Architectural Coating	0.00
Coating Worker Trips	0.04
2013	29.91
Building 06/04/2012-02/01/2013	29.91
Building Off Road Diesel	29.11
Building Vendor Trips	0.50
Building Worker Trips	0.30

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 11/7/2011 - 12/30/2011 - Phase I 20 acre grading

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Fine Grading 4/30/2012 - 6/29/2012 - Phase II 20 acre grading

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by

PM10: 55% PM25: 55%

4/21/2011 06:02:07 PM

Urbemis 2007 Version 9.2.4

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\BonTerra User\My Documents\Current\Lancaster solar CoLACAO J006\urbemis\LancSolarOps 042011.urb924

Project Name: Lancaster Solar Operations

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25
Solar Array	0.07	0.14	0.89	0.00	0.20	0.04
TOTALS (tons/year, unmitigated)	0.07	0.14	0.89	0.00	0.20	0.04

Totals shown above are 100 times project emissions. Project trip rate multiplied by 100 to yield non-zero results.

Totals shown below are project emissions.

TOTALS (tons/year, unmitigated)	0.0007	0.0014	0.0089	0.00	0.002	0.0004

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Solar Array		13.00	1000 sq ft	1.00	13.00	650.00
					13.00	650.00

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	10.0	0.6	99.2	0.2
Light Truck < 3750 lbs	30.0	1.5	97.0	1.5

Light Truck 3751-5750 lbs	30.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.0	1.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	10.0	0.0	86.7	13.3
Lite-Heavy Truck 10,001-14,000 lbs	10.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	100.0
Motorcycle	0.0	60.9	39.1	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	50.0	50.0	50.0
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Solar Array				2.0	1.0	97.0

Operational Changes to Defaults

Commercial-based commute urban trip length changed from 13.3 miles to 50 miles

Commercial-based non-work urban trip length changed from 7.4 miles to 50 miles

Commercial-based customer urban trip length changed from 8.9 miles to 50 miles

Urbemis 2007 Version 9.2.4

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name:

Project Name: Lancaster Solar Operations

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

Source	CO2	Metric Tons CO2e
Solar Array	1.27	
TOTALS (tons/year, unmitigated)	1.27	1.2

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Solar Array		0.13	1000 sq ft	1.00	0.13	6.50
					0.13	6.50

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	10.0	0.6	99.2	0.2
Light Truck < 3750 lbs	30.0	1.5	97.0	1.5
Light Truck 3751-5750 lbs	30.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.0	1.0	99.0	0.0

Lite-Heavy Truck 8501-10,000 lbs	10.0	0.0	86.7	13.3
Lite-Heavy Truck 10,001-14,000 lbs	10.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	100.0
Motorcycle	0.0	60.9	39.1	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	50.0	50.0	50.0
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Solar Array				2.0	1.0	97.0

Operational Changes to Defaults

Commercial-based commute urban trip length changed from 13.3 miles to 50 miles

Commercial-based non-work urban trip length changed from 7.4 miles to 50 miles

Commercial-based customer urban trip length changed from 8.9 miles to 50 miles

APPENDIX B-1

ARCHAEOLOGICAL RECORDS SEARCH
AND
NATIVE AMERICAN CONSULTATION

SCCIC Bibliography: Lancaster Solar Farm

LA-00131

Author(s): Gerry, Robert
Year: 1988
Title: Cultural Resource Assessment of the Proposed California State Prison, Lancaster, Los Angeles County, California
Affliliation:
Resources: 19-001412
Quads: LANCASTER WEST
Pages:
Notes:

LA-01917

Author(s): Singer, Clay A. and John E. Atwood
Year: 1989
Title: Cultural Resources Survey and Impact Assessment for Six Properties Near Lancaster (gpa Group), Los Angeles County, California.
Affliliation: C.A. Singer & Associates, Inc.
Resources:
Quads: LANCASTER WEST
Pages:
Notes:

LA-07966

Author(s): Hudlow, Scott M.
Year: 2006
Title: A Phase I Cultural Resource Survey for APNs 3156-001-021, -022, -023, -024, and -025 and 3153-002-001, -019, -020, -021, and -022, Property at 50th Street West and Jackman Street, City of Lancaster, California
Affliliation: Hudlow Cultural Resource Associates
Resources:
Quads: LANCASTER WEST
Pages:
Notes:

LA-07991

Author(s): Tang, Bai "Tom", Michael Hogan, and Josh Smallwood
Year: 2006
Title: Cultural Resources Technical Report City of Lancaster General Plan Update
Affliliation: CRM Tech
Resources:
Quads: ALPINE BUTTE, DEL SUR, LANCASTER EAST, LANCASTER WEST, LITTLE BUTTES, REDMAN, ROSAMOND, ROSAMOND LAKE
Pages:
Notes:

SCCIC Bibliography: Lancaster Solar Farm

LA-08142

Author(s): Underbrink, Susan and JoEllen Ross-Hauer
Year: 2007
Title: Report of a Phase I Cultural Resources Inventory for a Proposed Storm Drain in the City of Lancaster, Los Angeles County, California
Affliliation: Chambers Group, Inc.
Resources: 19-002886, 19-002887, 19-002888
Quads: LANCASTER WEST
Pages:
Notes:

LA-08342

Author(s): McKenna, Jeanette A.
Year: 2005
Title: A Phase I Cultural Resources Investigation for the Taft Corporation Property, APNs 3203-015-077 (5 Acres) in the City of Lancaster, Los Angeles County, California
Affliliation: McKenna et al.
Resources:
Quads: LANCASTER WEST
Pages:
Notes:

LA-08350

Author(s): Slawson, Dana N.
Year: 2001
Title: Historical Resources Assessment, Mira Loma Detention Center-hangars No. 1 and 2, Lancaster, California
Affliliation: Greenwood and Associates
Resources: 19-001412, 19-187634
Quads: LANCASTER WEST
Pages:
Notes:

LA-08438

Author(s): McKenna, Jeanette A.
Year: 2004
Title: A Phase I Cultural Resources Investigation for the Taft Corporation Property, APNs 3203-015-059, -060, -069, and -143, in the City of Lancaster, Los Angeles County, California
Affliliation: McKenna et al.
Resources:
Quads: LANCASTER WEST
Pages:
Notes:

LA-08456

Author(s): Hudlow, Scott M.
Year: 2004
Title: A Phase I Cultural Resources Survey for Property at 45th West and Avenue J-8, City of Lancaster, California
Affliliation: Hudlow Cultural Resource Associates
Resources:
Quads: LANCASTER WEST
Pages:
Notes:

SCCIC Bibliography: Lancaster Solar Farm

LA-08940

Author(s): Sanka, Jennifer M.
Year: 2006
Title: Phase 1 Cultural Resource Assessment and Paleontological Records Review Ttm 062758 and 062759, Lancaster, Los Angeles County, California
Affliliation: Michael Brandman Associates
Resources: 19-003658
Quads: LANCASTER WEST
Pages:
Notes:

LA-10144

Author(s): DeGiovine, Michael M. and Wilson, Stacy L.
Year: 2008
Title: Second Addendum: Archaeological Survey Report for Southern California Edison Company the 66KV Antelope Bus Split Project, Los Angeles County, CA
Affliliation: ICF Jones & Stokes
Resources: 19-002715, 19-003381, 19-003680, 19-003817, 19-100316
Quads: LANCASTER EAST, LANCASTER WEST
Pages: 34
Notes:

LA-10372

Author(s): Wlodarski, Robert
Year: 2009
Title: A Phase 1 Archaeological Study for Tentative Tract 70761 Located East of 60th Street West and South of Jamaica Lane, City of Lancaster, Los Angeles County, California
Affliliation: H.E.A.R.T
Resources: 19-000412, 19-002887, 19-002888
Quads: LANCASTER WEST
Pages: 12
Notes:

BonTerra CONSULTING

TRANSMITTAL

DATE: April 29, 2010

TO:	Mr. Dave Singleton	**FAX NUMBER:**	(916) 657-5390
	Program Analyst	**TEL NUMBER:**	(916) 653-6251
	Native American Heritage Comm.	**PROJECT:**	**Lancaster Solar Farm**
	915 Capitol Mall, Rm. 364	**FROM:**	
	Sacramento, CA 95814		Patrick Maxon, RPA

☒ Fax / Pages__ ☒ E-Mail ☐ Fed Ex / Overnite Express ☐ Delivery / Courier

REGARDING: Sacred Lands File Search and Contact List Request

Dear Mr. Singleton:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, Los Angeles County, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines).

At your earliest convenience, please conduct a search of the Sacred Lands File for the proposed project, located within Section 14 (Township 7 North; Range 13 West) of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle. The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Please fax the results to me at (714) 444-9599, or e-mail to p.maxon@bonterraconsulting.com, referencing your letter to the "**Lancaster Solar Farm Project** ".

If you have any questions or require any additional information, please do not hesitate to contact me at (714) 444-9199 or via email.

Sincerely,

BONTERRA CONSULTING

Patrick Maxon, RPA
Director, Cultural Resources

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

May 3, 2010

Mr. Patrick Maxon, RPA, Director – Cultural Resources
BonTerra Consulting
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626-7969

Sent by FAX to: (714) 444-9599
No. of Pages: 4

Re: Request for a Sacred Lands File Search and Native American Contacts List for the proposed "Lancaster Solar Farm Project " located in the City of Lancaster; Los Angeles County, California

Dear Mr. Maxon:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources (c.f. CA Public Resources Code §21070; also c.f. *Environmental Protection Information Center v. Johnson [198]) 170 Cal App. 3rd 604*), was able to perform a record search of its Sacred Lands File (SLF) for the affected project area (APE) requested. The California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177)) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." The NAHC SLF search **did not Indicate** the presence of Native American cultural resources within one-half mile of the proposed project site (APE).. However, there are Native American cultural resources in close proximity to the APE.

Also, this letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway., Culturally-affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation Coordinator's office (at (916) 653-7278, for referral to the nearest Information Center of which there are 10.

Consultation with tribes and interested Native American consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f]*et seq),* 36 CFR Part 800.3 (f) (2), the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq.*) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. . The 1992 *Secretary of the Interior's Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including *cultural landscapes.*

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery.

Although tribal consultation under the California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) is 'advisory' rather than mandated, the NAHC does request 'lead agencies' to work with tribes and interested Native American individuals as 'consulting parties.' However, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does mandate tribal consultation for the 'electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC. Consultation on specific projects must be the result of an on-going relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance' may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C. 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contacts

Native American Contacts
May 3, 2010
Los Angeles County

Charles Cooke
32835 Santiago Road
Acton , CA 93510
(661) 733-1812 - cell
suscol@intox.net
Chumash
Fernandeno
Tataviam
Kitanemuk

Ron Wermuth
P.O. Box 168
Kernville , CA 93238
warmoose@earthlink.net
(760) 376-4240 - Home
(916) 717-1176 - Cell
Tubatulabal
Kawaiisu
Koso
Yokuts

San Manuel Band of Mission Indians
James Ramos, Chairperson
26569 Community Center Drive
Highland , CA 92346
(909) 864-8933
(909) 864-3724 - FAX
(909) 864-3370 Fax
Serrano

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez
981 N. Virginia
Covina , CA 91722
(626) 339-6785
Yowlumne
Kitanemuk

Fernandeno Tataviam Band of Mission Indians
William Gonzales, Cultural/Environ Depart
601 South Brand Boulevard, Suite 102
San Fernando CA 91340
rortega@tataviam-nsn.us
(818) 837-0794 Office
(818) 581-9293 Cell
(818) 837-0796 Fax
Fernandeno
Tataviam

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838
Newhall , CA 91322
tsen2u@hotmail.com
(661) 753-9833 Office
(760) 885-0955 Cell
(760) 949-1604 Fax
Fernandeño
Tataviam
Serrano
Vanyume
Kitanemuk

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm.
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Randy Guzman - Folkes
655 Los Angeles Avenue, Unit E
Moorpark , CA 93021
ndnRandy@gmail.com
(805) 905-1675 - cell
Chumash
Fernandeño
Tataviam
Shoshone Paiute
Yaqui

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 Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.3.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Lancaster Solar Farm Project; located in the City of Lancaster; Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Native American Contacts
May 3, 2010
Los Angeles County

Kawaiisu Tribe of Tejon Reservation
David Laughinghorse Robinson
PO Box 1547 Kawaiisu
Kernville , CA 93238
(661) 664-3098 - work
(661) 664-7747 - home
horse.robinson@gmail.com

San Manuel Band of Mission Indians
Ann Brierty, Policy/Cultural Resources Departmen
26569 Community Center. Drive Serrano
Highland , CA 92346
abrierty@sanmanuel-nsn.
(909) 864-8933 EXT-3250
(909) 649-1585 - cell
(909) 862-5152 Fax

Kern Valley Indian Council
Robert Robinson, Historic Preservtion Officer
P.O. Box 401 Tubatulabal
Weldon , CA 93283 Kawaiisu
brobinson@mchsi.com Koso
(760) 378-4575 (Home) Yokuts
(760) 549-2131 (Work)

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 Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.3.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Lancaster Solar Farm Project; located in the City of Lancaster; Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested.

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com

151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. Ron Andrade, Director
LA City/County Native American Indian Comm.
3175 W. 6th Street, Rm. 403
Los Angeles, California 90020

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Andrade:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Ms. Ann Brierty, Policy/Cultural Resources Department
San Manuel Band of Mission Indians
26569 Community Center Dr.
Highland, California 92346

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Ms. Brierly:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com

151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. Charles Cooke
Tehachapi Indian Tribe
32835 Santiago Road
Acton, California 93510

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Cooke:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com

151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Ms. Delia Dominguez
Kitanemuk & Yowlumne Tejon Indians
981 N. Virginia
Covina, California 91722

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Ms. Dominguez:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. William Gonzales
Fernandeno Tataviam Band of Mission Indians
601 South Brand Blvd. Suite 102
San Fernando, California 91340

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Gonzales:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com

151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. Randy Guzman-Folkes
655 Los Angeles Avenue
Unit E
Moorpark, California 93021

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Guzman-Folkes:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. James Ramos, Chairperson
San Manuel Band of Mission Indians
26569 Community Center Dr.
Highland, California 92346

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Ramos:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com

151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. David Laughinghorse Robinson
Kawaiisu Tribe
P.O. Box 20849
Bakersfield, California 93390

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Robinson:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. Robert Robinson, Historic Preservation Officer
Kern Valley Indian Council
P.O. Box 401
Weldon, California 93283

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Robinson:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com

151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. John Valenzuela, Chairperson
San Fernando Band of Mission Indians
P.O. Box 221838
Newhall, California 91322

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Valenzuela:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc

BonTerra CONSULTING

PASADENA COSTA MESA

T: (714) 444-9199 F: (714) 444-9599
www.BonTerraConsulting.com
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

May 4, 2010

Mr. Ron Wermuth
PO Box 168
Kernville, California 93238

Subject: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, California

Dear Mr. Wermuth:

BonTerra Consulting has been retained to complete a cultural resources study for the proposed **Lancaster Solar Farm Project** located in the City of Lancaster, California. This project does not require a General or Specific Plan amendment or adoption; therefore, the project is not subject to the statutory requirements of Senate Bill 18 (Tribal Consultation Guidelines). However, as part of the background cultural resources research being conducted, this letter is to inform you of the proposed project and to request any relevant information you may have regarding cultural resources on or near the project site.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) **did not indicate** the presence of Native American cultural resources within one-half mile of the project area; however, there are resources in close proximity. The NAHC also provided BonTerra Consulting with a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area. Your name and contact information was included on the list and serves as the basis for this letter.

An archaeological/historic records search was conducted at the South Central Coastal Information Center, California State University, Fullerton on May 3, 2010. No sites are recorded on the project site. A pedestrian survey of the project site will be conducted by an experienced archaeologist to assess current conditions.

Location

The project site consists of one currently undeveloped parcel totaling approximately 100 acres that is slated for the development of a solar farm. The project area is shown on a portion of the USGS **Lancaster West, CA** 7.5 Minute Quadrangle, Section 14 (Township 7 North; Range 13 West). The section is bounded by West Avenue I, West Avenue J, 60th Street West, and 50th Street West. Refer to attached exhibit.

Project

The solar farm would be built on approximately 100 acres of undeveloped, County-owned land surrounded by the Mira Loma State Prison, the Los Angeles County Animal Shelter, and the current High Desert Hospital/Multi-Service Ambulatory Care Center (MACC). The proposed solar farm is expected to generate solar energy for use by the adjacent public facilities, with potential to tie into the electrical power grid of the Southern California Edison Company.

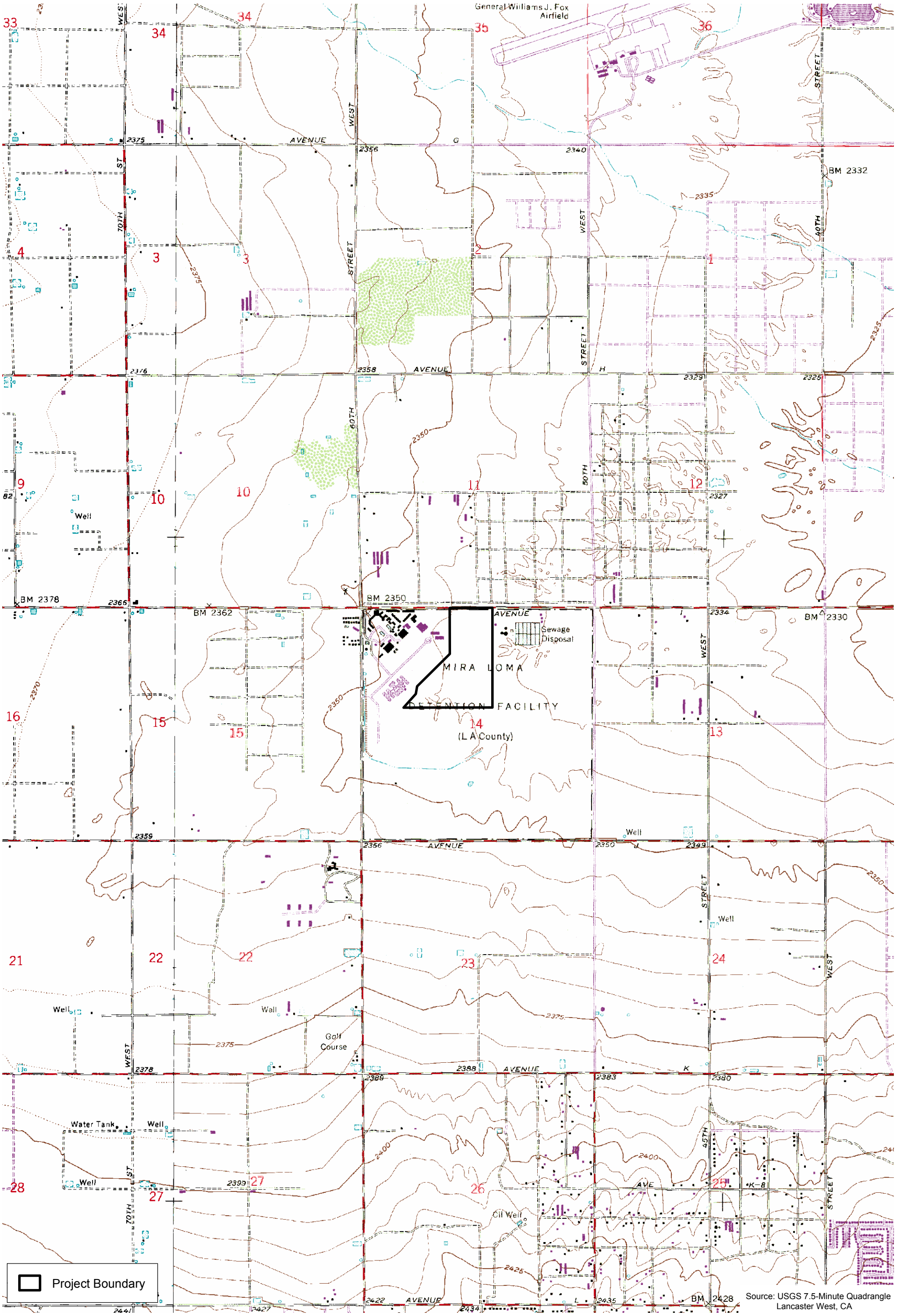
Your participation in this local planning process is important. If you have any additional knowledge of Native American Sacred Lands or other cultural resources on or near the study area, or any comment on the project, please contact me at your earliest convenience at (714) 444-9199 or via email at pmaxon@bonterraconsulting.com, with a subject line referencing the "**Lancaster Solar Farm Project**".

Sincerely,

BONTERRA CONSULTING

Patrick O. Maxon, RPA
Director, Cultural Resources

R:\Projects\CoLACAO\J006\Cultural\NA Letters-050410.doc



Source: USGS 7.5-Minute Quadrangle
Lancaster West, CA

Project Location

CoLACAO J006

N W E S

2,000 1,000 0 2,000 Feet

BonTerra CONSULTING

(Rev 04/29/10 CJS) Projects/CoLACAO/J006/Graphics/Misc/field_map_11x17_quad.pdf

D:\Projects\CoLACAO\J006\mxd\field_map_11x17_quad.mxd

Larry J. Ortega Sr.
Tribal President

Tribal Historic & Cultural Preservation Committee
William Gonzalez
Chairman
Steve Ortega
Berta Pleitez

Fernandeño Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

May 19, 2010

Mr. Patrick O. Maxon
Director of Cultural Resources
Bonterra Consulting
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

Re: Lancaster Solar Farm Project, City of Lancaster, Los Angeles County, CA

Dear Mr. Maxon,

We appreciate the opportunity to be able to provide comments on the proposed Lancaster Solar Panel Project in the City of Lancaster, California. The Fernandeño Tataviam Band of Mission Indians is a California Native American government in northern Los Angeles County. The State of California trustee agency for Native American Cultural Resources, the Native American Heritage Commission, designated the Tribe as the local trustee agency within northern Los Angeles County by limits of its tribal historic boundaries. The Tribe fully engages, to the extent of the respected governing laws, to protect and maintain all historic and cultural sites in which the Tribe may have interest.

After careful review of the information that you have provided, the Tribe has concluded that there is concern that cultural resources might be impacted. The area of the proposed project site is considered sensitive of Native American cultural resources, as numerous archaeological sites have been documented in the surrounding areas. These areas had been used for habitation, hunting, occupational sites, religious worship and burials. Given the potential for disturbance the Tribe requests that the project formally proceed with tribal consultation and proposes to provide tribal monitoring during project operation. In addition, the Tribe requests copies of information on the proposed project, including information on ground disturbance and any processes that might impact cultural resources. Should you have any questions, please feel free to contact the Tribe's Director of Public Affairs, Nicole Johnson, at njohnson@tataviam-nsn.us or by phone at (951) 813-1598.

Sincerely,

for
William Gonzalez
Committee Chairman

TRIBAL CULTURAL RESOURCES SERVICES

The Fernandeño Tataviam Band of Mission Indians (Tribe) has the necessary qualifications, experience and abilities to provide Native Monitoring for scared lands and burial sites. The Tribe is prepared to work with the client to provide any and all documentation needed to facilitate permit processes, on the terms and conditions outlined below.

SUMMARY OF GENERAL TERMS & CONDITIONS

1. Native Monitoring and Consulting

The Tribe will provide services consisting of Tribal Consultation and Monitoring for the agreed upon duration of the project.

Tribal consultation is defined as, "the process of seeking, discussing, and considering the views of the Tribe and seeking agreement with the Tribe on how cultural resources should be identified, considered, and any other process to facilitate agreement as deemed necessary by the Tribe and the Client." Consultation may include, but is not limited to, research provided to the Client by the Tribe, Tribal attendance at meetings with, or on behalf of the Client, etc.

Tribal monitoring is defined as "observing the site location, features, and activities for cultural and archaeological resources during ground-disturbance while a project is occurring." Occasionally, monitoring may be required where soil disturbance does not occur as well.

2. Compensation

For services provided by the Tribe, the Client will pay the Tribe in accordance to the Fee Structure provided below. Compensation will be set upon terms agreed to by both parties as services are rendered.

3. Fee Structure

Time spent on the project by professional, monitor, and clerical personnel will be billed hourly. The following ranges of hourly rates for various categories of personnel are currently in effect:

Hourly Rate	Category
$125	Consultation
$75	Monitoring
$75	Clerical

Hourly rates will be adjusted semi-annually to reflect changes in the cost-of-living index as published. If overtime for nonprofessional personnel is required, the premium differential figured at time and one-half of their regular hourly rates are charged at direct cost to the project. Unless otherwise stated, any cost estimate presented in a proposal is for budgetary purposes only, and is not a fixed price.

4. Capacity/Independent Contractor

It is expressly agreed that the Tribe would be acting as an independent contractor and not as an employee in providing the Services hereunder.

APPENDIX B-2

PALEONTOLOGICAL RECORDS SEARCH

Natural History Museum of Los Angeles County

900 Exposition Boulevard • Los Angeles, CA 90007

Telephone: (213) 763-3325
FAX: (213) 746-7431
e-mail: smcleod@nhm.org

6 June 2010

BonTerra Consulting
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626-7969

Attn: Patrick O. Maxon, Director, Cultural Resources

re: Paleontological Resources for the proposed Lancaster Solar Farm Project, near Lancaster, Los Angeles County, project area

Dear Patrick:

I have conducted a thorough search of our Vertebrate Paleontology records for the proposed Lancaster Solar Farm Project, near Lancaster, Los Angeles County, project area as outlined on the portion of the Lancaster West USGS topographic quadrangle map that you sent to me via e-mail on 29 April 2010. We do not have any vertebrate fossil localities that lie within the project boundaries, but we do have localities from the same type of sedimentary deposits that may occur within the proposed project area.

The surficial deposits in the entire proposed project area are composed exclusively of younger Quaternary Alluvium beneath soil. These types of sedimentary deposits usually do not contain significant vertebrate fossils, at least in the uppermost layers. Some miles to the east-southeast of the proposed project area, however, along Avenue S from Little Rock east almost to the San Bernardino County line, we have localities LACM 5942-5953 from pipeline excavations in the Quaternary Alluvium and older Quaternary sediments that produced a fauna of small vertebrates including gopher snake, *Pituophis*, kingsnake, *Lampropeltis*, leopard lizard, *Gambelia wislizenii*, cottontail rabbit, *Sylvilagus*, pocket mouse, *Chaetodipus*, kangaroo rat, *Dipodomys*, and pocket gopher, *Thomomys*.

Surface grading or shallow excavations in the proposed project area are unlikely to encounter significant vertebrate fossils in the younger Quaternary Alluvium. Deeper excavations that extend into older deposits, however, may well uncover significant fossil vertebrate remains. Any substantial excavations in the proposed project area below the uppermost layers, therefore,

should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Because some of the localities from similar sedimentary deposits have produced only very small fossils that would be missed in paleontological monitoring of typical construction projects, it is recommended that sediment samples be collected to determine the small vertebrate fossil potential in these rock units. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: draft invoice

APPENDIX B-3

HISTORICAL RESOURCES ASSESSMENT

DALY & Associates
4486 University Avenue, Riverside, California 92501
(951) 369-1366

May 11, 2011

Pat Maxon
Cultural Resources Manager
BonTerra Consulting
151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626

Re: Phase I Evaluation of Built-Environment Resources on the County of Los Angeles Solar Energy Project Site, Lancaster, California

Dear Mr. Maxon;

Daly & Associates has completed an investigation of built-environment resources that could be impacted by activities associated with the proposed construction and operation of a solar energy facility in the city of Lancaster, Los Angeles County. This investigation was performed to identify any potential historic resources that may be impacted by implementation of the proposed project.

The subject property consists of approximately 65 acres and is located on the north half of Section 14, Township 7 North, Range 13 West, Lancaster West Quad. The entire 640 acres of Section 14 is assigned APN 3203-014-901 with the County of Los Angeles in control of the north half of Section 14, and the State of California reserving the southern half of the section for its use. (LA County Tax Assessor, Assessor's Map of APN 3203-014-901).

The north half of Section 14 is noted as being owned by the County of Los Angeles and consists of 355.96 acres bound on the north by Avenue I, on the west by 60th Street West and on the east by 50th Street West. The parcel contains vacant undeveloped land located between the County of Los Angeles Mira Loma Detention Center to the west, the Challenger Memorial Youth Center to the east, and the California State Prison – Los Angeles County to the south. The lands on the north side of Avenue I across from the proposed project site are vacant and undeveloped.

The investigation of built-environment resources consisted of a pedestrian survey of the subject property, research into the historic development of the area, and a review of individual property information available from archival sources. (See attached list of resources, maps and historic photographs used for this report.) The resources found in the area of potential effect (APE) included a collection of large concrete structures, a loading ramp, sections of asphalt pavement, and portable light fixtures.

Project Site Existing Conditions

The proposed project area is vacant land located between the Mira Loma Detention Center (MLDC) to the west and the Challenger Memorial Youth Center (CMYC) to the east. The County of Los Angeles is the owner of all the land where the MLDC, CMYC and proposed project area are located. Metal, cyclone fencing serves as the boundary lines for the detention and youth centers.

Located along the eastern boundary of the vacant land, adjacent to the western fenceline of the CMYC, and within the boundary of the CMYC, are structures and equipment that are associated with an aerobic sewage treatment and water reclamation system. There are six structures on the proposed project site that are integral parts of a sewage treatment system that appears to have been constructed in 1946 at the time the California Vocational Institute for Boys was opened on the site of the old Mira Loma Flight Academy and War Eagle Airfield. The sewer treatment system was later abandoned in the late 1960s when the City of Lancaster and the County of Los Angeles created a water reclamation system. Aerial photographs from 1953 show the sewage treatment system and associated lagoons have been constructed on the subject parcel.

The loading ramp is located in the southern portion of the APE, where it expands to the west, near the MLDC fenceline. It stands by itself with no other buildings or structures in the vicinity. The runway light fixtures were collected and relegated to an area just north of the sewage treatment structures. Broken sections of asphalt pavement are located in various locations on both northern and middle sections of the APE.

Methodology

The research involved with this investigation included a review of the information available through the Los Angeles County Tax Assessor's property records for individual parcels, research into the history of the entire parcel from local archives, and a pedestrian survey to evaluate the individual structures for historical significance and integrity.

The table below presents the chronological data of the development on legal parcel APN 3203-014-901.

Use	Dates	
Polaris Flight Academy/Mira Loma Flight Academy/War Eagle Field	1941 to 1945	Located in the northwest corner of Section 14.
Flight training contract canceled by the U.S. Army Air Forces	May 1945	
Housing Units at Mira Loma Flight Academy will be converted to use for personnel attached to Muroc Army Airfield.	August 1945	
Mira Loma Flight Academy buildings to be used to create a vocational school under the California Youth Authority.	November 1945	
California Vocational Institution for boys between 17 and 21 opens with over 300 residents.	April 1946	
Sewage treatment system is constructed to the east of the Vocational Institute. It is located just to the south of a natural artesian well and holding pond.	Circa 1946	
Los Angeles County purchases the north half of Section 14 from the U.S. Government for $1 The airfield is kept intact.	October 1947	
The Mira Loma County Jail for mid-security prisoners is opened to replace the Youth Vocational School. A tuberculosis ward is opened for the treatment of 100 prisoners.	May 1954	
Two new medium security barrack buildings are	September 1957	

planned for construction. Adrian Wilson & Associates are the architects and engineers for the project.		
Los Angeles County Animal Shelter is constructed just to the east of the sewage treatment system.	Circa 1958	
A new 200-bed Tubercular Segregation Hospital and Recalcitrant Unit is completed. Adrian Wilson & Associates are the architects and engineers for the project.	August 1961	In 1969 this facility will become known as the Mira Loma Hospital. The name is changed to High Desert Hospital in 1985. In 2003, the facility was converted to a Multi-service Ambulatory Care Center (MACC) under the name of the High Desert Health System.
Sewage treatment system is abandoned with the improvements to the County of Los Angeles Water Treatment System in Lancaster. Municipal sewer lines may have been laid to connect MLDC.	Circa 1969	

Description of Built-Environment Resources

A. Sewage Treatment System

The buildings and structures of the sewage treatment and water reclamation system are located in the northwest quarter, of the northeast quarter, of Section 14. The sewage settling ponds (or lagoons) were located to the east of the sewage treatment system on the land where the CMYC is now located. Six of the structures associated with the sewage treatment system are separated by the west boundary fence of the CMYC on the vacant land located between CMYC and MLDC. The six structures on the vacant lot appear to be an in-ground pump house, pump house electric shed, two raw sewage separators, and two pre-treatment tanks. The structures would have been the primary treatment location for the waste products and waste water from the California Vocational Institute (and later the MLDC). The raw sewage would have been delivered to the primary treatment location by underground piping constructed of commonly found clay pipe, approximately 8 inches to 12 inches in diameter. Except for the pump house shed, all the structures are constructed of poured or cast concrete. They range in size from 15 to 25 feet in diameter. The small shed is of wood-frame construction and an electrical junction box is located on the south interior wall.

After receiving primary treatment at the structures located on west side of the current boundary fence at CMYC, the waste water would have been pumped by underground piping to the sewer system structures presently located within the CMYC. Here the wastewater and sewage would have been subject to secondary treatment and an aeration process including the use of sludge digesters, to process the water for injection back into the water table, and reclaim usable waste product for fertilizer. There are large cylindrical concrete structures above ground, and also underground concrete shafts located in this area. Besides the concrete structures that are directly associated with the sewer system, there are two wood-frame structures. The smaller of the buildings was used as a pump house and managers office, and still contains some pumpheads. The other building was used as a small greenhouse.



Aerial view of the sewage treatment plant located on parcel APN 3203-014-901 and on the adjoining parcel containing the Challenger Memorial Youth Center. A line has been drawn around the entire historic sewage treatment system. (The doted line is the boundary between the two parcels.) There are probably underground pipes located underground between the two aboveground areas of the sewage system. (Google view dated 2006.)



Close-up aerial view of the four tanks, in-ground pump equipment, and utility hut that comprise the sewage treatment system structures located on the proposed project site, APN 3203-014-901. (Google 2005.)



Sewage treatment structures located on the proposed project site, parcel APN 3203-014-901. Visible are are the in-ground pumping equipment and utility hut in the foreground, with three of the tanks to the side and rear. View looking east.



Sewage treatment structures located on the proposed project site, parcel APN 3203-014-901. View looking north.



Sewage treatment structures located on the proposed project site, parcel APN 3203-014-901. View looking northwest.



Sewage treatment structures located within the boundary of Challenger Memorial Youth Center. (View looking south)

B. Sections of Asphalt Pavement

The airfield at War Eagle Field was centered around two large hangars at the northwest end of the training site. A 2,400 foot long runway just south of the hangars was oriented northeast/southwest and the two 2,400 foot runways extended to the east and south away from the ramp. From a review of historic aerial photographs spanning 1944 to 2005, it appears that the MLDC has expanded to cover the area that was used as take-off and landing strips by the War Eagle Air Field. (See maps and photographs in Resources Section.) Some of the sections of the outlying areas of the airstrip pavement may be located in the proposed project area, but the sections of pavement do not form a continuous linear feature that visually resembles or represents an airfield. The sections of pavement could also have been dumped in the area during earlier construction projects.



Photograph of sections of concrete pavement located in scattered sections of the proposed project area.

C. Loading Dock

This structure, located in the southwest area of the proposed project site, outside of the eastern fenceline of MLDC, does not appear to be associated with the use of the land as an airfield. The loading dock is constructed of a ramp formed of dirt and gravel, with the front (west) wall of the ramp held in place by sections of wood utility poles and heavy metal siding. This ramp may have been created to assist in the removal of the old runway pavement, and other construction debris in the 1960s when the Tubercular Segregation Hospital and Recalcitrant Unit was built. The ramp would have been used to load waiting dump trucks from bucket loaders.



D. Runway Lights

From the website *Abandoned and Little Known Airfields*, the concrete and metal features found in the northeast area of the proposed project site have been identified as runway lights. Depending on their use (and color of lights displayed), these light fixtures would have been strategically placed either along or at the end of the runways to alert pilots performing night landings of the width, length and other details of the airfield. The lights were electrically powered either by cables run from a main power source or a remotely located power source like a battery.

The light fixtures found on the proposed project site were collected from unknown locations and left in a group. They are not connected to any power source, and their covers and bulbs have been removed. The concrete bases were most probably buried below ground level. Due to their height, they may have been located away from the runways, so as not to damage an errant airplane taking off or landing.



Displaced and damaged runway lights.

Assessment of Potential for Historic Resources

The loading dock, runway lights, and sections of pavement do not appear to have the potential for being determined as historic built-environment resources. The loading dock was most probably built after the War Eagle Air Field was closed, and served as a ramp to load dump trucks with construction debris associated with the expansion of the California Vocational Institute and later, the MLDC.

The runway lights were removed from their original location and those locations are unknown. They were most probably removed from around the War Eagle Air Field landing strips when the airstrips were replaced with the construction of new buildings on the expanding grounds of MLDC.

The sections of pavement found in the proposed project area may be remnants of the runway located farthest away from the Air Field building complex. The sections have deteriorated to the point that they no longer present a visual representation of a historic landing strip, and they no longer have the qualities of integrity such as workmanship, design, setting, feeling, and association.

In 2000, the California Department of Transportation in conjunction with JRP Historical Consulting Services produced *Water Conveyance Systems in California, Historic Context Development and Evaluation Procedures.* The document was created to assist with the surveying of water conveyance structures that were responsible for delivering fresh water to a region or community, but also to identify facilities that dealt with the reclamation of water. Early reclamation systems and prototypes that may possess distinctive engineering or construction techniques were noted as being suitable for additional study.

Well into the 1950s and 1960s, cities and towns located near large bodies of water or strong rivers were still discharging their mostly untreated sewer waste directly into the natural resources. This was a large cause of water pollution and created "dead" waterways. The practice of dumping sewage was not only harmful to the environment, but was a wasteful use of water. Leonard Metcalf and Harrison P. Eddy wrote the seminal textbooks on the "modern" treatment of sewage in 1914 with their three-volume discourse *American Sewerage Practice.* Those books were followed by *Sewerage and Sewage Disposal* in 1922. Metcalf and Eddy included in their teachings the possibilities of the reuse of wastewater, and presented the techniques for the "cleaning" of wastewater for reuse.

The water that was final product of the techniques developed in the 1920s was primarily left to drain naturally back to surrounding waterways or as groundwater. By the 1930s engineering systems were developed to drive the water, under pressure, directly back into the local water table thereby "recharging" a communities own water resource.

The aerobic sewage treatment system that was installed to serve the California Vocational Institute at Mira Loma is an excellent example of a small, self-contained sewage treatment system that was constructed to reclaim the water used in the operation of the detention facility. The raw sewage was delivered to the aerobic sewage treatment system by common clay pipe running underground from the detention facility. Once treated, the water appears to have been injected back into the water table under pressure, and also by natural filtration in the adjacent treatment lagoons. The system was put into use many years before this type of technology became adopted on a large scale by cities and towns around the country. Except for the lagoons, the system that was state of the art in the post-World War II period is intact due to its abrupt abandonment in the 1960s or 1970s when the detention and animal shelter facilities could connect to the citywide sewage system.

Determinations

The National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register) criteria were employed to evaluate the significance of the sanitary sewage treatment and water reclamation system.

To be eligible for listing in the National Register, the quality of significance in American history, architecture, archaeology, engineering, or culture must be in a district, site, building, structure, or object that possesses integrity of location, design, setting, materials, workmanship, feeling and association, and:

A. is associated with events that have made a significant contribution to the broad patterns of our history; or

B. is associated with the lives of persons significant in our past; or

C. embodies the distinctive characteristics of a type, period, or method of construction or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. yields, or may be likely to yield, information important to prehistory or history.

A property eligible for listing in the National Register must meet one or more of the four criteria (A-D) defined above. In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing.

In addition to meeting the criteria of significance, a property must have integrity to be able to convey its historic significance. According to *National Register Bulletin 15*, within the concept of integrity, the National Register criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of these seven aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. The following is excerpted from *National Register Bulletin 15*, which provides guidance on the interpretation and application of these factors.

To be eligible for the California Register, a historic resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. 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

4. Has yielded, or may be likely to yield, information important in prehistory or history.

Based upon the pedestrian survey of the built-environment resources, and a review of the history of sanitary sewage treatment systems and water reclamation in Los Angeles County and California, the collection of buildings and structures located on the subject parcel and within the boundary of the CMYC, appear to be eligible for listing in the National Register of Historic Places and the California Register of Historical Resources.

The sewage treatment and water reclamation system is associated with community planning and development issues that came to the forefront in the early twentieth century when the results of uncontrolled dumping of waste products in rivers and oceans began to negatively affect the human settlements located in close proximity to bodies of water. It was becoming apparent that the dumping of waste was not only offensive in sight and smell, but that the untreated waste was literally killing the biosystems that were dependent on fresh water and salt water environments. Engineers specializing in water resources and sewage began to publish instructional handbooks and technical texts to assist communities on how to construct a system that would breakdown waste products that could be reused as fertilizer, and not foul the local water systems. Not too many years later, it became apparent, especially in the southwestern states, that all water should be considered a valuable resource and reused in the local community. Before water was injected back into the underground water table, "cleaned" water was sent back to open waterways, or left to evaporate.

Under Criteria A/1, the sanitary sewage treatment and water reclamation system appears eligible for listing as having contributed to the broad pattern of sewage treatment and water reclamation dating from the late 1930s to the post-World War II period. The system is particularly associated with the needs that became apparent in the southwest United States and California in particular.

The sewage treatment and water reclamation system appears to be eligible under Criteria C/3 as it presents a method of construction and technology that was not widely adopted until almost twenty years later, and on a much larger scale. The small, self-contained system is a good example of all the steps necessary to treat the water and the structures required for the process. The system also contains the

pumping equipment and support facilities necessary to maintain the water reclamation plant. However, the common utility, clay sewer piping that conveyed wastewater to the plant from the Mira Loma Detention Facility is not considered a contributing feature of the sewage treatment and water reclamation system.

The sewage treatment and water reclamation system has also retained its integrity with the qualities of location, design, setting, materials, workmanship and association.

For the purpose of this report, the sewage treatment and water reclamation system has been determined have the level of significance to be considered a historic resource.

Impacts and Proposed Mitigation

The entire sewage treatment and water reclamation system was abandoned in the late 1960s when the MLDC and animal shelter could connect directly with the local sewer system. The physical plant that served to treat the waste water for over 20 years is not able to be reused or adapted to any other purpose. It also may be harmful to the local environment as there are still some deep openings at the surface level that could cause the introduction of pollutants to the water table.

Whereas it was found significant for its design and its contribution to the history of water engineering and water reclamation at a point in time, its purpose is best served as an example of a system designed and operated in the first half of the twentieth century.

Mitigation Measure 1 (MM1): If left in place, the sewage treatment and water reclamation system should not suffer any adverse impacts from the proposed project that would affect the significance of the resource. Steps that should be taken to protect the resource are as follows:

1. It is recommended that a buffer of 30 feet be placed between the sewage treatment and water reclamation system structures and any ground-disturbing or landscaping activities. This buffer zone must be enhanced by the installation of permanent fencing to protect the structures from construction activities associated with the installation of the energy project, and future vandalism.

2. There is a possibility that a utility sewer pipe that delivered the raw sewage to the wastewater treatment system, from what is now known as the Mira Loma Detention Center, still exists, and that it may still be connected to the wastewater treatment system. Such a pipe, if it exists, would not be considered part of the historic sewage treatment and water reclamation system structures because it is a common clay pipe, not unique to this historic resource. If such a sewer delivery pipe exists within the project site and is connected to the sewage treatment and water reclamation system, it may be cut and removed from the project site as required for construction, provided any ground disturbance on the project site is at least 30 feet away from the sewage treatment and water reclamation system, outside of the buffer zone.

With the implementation of this mitigation measure any impact to the historic resource would be reduced to less than significant level.

Mitigation Measure 2 (MM2): If the proposed project will result in the demolition of any of the six structures associated with the sewage treatment and water reclamation system located in the APE, this will result in substantial adverse effect to the resource and the significance of the system will be materially impaired.

The demolition of the sewage treatment and water reclamation system can be reduced to a level of less than significant impact by the implementation of a mitigation measure which will document the history of early sewage treatment and water reclamation system of the type found in the project area, and the physical properties of the system. The proposed mitigation measure is as follows:

The project proponent will be required to prepare a Historic American Engineering Survey (HAER) document to create a comprehensive understanding of the resource. The HAER document will consist of the following:

1. All the buildings and structures of the sewage treatment and water reclamation system should be photodocumented by a professional photographer familiar with presenting the correct spatial relationship of each individual structure of the resource, and of the resources context to the surrounding landscape. Digital color photographs are recommended with a representative sampling of photographs developed on paper to at least 5" x 7" photographs.
2. Interpretive drawings of the layout and interrelationship of all the buildings and structures of the system (all those above and belowground) will be created to document the physical properties of the system's design and construction.
3. A written history of the system is to be prepared. Sources investigated should include, but are not limited to the Los Angeles County Department of Water and Power, the Los Angeles County Department of Corrections, the City of Lancaster Public Works Department, and the Water Resources Institute at California State University-San Bernardino.
4. At least two complete copies of the document will be prepared. One will be delivered to the Local History Department at the Lancaster Public Library; the other will be delivered to the Water Resources Institute at California State University-San Bernardino.

If the proposed mitigation measure is followed, the sewage treatment and water reclamation system shall be considered mitigated to a level of less than a significant impact on the historic resource.

Future Recommendations

The six structures related to the sewage treatment and water reclamation system that are located in the proposed APE are directly associated with the buildings and structures of the sewage treatment and water reclamation system within the fenced boundary of CMYC. Any direct impacts, including demolition or alteration, to the structures in either location will result in a significant impact to a historic resource. If CMYC should desire to remove any or all of the sewage treatment system structures on its grounds, the same mitigation measures as prescribed for the structures in the APE should apply.

Only two buildings related to the War Eagle Air Field and Flight Training School have been evaluated for significance as historic resources. As the original buildings and structures are over 50 years old, an evaluation by an Architectural Historian meeting the professional standard should be performed to inspect and evaluate the buildings if a proposed undertaking will demolish or materially alter in an adverse manner those physical characteristics of an historical resource that convey its significance. Potential impacts to the potential historic resources could also include structural or physical damage caused by heavy construction ground vibrations.

We hope the information within this letter will prove to be helpful as you perform the due diligence process. Please do not hesitate to contact me if you have any questions.

Sincerely,



Pamela Daly, M.S.H.P.
Principal - Architectural Historian
Attached: California Department of Parks and Recreation (DPR) inventory forms

Resources

Boston Water and Sewer Commission: Sewer History http://www.bwsc.org

Esperanza School 1934 and 1951, U.S.G.S. topographic maps. California State University – Chico, California historic topographic map collection:
http://cricket.csuchico.edu/maps/topo_search.html

Foundation for Water Research: Sewage Treatment http://www.euwfd.com

Freeman, Paul. Abandoned and Little-Known Airfields: California.
http://www.members.tripod.com/airfields_freeman/CA/Airfields_CA_PalmdaleS.htm#wareagle

Historic aerial photographs of proposed project area: http://www.historicaerials.com

History of Sanitary Sewers http://www.sewerhistory.org/

Los Angeles County Tax Assessor parcel map for APN 3203-014-901
http://assessor.lacounty.gov

Los Angeles County Tax Assessor parcel index map with APN 3201-014-901
http://assessor.lacounty.gov

Los Angeles County Health Services, High Desert Health Systems: www.ladhs.org

Metcalf, Leonard and Harrison P. Eddy. *History of Sewerage and Sewage Disposal*. New York: McGraw-Hill Books, 1922. http://books.google.com/books

National Park Service Digital Library: National Register of Historic Places Nomination Records
http://nrhp.focus.nps.gov

ProQuest Historical Newspapers Los Angeles Times:

There Are Better Places for Sewage Than the Ocean, November 13, 1927.
Pomona Sued by Inventor of Sewage Plant, April 20, 1927.
Water Can Be Saved – Sewage Waste Shown to be Needless, May 10, 1931.
Pilot Training, January 2, 1943.
Two Air Forces Generals Visit Facilities Here, April 8, 1944.
U.S. Flying Cade Program Being Drastically Reduced, May 6, 1944.
Government Withdraws Offer to Sell Cal-Aero, August 8, 1945.
Mira Loma Flight Academy Shutdown Told, August 8, 1945.
*Lancaster Gets State Schoo*l, November 2, 1945.
Youth Reclaiming Stressed by New State Institution, April 15, 1946.
Sewage Plan Offers Water, August 30, 1946.
County Buys Lancaster Airport for $1, October 1, 1947.
County Will Transfer Crowded Prisoners, April 9, 1953.
New Mira Loma Facility for TB Control Opened, May 21, 1954.
Transfer of 600 County Prisoners Starts Soon, September 7, 1953.
Reclaiming Waste Water Held Vital to Southwest, July 25, 1955.
Urgent Need for Juvenile Facilities, April 7, 1957.
New Security Barracks Set at Mira Loma, September 8, 1957.

Sheriff's TB Hospital Plans Given Approval, January 21, 1959.
Mira Loma Medical Unit Near Completion, August 6, 1961.
$62 Million Bonds for County Buildings Urged, July 11, 1945.
Lancaster Pins High Hopes on Reclamation of Water, June 21, 1967.

Sewage Treatment – Waste Water Treatment http://sewagetreatment.us

Society for Industrial Archeology http://www.siahq.org

The California State Military Museum, Historic California Posts, War Eagle Field: www.militarymuseum.org/WarEagleField.html

Wikipedia: Sewage Treatment http://en.wikipedia.org

Historic Aerial Photographs

A. Section 14



War Eagle Field circa 1943/44 (Stearman bi-planes are parked by the hangars).
Photo is from Parsons *Phase I Environmental Site Assessment 2010*.



Aerial view of Section 14 in 1953.



Aerial view of Section 14 in 1965.



Aerial view of Section 14 in 2005. Comparing this photograph to the1953 photograph it is possible to see how much of the old War Eagle Air Field runways have been replaced with buildings and associated uses by MLDC and the High Desert Hospital complex.

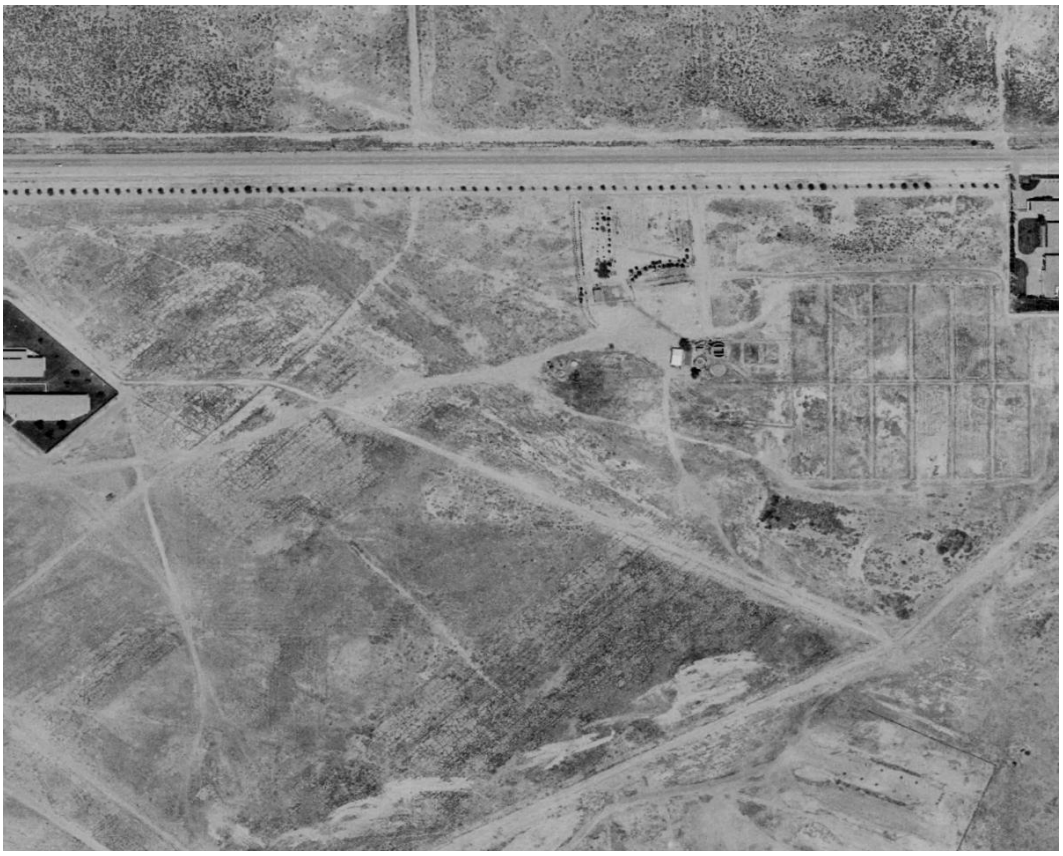
B. Sewage Treatment System – aerial views



1953

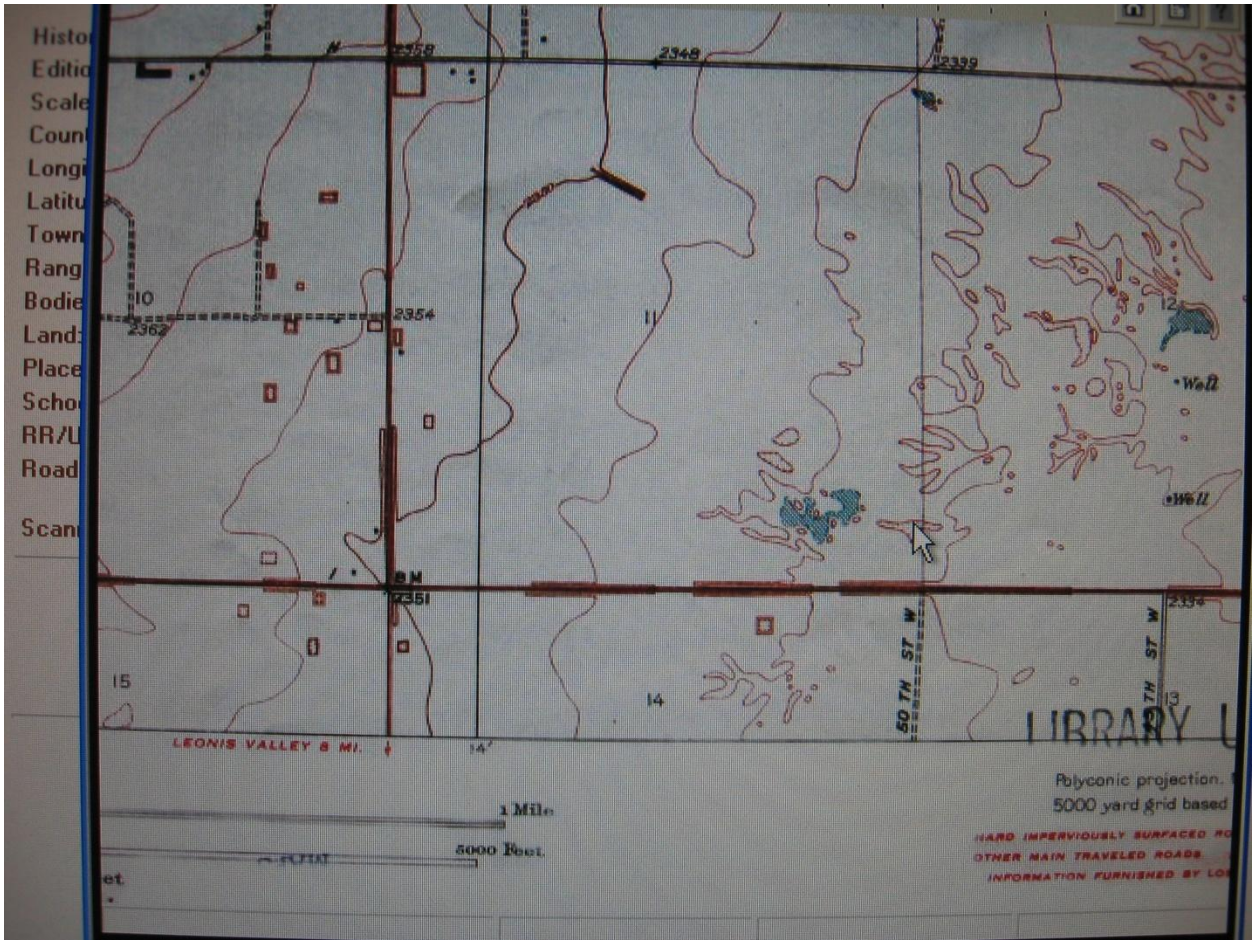


1959

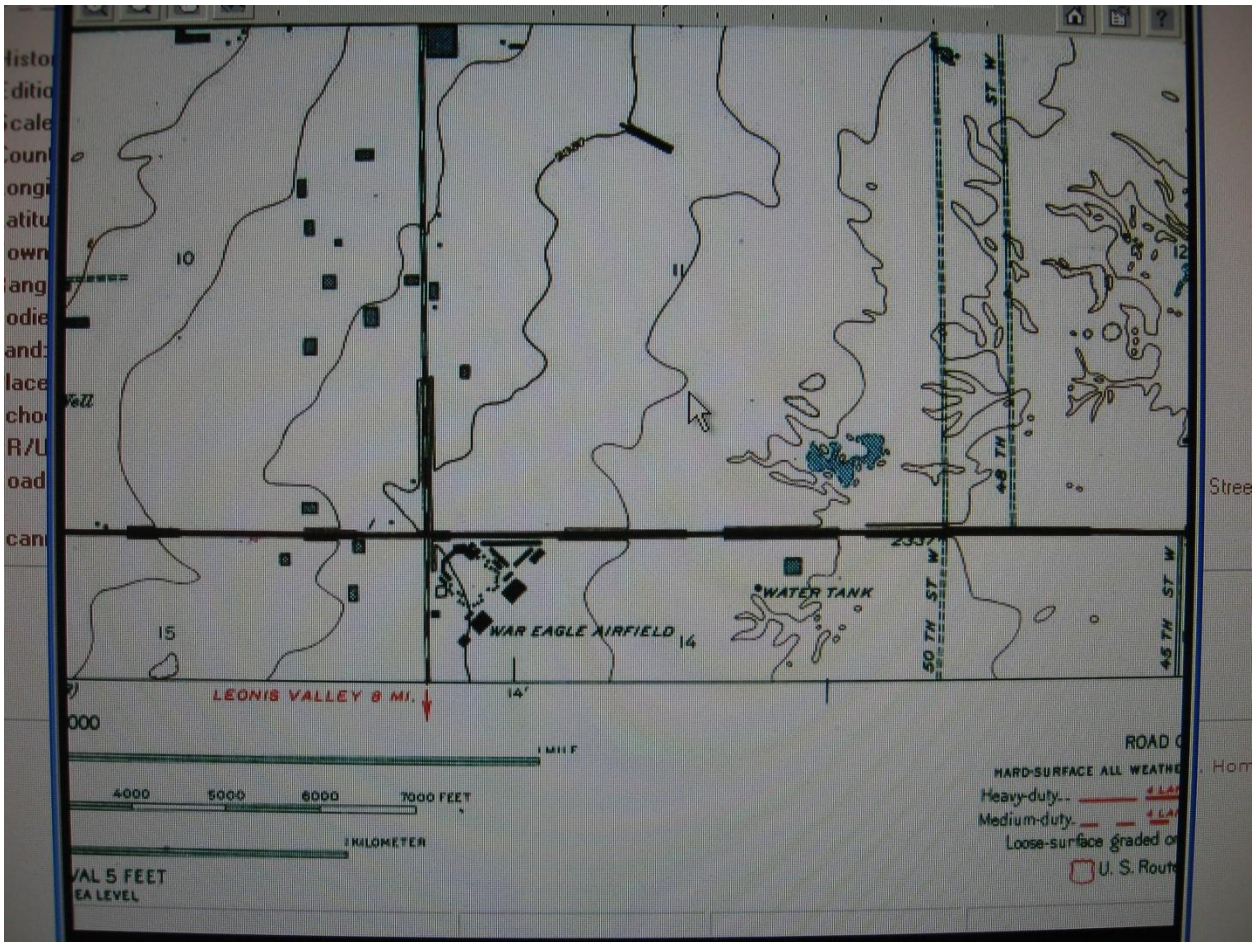


1971

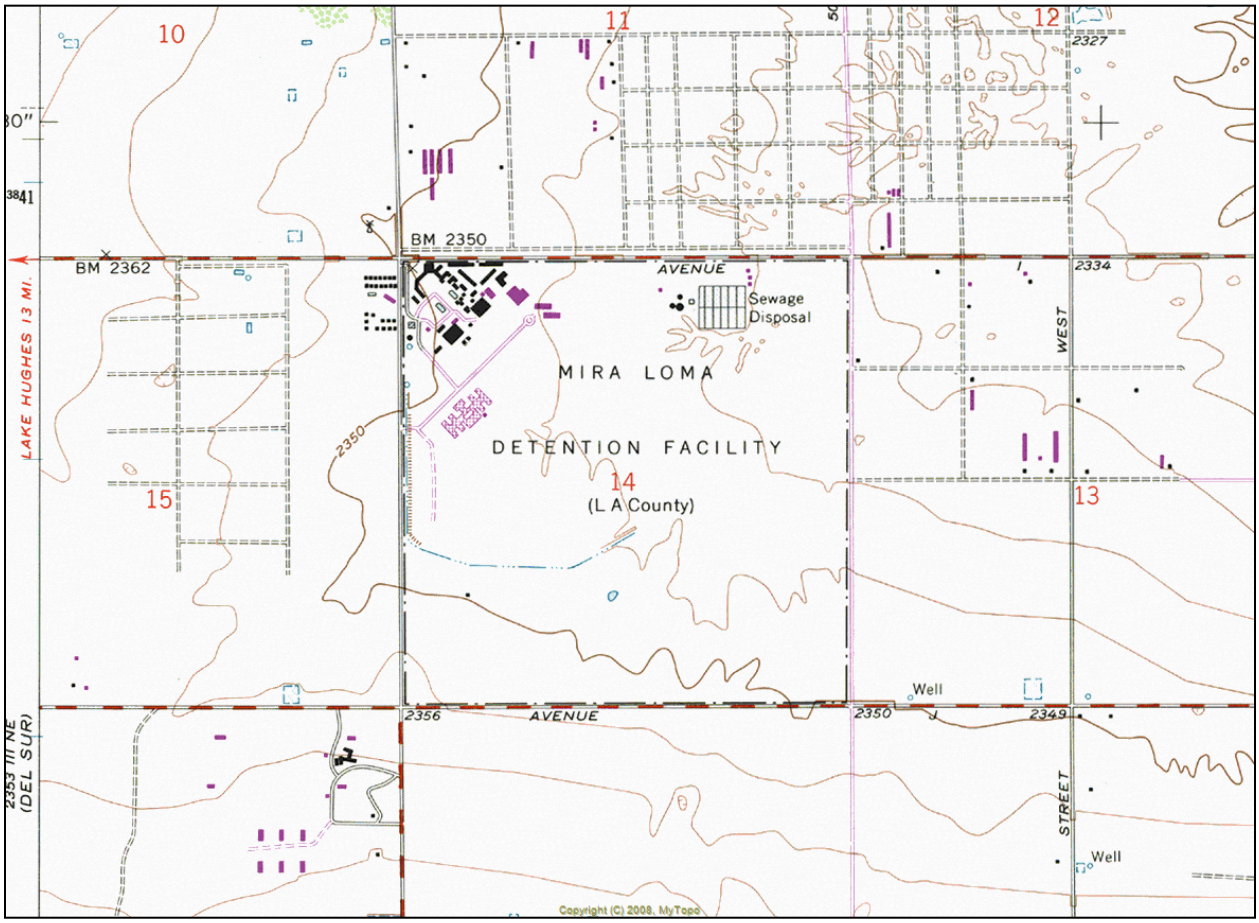
Historic and current topographic maps



U.S.G.S. Topographic map. Esperanza School, 1934. The northern one-third of Section 14 shows only the presence of two small, man-made, rectangular shaped, water holding ponds. (California State University – Chico, Collection of Historic Topographic Maps.)



U.S.G.S. Topographic map, Esperanza School, 1951. The northern one-third of Section 14 shows the War Eagle Airfield, a water tank, and one small, man-made, rectangular shaped, water holding pond.
(California State University – Chico, Collection of Historic Topographic Maps.)



Lancaster West U.S.G.S. Topographic Map. Created in 1958/ Revised in1974 (current map).
Buildings and structures dating from 1958 are in black.
Buildings and structures constructed between 1958 and 1974 are shaded purple.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code | Reviewer | Date

***Resource Name or #:** Mira Loma Detention Facility Sewage Treatment System

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ■**Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Lancaster West **Date:** 1958/1974 **T** 7N; **R** 13 W; NW ¼ **of NE ¼ of Sec 14 ;** S.B. **B.M.**

c. Address: (approximately) 5400 West Avenue I City: Lancaster Zip: 93536

d. UTM: Zone: 11; 0387747 mE/ 3840730 mN (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 2341 feet

The subject property consists of approximately 65 acres and is located on the north half of Section 14. The parcel contains vacant undeveloped land located between the County of Los Angeles Mira Loma Detention Center to the west, the Challenger Memorial Youth Center (CMYC) to the east, and the California State Prison – Los Angeles County to the south.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The buildings and structures of the sewage treatment and water reclamation system are located in the northwest quarter, of the northeast quarter, of Section 14. The sewage settling ponds (or lagoons) were located to the east of the sewage treatment system on the land where the CMYC is now located. Six of the structures associated with the sewage treatment system are separated by the west boundary fence of the CMYC on the vacant land located between CMYC and MLDC. The six structures on the vacant lot appear to be an in-ground pump house, pump house electric shed, two raw sewage separators, and two pre-treatment tanks. (See Continuation Sheet for additional text.)

***P3b. Resource Attributes:** (List attributes and codes) AH – 16 (Other: Sewage Treatment Facility), HP- 11 (Engineering Structure).

***P4. Resources Present:** □Building ■Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)



P5b. Description of Photo: The six structures of the sewer treatment system located on the vacant lot just to the west of the Challenger Memorial Youth Facility, view looking east. May 26, 2010.

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both

Circa 1946; based on historic aerial photographs and the construction of the Mira Loma Detention Facility.

***P7. Owner and Address:**

County of Los Angeles

***P8. Recorded by:**

Pamela Daly, M.S.H.P.
Daly & Associates
4486 University Avenue
Riverside, CA 92501

***P9. Date Recorded:** May 1, 2011.

***P10. Survey Type:** (Describe)

CEQA Historic Resource Evaluation

***P11. Report Citation**: Daly, Pamela. *Phase I Evaluation of Built-Environment Resources on the County of Los Angeles Solar Energy Project Site, Lancaster, California*, May 2011.

***Attachments:** ☐NONE ■Location Map ☐Sketch 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):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** : 3S

***Resource Name or #:** Mira Loma Detention Facility Sewage Treatment System

B1. Historic Name: California Vocational Institute Sewage Treatment System
B2. Common Name: Unknown
B3. Original Use: Wastewater treatment system. B4. Present Use: Abandoned.

***B5. Architectural Style:** 1940s era construction style.

***B6. Construction History:** (Construction date, alterations, and date of alterations)

A sewage treatment system that appears to have been constructed in 1946 at the time the California Vocational Institute for Boys was opened on the site of the old Mira Loma Flight Academy and War Eagle Airfield. The sewer treatment system was later abandoned in the late 1960s when the City of Lancaster and the County of Los Angeles created a water reclamation system. Aerial photographs from 1953 show the sewage treatment system and associated lagoons have been constructed on the subject parcel.

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:** The entire sewage treatment system is located on adjoining properties, and is comprised of over 10 in-ground and above-ground features.

B9a. Architect: None b. Builder: Unknown

***B10. Significance:** Theme: Sewage Treatment System **Area:** Los Angeles County
Period of Significance: 1940 - 1960 **Property Type:** Public Utility **Applicable Criteria:** NR/CR

In 2000, the California Department of Transportation in conjunction with JRP Historical Consulting Services produced *Water Conveyance Systems in California, Historic Context Development and Evaluation Procedures.* The document was created to assist with the surveying of water conveyance structures that were responsible for delivering fresh water to a region or community, but also to identify facilities that dealt with the reclamation of water. Early reclamation systems and prototypes that may possess distinctive engineering or construction techniques were noted as being suitable for additional study.

Well into the 1950s and 1960s, cities and towns located near large bodies of water or strong rivers were still discharging their mostly untreated sewer waste directly into the natural resources. This was a large cause of water pollution and created "dead" waterways. The practice of dumping sewage was not only harmful to the environment, but was a wasteful use of water. (See Continuation Sheet for additional text.)

B11. Additional Resource Attributes: (List attributes and codes) None.

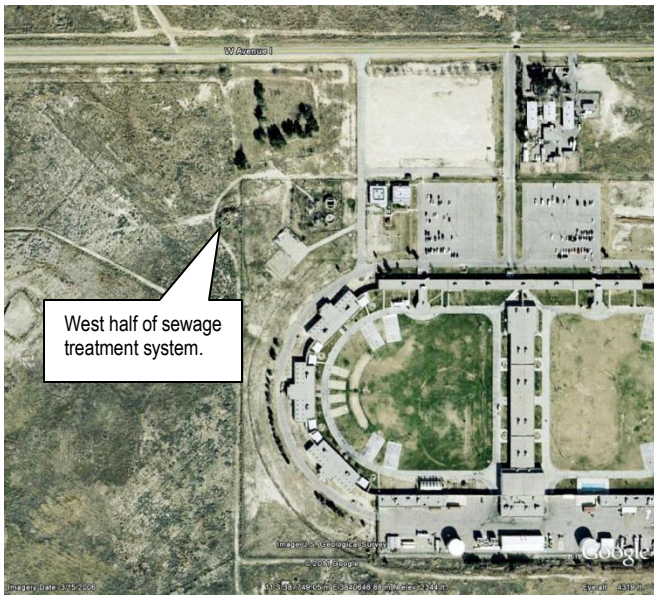
***B12. References:**

See corresponding report for listing of all references and sources of information regarding this project.

B13. Remarks:

***B14. Evaluator:** Pamela Daly, M.S.H.P.

***Date of Evaluation:** May 2, 2011



(This space reserved for official comments.)

*Required information

*Recorded by: Pamela Daly, M.S.H.P. *Date: May 1, 2011 ■Continuation ☐ Update

P.3a.: Description

The structures located on the proposed project site would have been the primary treatment location for the waste products and waste water from the California Vocational Institute (and later the MLDC). The raw sewage would have been delivered to the primary treatment location by underground piping constructed of commonly found clay pipe, approximately 8 inches to 12 inches in diameter. Except for the pump house shed, all the structures are constructed of poured or cast concrete. They range in size from 15 to 25 feet in diameter. The small shed is of wood-frame construction and an electrical junction box is located on the south interior wall.

After receiving primary treatment at the structures located on west side of the current boundary fence at CMYC, the waste water would have been pumped by underground piping to the sewer system structures presently located within the CMYC. Here the wastewater and sewage would have been subject to secondary treatment and an aeration process including the use of sludge digesters, to process the water for injection back into the water table, and reclaim usable waste product for fertilizer. There are large cylindrical concrete structures above ground, and also underground concrete shafts located in this area. Besides the concrete structures that are directly associated with the sewer system, there are two wood-frame structures. The smaller of the buildings was used as a pump house and managers office, and still contains some pumpheads. The other building was used as a small greenhouse.

B.10.: Significance

The water that was final product of the techniques developed in the 1920s was primarily left to drain naturally back to surrounding waterways or as groundwater. By the 1930s engineering systems were developed to drive the water, under pressure, directly back into the local water table thereby "recharging" a communities own water resource.

The aerobic sewage treatment system that was installed to serve the California Vocational Institute at Mira Loma is an excellent example of a small, self-contained sewage treatment system that was constructed to reclaim the water used in the operation of the detention facility. The raw sewage was delivered to the aerobic sewage treatment system by common clay pipe running underground from the detention facility. Once treated, the water appears to have been injected back into the water table under pressure, and also by natural filtration in the adjacent treatment lagoons. The system was put into use many years before this type of technology became adopted on a large scale by cities and towns around the country. Except for the lagoons, the system that was state of the art in the post-World War II period is intact due to its abrupt abandonment in the 1960s or 1970s when the detention and animal shelter facilities could connect to the citywide sewage system.

Under Criteria A/1, the sanitary sewage treatment and water reclamation system appears eligible for listing as having contributed to the broad pattern of sewage treatment and water reclamation dating from the late 1930s to the post-World War II period. The system is particularly associated with the needs that became apparent in the southwest United States and California in particular.

The sewage treatment and water reclamation system appears to be eligible under Criteria C/3 as it presents a method of construction and technology that was not widely adopted until almost twenty years later, and on a much larger scale. The small, self-contained system is a good example of all the steps necessary to treat the water and the structures required for the process. The system also contains the pumping equipment and support facilities necessary to maintain the water reclamation plant. However, the common utility, clay sewer piping that conveyed wastewater to the plant from the Mira Loma Detention Facility is not considered a contributing feature of the sewage treatment and water reclamation system.

The sewage treatment and water reclamation system has also retained its integrity with the qualities of location, design, setting, materials, workmanship and association. For the purpose of this report, the sewage treatment and water reclamation system has been determined have the level of significance to be considered a historic resource.

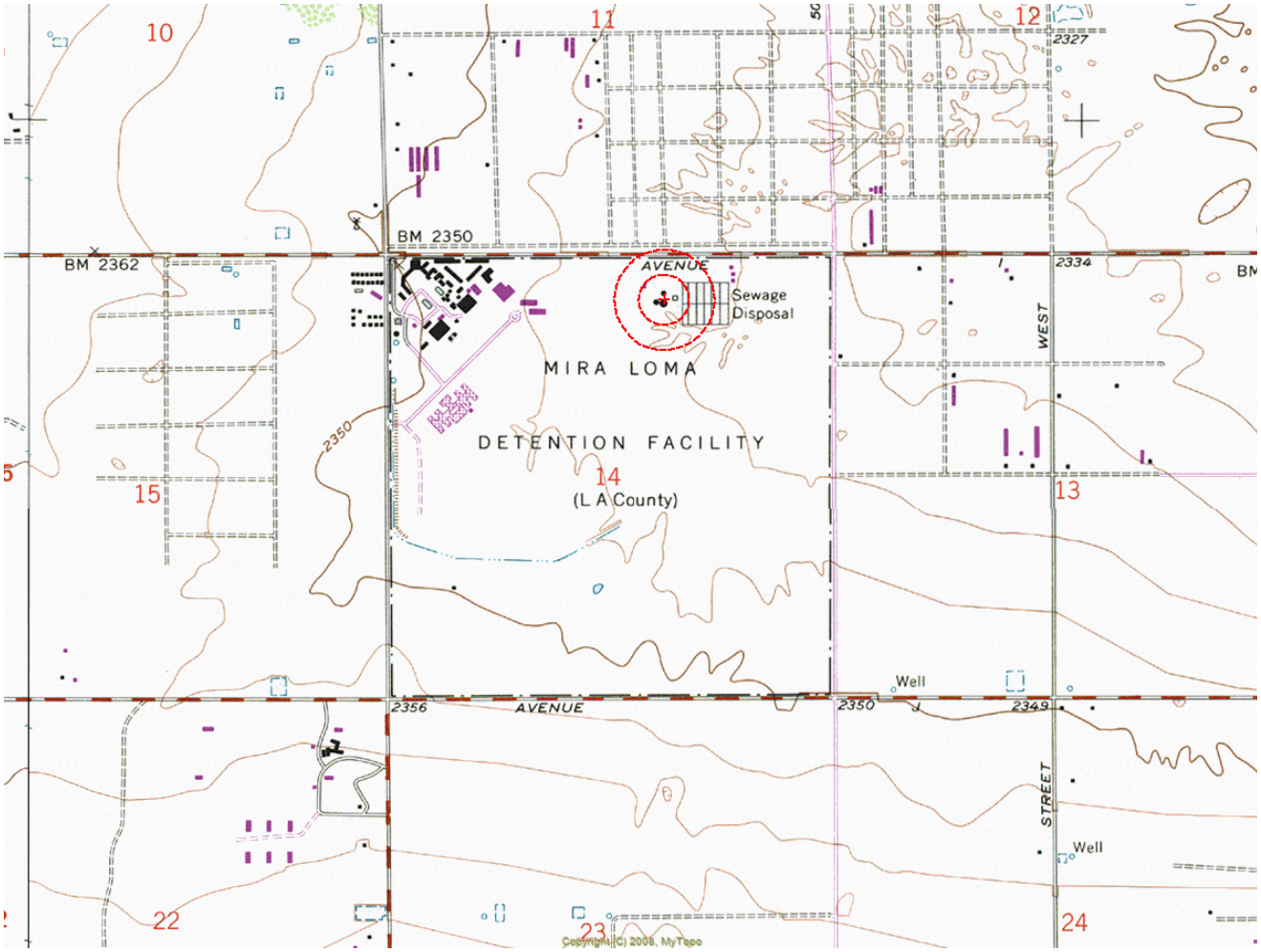
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

Page 3 **of** 3 ***Resource Name or #:** Mira Loma Detention Facility Sewage Treatment System

***Map Name:** Lancaster West ***Scale:** 1:24,000 ***Date of Map:** 1958/1974

DPR 523J (1/95) ***Required information**



APPENDIX C

GEOTECHNICAL ENGINEERING
AND
ENGINEERING GEOLOGIC EVALUATION REPORT

TWINING
LABORATORIES

Geotechnical Engineering and Engineering Geologic Evaluation Report

Solar Energy Project
45100 60th Street West
Lancaster, California

Prepared for:
County of Los Angeles, Department of Public Works
900 South Fremont Street
Alhambra, California 91803

February 21, 2011

Project No.: 110045.1

February 21, 2011
Project No. 110045.1

Mr. Miguel Loayza, Project Manager
County of Los Angeles, Dept. of Public Works
900 South Fremont Street
Alhambra, California 91803

Subject: Geotechnical Engineering and Engineering Geologic Evaluation Report
Solar Energy Project
45100 60th Street West
Lancaster, California

TWINING LABORATORIES

OFFICE
562.426.3355

FAX
562.426.6424

WEB
twininglabs.com

Dear Mr. Loayza:

In accordance with your request and authorization, we are presenting the results of our geotechnical engineering and engineering geologic evaluation for the above-referenced project in Lancaster, California. The purpose of this investigation has been to evaluate the subsurface conditions at the site and provide recommendations for the construction of a proposed solar farm.

Please note that the recommendations presented within the report are based on assumptions stated herein. Should conditions encountered during development differ from those assumed in our analyses, or should the proposed development change, our recommendations may need to be modified accordingly. This report may be submitted to the County of Los Angeles, Geotechnical and Materials Division as part of the process of obtaining development permits for the project.

We appreciate the opportunity to be of service on this project. Should you have any questions regarding this report or if we can be of further service, please do not hesitate to contact the undersigned.

Respectfully submitted,
TWINING, INC.

REGISTERED PROFESSIONAL ENGINEER
PAUL C. SOLTIS
NO. 2606
EXP. 12/31/12
GEOTECHNICAL
STATE OF CALIFORNIA

Paul Soltis, R.C.E. 56140 , G.E. 2606
Project Engineer

REGISTERED PROFESSIONAL ENGINEER
STEVE PITZER
C 72208
EXP. 6/30/12
CIVIL
STATE OF CALIFORNIA

Steve Pitzer, R.C.E 72208
Project Engineer

21 Feb 11

Nicholas J. Novoa
Senior Staff Geologist

NJN/SWP/ps
Distribution: (5) Addressee

TABLE OF CONTENTS

Page

1. INTRODUCTION **1**

2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT **1**

3. SCOPE OF SERVICES **1**

4. FIELD EXPLORATIONS AND LABORATORY TESTING **2**

4.1. FIELD EXPLORATIONS **2**
4.2. LABORATORY TESTING **2**

5. REGIONAL GEOLOGIC SETTING AND SUBSURFACE CONDITIONS **3**

5.1. EARTH MATERIALS **3**
5.1.1. Fill 3
5.1.2. Alluvium 4
5.2. GROUNDWATER **4**
5.3. GEOLOGIC HAZARDS **4**
5.3.1. Seismic Hazard Zones 4
5.3.2. Flood Hazard 4

6. ENGINEERING SEISMOLOGY AND DESIGN **4**

6.1. ACTIVE FAULTING **5**
6.2. HISTORICAL SEISMICITY **5**
6.3. CODE BASED GEOTECHNICAL PARAMETERS FOR EARTHQUAKE DESIGN **5**
6.4. LIQUEFACTION AND SEISMIC SETTLEMENT POTENTIAL **6**

7. DESIGN RECOMMENDATIONS **7**

7.1. GENERAL **7**
7.2. SITE PREPARATION **7**
7.3. FOUNDATIONS **7**
7.3.1. Allowable Soil Bearing Pressure and Estimated Static Settlement 8
7.3.2. Lateral Resistance for Shallow Foundations 8
7.4. PRELIMINARY PAVEMENT RECOMMENDATIONS **8**
7.4.1. Flexible Pavements 8
7.4.2. Rigid Pavement 9
7.5. TEMPORARY EXCAVATIONS **9**
7.6. DRAINAGE CONTROL **9**
7.7. EXPANSIVE SOILS **10**
7.8. SOIL CORROSION **10**
7.8.1. Reinforced Concrete 10
7.8.2. Metallic 10

8. GENERAL SITE GRADING RECOMMENDATIONS **10**

9. DESIGN REVIEW AND CONSTRUCTION MONITORING **12**

9.1. PLANS AND SPECIFICATIONS **12**
9.2. CONSTRUCTION MONITORING **12**

10. LIMITATIONS **12**

11. SELECTED REFERENCES **14**

Figures

Figure 1 – Site Location Map
Figure 2 – Boring Location Map
Figure 3 – Regional Geologic Map
Figure 4 – Seismic Hazards Map
Figure 5 – Fault Location Map
Figure 6 – Historical Seismicity, 1800-1999

Appendices

Appendix A – Field Exploration
Appendix B – Laboratory Test Results
Appendix C – Liquefaction Analysis

1. INTRODUCTION

This report presents the results of our geotechnical engineering and engineering geologic evaluation performed at the property located at 45100 60th Street West in the City of Lancaster, California (Figure 1). The purpose of this study has been to evaluate the subsurface conditions at the site and to provide geotechnical recommendations relative to the design and construction of the proposed solar farm.

2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The project site consists of a vacant hexagonal-shaped, approximately 65-acre lot. The lot is bounded by Avenue I to the north, the Los Angeles County Challenger Memorial Center to the east, the California State Prison of Los Angeles County to the south, and the Mira Loma Detention Center to the west. The site is currently vacant and overgrown with grass and tumbleweeds. However, during our field investigation, it appeared portions of the site had previously been paved. Topography across the site is relatively flat with small variations, less than 10 feet, due to recent alluvium deposits across the site and excavations apparently for drainage ditches.

Plans for the proposed improvements at the site have not been made available for our review. Based upon our correspondence with you, it is our understanding the County is currently contemplating using Sunpower T20 Tracker Solar Panels at the site. The T20 Tracker utilizes precast concrete foundations for its support. Anticipated structural loads for foundation design were not available at the time of this report. We have assumed a maximum footing load of up to 5 kips in our analyses for allowable bearing pressure and static settlement. We should be retained to perform additional analyses should the actual design loads be greater than our assumed values. We have assumed that additional improvements at the site will consist of access roads and the installation of utility lines associated with the solar farm.

3. SCOPE OF SERVICES

Our scope of services for this project consisted of the following:

- We reviewed readily available background data, including in-house geotechnical data, geotechnical literature, geologic maps, topographic maps, and seismic hazard maps and literature relevant to the subject site.

- We performed a geotechnical site reconnaissance to observe the general conditions at the site and to select boring locations. After boring locations were delineated, Underground Service Alert was notified of the planned locations a minimum of 48 hours prior to excavation.

- We performed a subsurface evaluation, including the excavation, logging, and sampling of fourteen 8-inch-diameter exploratory borings. The borings were advanced to depths ranging from approximately 21 to 51½ feet below the existing grades. Samples of earth materials were obtained from the borings and transported to our in-house laboratory for observation and testing.

- We performed laboratory testing on selected samples of earth materials in order to evaluate the geotechnical engineering properties of the on-site soils. Laboratory tests included in-situ moisture content and dry density, no. 200 wash sieve, grain size distribution including hydrometer, Atterberg limits, expansion index, R-value, consolidation, corrosion potential, maximum dry density-optimum moisture content, and direct shear.

- Compilation and engineering analyses of the data collected from our site reconnaissance, subsurface evaluation, and laboratory testing. Specifically, our analyses included the following:
  - Evaluation of general subsurface conditions and description of types, distribution, and engineering characteristics of subsurface materials;
  - Evaluation of geologic hazards and engineering seismology, including evaluation of fault rupture hazard, seismic shaking hazard, liquefaction and seismic settlement potential;
  - Evaluation of seismic design parameters in accordance with the 2008 County of Los Angeles Building Code;
  - Evaluation of project feasibility and suitability of on-site soils for foundation support; and
  - Preparation of recommendations for site grading and subgrade preparation;
  - Evaluation of foundation design parameters including allowable bearing capacity for precast foundations, estimated settlement, lateral earth pressures, and lateral resistance;
  - Provision of recommendations for pavement construction; and
  - Evaluation of the potential for the on-site materials to corrode buried concrete and steel objects.
- Preparation of this report that presents the work performed and the data acquired; and that summarizes our conclusions and geotechnical recommendations for the design and construction of the proposed development.

4. FIELD EXPLORATIONS AND LABORATORY TESTING

4.1. Field Explorations

The subsurface conditions were evaluated by advancing fourteen 8-inch-diameter, hollow-stem-auger borings across the subject site. The approximate locations of the exploratory borings are shown in Figure 2, Boring Location Map. Details of the soil exploration and the logs of borings are presented in Appendix A.

The borings were advanced to depths of approximately 21 to 51½ feet below the existing grades using a CME-75 truck-mounted drill rig. Driven samples of the soil were obtained using a standard penetration test (SPT) sampler and a modified California split spoon sampler. The samplers were driven using a 140-pound, automatic-drop hammer falling approximately 30 inches. The blow counts were recorded, and the materials encountered in the borings were logged by our field personnel. The recorded blow counts are included on the boring logs in Appendix A. Upon completion of drilling, the borings were backfilled by the drilling subcontractor using cuttings derived from the excavations.

4.2. Laboratory Testing

Laboratory tests were performed on selected samples obtained from the borings in order to aid in the soil classification and to evaluate the engineering properties of the foundation soils. The following tests were performed:

- In-situ moisture and density;
- Maximum dry density-optimum moisture content:
- No. 200 wash sieve;
- Grain size distribution including hydrometer;
- Atterberg Limits;
- Expansion index;
- R-value;
- Consolidation;
- Corrosivity; and
- Direct shear.

The moisture content and density data are presented on the boring logs in Appendix A. The remaining laboratory test results are presented in Appendix B. Details of the laboratory testing program are also included in Appendix B.

5. REGIONAL GEOLOGIC SETTING AND SUBSURFACE CONDITIONS

The project site is located in the Antelope Valley at the western portion of the Mojave Desert geomorphic province. The Mojave Desert is bounded by the San Andreas Fault to the southwest and the Garlock fault zones to the north (Dibblee, Jr., 1967). The Mojave Desert has no defined eastern limit. There are many major, but discontinuous faults within the province (Dibblee, Jr., 1967). Rocks in the western portion of the Mojave Desert can generally be grouped as pre-Tertiary crystalline rocks, Tertiary sedimentary and volcanic rocks, and Quaternary sediments and local basalt flows (Dibblee, Jr., 1967).

The United States Geological Survey and California Geological Survey have prepared various maps for the United States and California. Many of these maps are prepared as 7.5 minute quadrangles. This project site is located in the Lancaster West 7.5 minute quadrangle. According to the California Geological Survey (2005a), nearly the entire quadrangle is covered by Quaternary alluvial deposits.

According to the Quarternary Geologic Map of the Lancaster West 7.5 minute Quadrangle, (California Department of Conservation, California Geological Survey, 2005a) the site is underlain by Quaternary playa deposits (Qpl) and typically consist of compact lacustrine silt and clay with minor loose, well-sorted sand and fine gravel.

The Quarternary Geologic Map of the Lancaster West 7.5 minute Quadrangle (California Department of Conservation, California Geological Survey, 2005a) is reproduced as Figure 3, Regional Geologic Map.

5.1. Earth Materials

Earth materials encountered during the subsurface exploration consist of fill and alluvial deposits. Generalized descriptions of these units are provided below. Detailed descriptions of the earth materials encountered in the exploratory borings are presented in Appendix A, Field Exploration.

5.1.1. Fill

Fill most likely associated with previous minor grading of the site was encountered in five of the exploratory borings excavated at the project site. The fill generally consists of yellow brown to orange brown to dark brown, moist, silt. The fill was up to approximately 1-foot thick.

5.1.2. Alluvium

Alluvium was encountered in each of the exploratory borings excavated at the project site. The alluvium generally consists of yellow brown to orange brown to brown, medium dense to very dense, poorly graded sand with varying amounts of clay and silt and yellow brown to orange brown to brown, medium stiff to hard, silt and lean clay with varying amounts of sand. The alluvium extended to the total depth of each exploratory boring.

5.2. Groundwater

Groundwater was not encountered within any of our exploratory excavations. According to mapping published in the Seismic Hazard Zone Report for the Lancaster West Quadrangle by the California Department of Conservation, California Geological Survey (2005a), the historical high groundwater level is greater than 100 feet below the ground level. According to the seismic hazard zone report, Caltrans encountered groundwater at levels less than 40 feet below the ground surface in nearby areas during the 1960's and 1970's; however, recent data shows that water levels have dropped significantly since that time. Groundwater conditions may vary across the site due to stratigraphic and hydrologic conditions, and may change over time as a consequence of seasonal and meterological fluctuations, or of activities by humans at this and nearby sites.

5.3. Geologic Hazards

5.3.1. Seismic Hazard Zones

As part of our study, we performed a limited evaluation of possible geologic hazards at the site. Based on our review of the State of California Official Map of Seismic Hazard Zones for the Lancaster West Quadrangle (California Department of Conservation, California Geological Survey, 2005b), the site is not located within a Zone of Required Investigation for Earthquake-Induced Landslides, however, the project site is located within a Zone of Required Investigation for Liquefaction. A portion of this map has been reproduced as Figure 4, Seismic Hazards Map.

Our observations indicate that the relief across the site is relatively level. On this basis, it is our opinion that the potential for an earthquake-induced landslide to occur at the site is remote.

Our opinion regarding the potential for liquefaction is presented below in Section 6.4, Liquefaction and Seismic Settlement Potenital.

5.3.2. Flood Hazard

The County of Los Angeles has prepared a flood zone map as part of the 2008 Draft General Plan. According to the flood zone map, the project site is located in an area within the 500-year flood plain.

6. ENGINEERING SEISMOLOGY AND DESIGN

The southern California region is known to be seismically active. Earthquakes occurring within approximately 60 miles of the site are generally capable of generating ground shaking of engineering significance to the proposed construction. The project area is located in the general proximity of several

active and potentially active faults (Figure 5). Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years).

6.1. Active Faulting

Official Maps of Earthquake Fault Zones were reviewed to evaluate the location of the project site relative to known active fault zones. Alquist-Priolo Earthquake Fault Zones (known as Special Studies Zones prior to 1994) have been established in accordance with the Alquist-Priolo Special Studies Zones Act of 1972, as amended. The act directs the State Geologist to delineate the regulatory zones that encompass the surface traces of active faults that exhibit a potential for future surface fault rupture. The purpose of the act is to regulate development near active faults in order to mitigate the hazard of surface fault rupture.

The project site is located on the Lancaster West Quadrangle. The Lancaster West Quadrangle does not contain any delineated Earthquake Fault Zones. The closest mapped Earthquake Fault Zone is located approximately 6.2 miles southwest of the project site on the Sleep Valley Quadrangle, southwest of the Lancaster West Quadrangle.

Neither our field observations nor our review of published geologic literature indicated that the surface traces of any active faults pass through or near the site, nor do the surface traces of any known active or potentially active faults project towards the site. Therefore, the likelihood of fault rupture occurring at the site during the design life of the proposed improvements is considered to be low.

6.2. Historical Seismicity

In the absence of fault rupture, the greatest seismic hazard likely to affect the site is seismic shaking due to one or more earthquakes generated on nearby or distant active faults. The approximate locations of major faults in the region and their geographic relationship to the site are shown on Figure 5, Fault Location Map. The epicentral locations of selected historic earthquakes in southern California have been plotted by the California Division of Mines and Geology (Toppozada et al., 2000). A reproduction of this map is presented as Figure 6, Historical Seismicity, 1800-1999.

6.3. Code Based Geotechnical Parameters for Earthquake Design

The earthquake design of the project may be performed using criteria presented in the 2011 County of Los Angeles Building Code, Volume 2 of 2, Chapter 16, Section 1613. The earthquake design parameters are listed below in Table 1.

Table 1
2011 County of Los Angeles Building Code Earthquake Design Parameters

2011 L.A. County BC Earthquake Design Factor	Value
Occupancy Category	I
0.2-Second Mapped Spectral Acceleration Parameter, S_s	1.500
1-Second Mapped Spectral Acceleration Parameter, S_1	0.636
Site Class	D
Short Period Site Coefficient, F_a	1.0
1-Second Period Site Coefficient, F_v	1.5
Short Period Adjusted MCE[1] Spectral Response Acceleration Parameter, S_{MS}	1.500
1-Second Period Adjusted MCE[1] Spectral Response Acceleration Parameter, S_{M1}	0.954
Short Period Design Spectral Response Acceleration Parameter, S_{DS}	2/3 S_{MS} = 1.000
1-Second Period Design Spectral Response Acceleration Parameter, S_{D1}	2/3 S_{M1} = 0.636
Seismic Design Category	D
[1]Maximum considered earthquake	

6.4. Liquefaction and Seismic Settlement Potential

Liquefaction occurs when the pore pressures generated within a soil mass approach the effective overburden pressure. This results in a loss of strength, and the soil then possesses a certain degree of mobility sufficient to permit both horizontal and vertical movements. Liquefaction of soils may be caused by ground shaking during earthquakes. Liquefaction is generally known to occur in loose, saturated, relatively clean, fine-grained cohesionless soils at depths shallower than approximately 50 feet. Factors to consider in the evaluation of soil liquefaction potential include groundwater conditions, soil type, grain-size distribution, relative density, degree of saturation, and both the intensity and duration of ground motion.

A portion of the project site is located within a state-designated Seismic Hazard Zone for Required Investigation of Liquefaction potential. Earthquake moment magnitudes for the project site were evaluated based on values obtained from the USGS 2008 Interactive Deaggregations website (http://eqint.cr.usgs.gov/deaggint/2008/index.php). The peak ground acceleration (PGA) at the project site was also evaluated by dividing the short period design spectral response acceleration parameter, S_{DS}, by 2.5. For the purposes of our analysis, we used a moment magnitude of 7.4 and a PGA value of 0.40 g.

Our analysis indicates that there are not any zones of potentially liquefiable soil during intense shaking, due to the lack of groundwater present within the upper 50 feet of the site. Furthermore, the relatively high blow counts also negate the potential for liquefaction to occur, were groundwater to be present at the site. Liquefaction calculations are presented in Appendix C.

Seismic settlement can occur when loose to medium dense granular materials densify during seismic shaking. Seismically-induced settlement can occur in dry, unsaturated, as well as saturated soils. Based on the results of our subsurface investigation, seismic settlement up to 0.1 inches is anticipated. Seismic settlement calculations are presented in Appendix C.

7. DESIGN RECOMMENDATIONS

7.1. General

Recommendations for foundations presented herein are based on the soil conditions encountered in the soil borings. The following sections present our conclusions and recommendations pertaining to the geotechnical engineering design for this project.

7.2. Site Preparation

The solar panel pre-cast concrete foundations are designed to be placed directly on the ground surface. The foundations may be placed on intact native alluvium materials or the existing fill. Prior to placing the pre-cast foundations, the ground surface should be cleared and grubbed, including a removal of any deleterious, organic, and oversized materials from the proposed foundation locations. Any soil that is loosened or disturbed from the clearing and grubbing process should be conditioned to near optimum moisture content and compacted to a minimum of 90 percent of the maximum dry density.

We anticipate that portions of the site may receive minor cuts or fills. After clearing and grubbing operations, any areas to receive fill should be scarified a minimum of 8 inches, conditioned to near optimum moisture content and recompacted to a minimum of 90 percent of the maximum dry density. Fill should then be placed in accordance with Section 8 of this report (General Site Grading Recommendations).

Additionally, we anticipate that paved service roads or concrete flatwork areas may be constructed within portions of the site. In any pavement or concrete flatwork area, the upper 12 inches of subgrade below the proposed pavement or concrete section (i.e., below the aggregate base layer if present) should be removed and replaced as engineered fill. Prior to replacement of fill, the surface exposed during removal should be scarified to a depth of at least 6 inches, moisture conditioned and recompacted to at least 90 percent of the maximum dry density. The exposed excavation bottom should be observed by an engineer from Twining, Inc. to evaluate the presence of any unsuitable materials prior to processing and recompaction.

7.3. Foundations

The proposed solar panel system includes pre-cast concrete foundations placed directly on the ground surface. Based on our research of the Sunpower T20 Tracker Solar Panels, we understand that they are supported in the front by one circular foundation and in the rear by an oblong-shaped foundation. The front foundation is approximately 3 feet in diameter and weighs approximately 1,600 pounds. The

rear foundation is approximately 2 to 3 feet wide by 8 feet long and weighs approximately 5,000 pounds. The solar panel unit weighs approximately 1,000 pounds.

7.3.1. Allowable Soil Bearing Pressure and Estimated Static Settlement

A pre-cast concrete foundation placed directly on the ground surface may be designed for a maximum allowable dead-plus-live load bearing pressure of 1,000 pounds per square foot (psf). The allowable bearing pressures may be increased by one-third for short-term wind or seismic loads.

When using the recommended maximum allowable bearing pressure for design, the total static settlement is estimated to be no more than ½ inch. The differential settlement is estimated to be no more than ¼ inch between the front and rear footings.

7.3.2. Lateral Resistance for Shallow Foundations

Lateral loads acting on structures may be resisted by friction between the bottom of foundations and the supporting soils. A friction coefficient of 0.35 should be used with vertical loads on foundations in contact with the on-site soils. The aforementioned lateral resistance parameters are unfactored values.

7.4. Preliminary Pavement Recommendations

Our R-Value test results indicate values from 9 to 21 for the selected near-surface soil samples tested. Therefore, an R-value of 10 was assumed in our analysis. The pavement sections provided below are based on the soil conditions encountered during our field exploration, assumed R-Value of 10, and assumed Traffic Indices. Since the actual pavement subgrade materials exposed during grading may be significantly different than those materials tested during our exploration, additional testing may be necessary. Should the results of those tests indicate a significant difference, the design pavement sections provided above may need to be revised.

7.4.1. Flexible Pavements

An R-Value of 10 was assumed for the on-site soils in order to provide preliminary pavement recommendations. Preliminary flexible pavement recommendations are provided in Table 4. These recommendations are generally based on Caltrans design methods using assumed Traffic Indices of 5.0 and 7.0. The traffic indices assumed should be reviewed by the project owner, architect, and or civil engineer to evaluate their suitability for this project. Additional pavement section recommendations for different Traffic Indices can be provided by Twining if requested.

Table 4
Preliminary Recommended Flexible Pavement Sections

Assumed Traffic Index	Minimum Thickness of Asphalt Concrete (inches)	Minimum Thickness of Class II Aggregate Base (inches)
5.0	3 ½	8 ½
6.0	4	10 ½
7.0	5	12 ½

7.4.2. Rigid Pavement

Concrete pavements may be desirable at entry points and heavy traffic areas. Subgrade preparation should be performed in accordance with Section 7.2. For the existing on-site soils, we have assumed an R-value of 10. We also assumed a Traffic Index (TI) of 7.0. For these assumed conditions, we recommend that the concrete pavement should have a minimum thickness of 8 inches and a 28-day compressive strength of at least 3,500 pounds per square inch (psi). A minimum of 4 inches of aggregate base should be placed beneath the concrete pavement for purposes of providing a uniform bearing surface for the pavement. The base should be compacted to 95 percent relative compaction. Control joints should be spaced at intervals of 15 feet or less. Concrete pavements should be underlain by at least 1 foot of overexcavated and recompacted subgrade soils. Recompacted soils should have a minimum relative compaction of 90 percent and should be placed and compacted in accordance with Section 8 of this report.

7.5. Temporary Excavations

We anticipate that temporary, shallow excavations with vertical side slopes less than 4 feet high will generally be stable. All shallow excavations should be performed in accordance with CalOSHA requirements. Any temporary, unsurcharged excavation sides deeper than 4 feet may be sloped back at an inclination of 1.5:1 (horizontal:vertical gradient). Temporary shoring may be required where space surrounding the excavation is limited. Personnel from Twining should observe the excavation so that any necessary modifications based on variations in the encountered soil conditions can be made. All applicable safety requirements and regulations, including CalOSHA requirements, should be met.

Where sloped excavations are used, the tops of the slopes should be barricaded so that vehicles and storage loads do not encroach within 10 feet of the tops of excavated slopes. A greater setback may be necessary when considering heavy vehicles, such as concrete trucks and cranes. Twining should be advised of such heavy vehicle loadings so that specific setback requirements may be established.

7.6. Drainage Control

The control of surface water is essential to the satisfactory performance of the site improvements. Surface water should be controlled so that conditions of uniform moisture are maintained throughout the site, even during periods of heavy rainfall. The following recommendations are considered minimal.

- Ponding and areas of low flow gradients should be avoided.
- Paved surfaces should be provided with a gradient of at least 1 percent.
- Positive drainage devices, such as graded swales, paved ditches, and/or catch basins should be employed to accumulate and to convey water to appropriate discharge points.
- Concrete walks and flatwork should not obstruct the free flow of surface water.

7.7. Expansive Soils

Expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from rainfall, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought or other factors and may cause unacceptable settlement or heave of structures, concrete slabs supported on-grade, or pavements supported over these materials. Depending on the extent and location below finished subgrade, these soils could have a detrimental effect on the proposed construction.

Based on our laboratory test and classification of the anticipated soil on site, it is our opinion that these exposed soils will have a very low to low expansion potential.

Concrete floor slabs founded on soil with a very low to low expansion potential should be reinforced with a minimum of No. 3 bars at 18 inches on center. Every effort should be made to minimize large moisture content variations in the underlying soils. Testing of the final subgrade soils may be conducted to evaluate their expansion potential and confirm or modify the recommendations presented herein. The need for additional reinforcement and other design considerations for slabs and footings should be evaluated by the structural engineer.

7.8. Soil Corrosion

The potential for the on-site materials to corrode buried steel and concrete improvements was evaluated. Laboratory testing was performed on representative soil samples to evaluate pH, minimum resistivity, and chloride and soluble sulfate content. Table B-4 in Appendix B presents the results of our corrosivity testing. General recommendations to address the corrosion potential of the on-site soils are below.

7.8.1. Reinforced Concrete

Laboratory tests indicate that the potential of sulfate attack on concrete in contact with the on-site soils is severe based on ACI 318, Table 4.3.1. As a minimum Type V cement should be used onsite, and concrete should have a maximum water-cement ratio of 0.45.

7.8.2. Metallic

Laboratory tests indicate that the on-site soils are severly corrosive to buried ferrous metals and reinforcing steel. As a consequence of these conditions, we recommend that consideration be given to using plastic piping instead of metal, where possible. Alternatively, a corrosion specialist should be consulted regarding suitable types of piping and appropriate protection for underground metal conduits.

8. GENERAL SITE GRADING RECOMMENDATIONS

Any site grading operations should conform with applicable local building and safety codes and to the rules and regulations of those governmental agencies having jurisdiction over the subject construction.

The grading contractor is responsible to notify governmental agencies, as required, and a representative of Twining, Inc. at the start of site cleanup, at the initiation of grading, and any time that grading operations are resumed after an interruption. Each step of the grading should be evaluated in a specific area by a

representative of Twining, Inc. and where required, should be approved by the applicable governmental agencies prior to proceeding with subsequent work.

The following site grading recommendations should be regarded as minimal. The site grading recommendations should be incorporated into the project plans and specifications.

1. Prior to grading, existing vegetation, trash, surface structures and debris should be removed and disposed off-site at a legal dumpsite. Any existing utility lines, or other subsurface structures, which are not to be utilized should be removed, destroyed, or abandoned in compliance with current governmental regulations and with concurrence from Twining, Inc.

2. Subsequent to cleanup operations, and prior to initial grading, a reasonable search should be made for subsurface obstructions and/or possible loose fill or detrimental soil types. This search should be conducted by the contractor, with advice from and under the observation of a representative of Twining, Inc.

3. Fill should be spread in 6- to 8-inch loose lifts and should be moisture conditioned and compacted in accordance with the recommendations presented in the "Site Preparation" subsection of this report. All undocumented fill or unsuitable soils should be removed and compacted under observation and testing of a representative of Twining, Inc.

4. The exposed subgrade and/or excavation bottom should be observed and evaluated by a representative of Twining, Inc. for conformance with the intent of the recommendations presented in this report and prior to any further processing or fill placement. It should be understood that the actual encountered conditions may warrant excavation and/or subgrade preparation beyond the extent recommended and/or anticipated in this report.

5. On-site inorganic granular soils that are free of debris or contamination and are not greater than 6 inches in largest dimension are considered suitable for placement as compacted fill. A representative of Twining, Inc. should provide guidance for suitability and placement of on-site clay fill materials.

6. Observation and field tests shall be performed during grading by a representative of Twining, Inc. in order to assist the contractor in obtaining the proper moisture content and required degree of compaction. Where less than the required degree of compaction is indicated, additional compactive effort and any necessary adjustments in the moisture content of the soil should be made to obtain the required compaction.

7. To evaluate the presence of satisfactory materials at design elevations, footing preparations should be observed to be clean of loosened soil and debris before placing steel or concrete and probed for soft areas. If soft or loose soils or unsatisfactory materials are encountered, these materials should be removed and replaced with compacted fill.

8. In the event that underground facilities such as pipes or underground storage tanks are encountered during grading, the appropriate authorities, property owners, and regulatory authorities should be notified. Removal of underground storage tanks is regulated by city or county health departments and/or by the Fire Department. In the event that tanks containing unknown substances are encountered, no attempts should be made to remove such objects until their contents have been ascertained and directions issued by competent professionals or

regulators. Septic tanks should be removed entirely. Cesspools or seepage pits should be pumped of their contents and removed in their entirety. Water wells should be capped in accordance with the requirements of the appropriate regulatory agencies.

9. Wherever, in the opinion of a representative of Twining, Inc., an unsatisfactory condition is being created in any area, whether by cutting or filling, the work should not proceed in that area until the condition has been corrected.

9. DESIGN REVIEW AND CONSTRUCTION MONITORING

Geotechnical review of plans and specifications is of paramount importance in engineering practice. The poor performance of many structures has been attributed to inadequate geotechnical review of construction documents. Additionally, observation and inspection of the foundation installation will be important to the performance of the proposed development. The following sections present our recommendations relative to the review of construction documents and the monitoring of construction activities.

9.1. Plans and Specifications

The design plans and specifications should be reviewed by Twining, Inc. prior to bidding and construction, as the geotechnical recommendations may need to be reevaluated in the light of the actual design configuration and loads. This review is necessary to evaluate whether the recommendations contained in this report and future reports have been properly incorporated into the project plans and specifications. Based on the work already performed, this office is best qualified to provide such review.

9.2. Construction Monitoring

Foundation installation and any site grading operations should be observed and tested. The substrata exposed during the construction may differ from that encountered in the test excavations. Continuous observation by a representative of Twining, Inc. during construction allows for evaluation of the soil conditions as they are encountered, and allows the opportunity to recommend appropriate revisions where necessary.

10. LIMITATIONS

The recommendations and opinions expressed in this report are based on Twining, Inc.'s review of readily available background documents, on information obtained from field explorations, and on laboratory testing. It should be noted that this study did not evaluate the possible presence of hazardous materials on any portion of the site. In the event that any of our recommendations conflict with recommendations provided by other design professionals, we should be contacted to aid in resolving the discrepancy.

Due to the limited nature of our field explorations, conditions not observed and described in this report may be present on the site. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation and laboratory testing can be performed upon request. It should be understood that conditions different from those anticipated in this report may be encountered during grading operations, for example, the extent of removal of unsuitable soil, and that additional effort may be required to mitigate them.

Site conditions, including groundwater elevation, can change with time as a result of natural processes or the activities of man at the subject site or at nearby sites. Changes to the applicable laws, regulations, codes, and standards of practice may occur as a result of government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Twining, Inc. has no control.

Twining, Inc.'s recommendations for this site are, to a high degree, dependent upon appropriate quality control of subgrade preparation, fill placement, and foundation construction. Accordingly, the recommendations are made contingent upon the opportunity for Twining, Inc. to observe grading operations and foundation excavations for the proposed construction. If parties other than Twining, Inc. are engaged to provide such services, such parties must be notified that they will be required to assume complete responsibility as the geotechnical engineer of record for the geotechnical phase of the project by concurring with the recommendations in this report and/or by providing alternative recommendations.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Twining, Inc. should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report has been prepared for the exclusive use by County of Los Angeles, Department of Public Works and their agents for specific application to the proposed Solar Energy Project located at 45100 60th Street West in Lancaster, California. Any party other than County of Los Angeles, Department of Public Works who wishes to use this report for an adjacent or nearby project shall notify Twining, Inc. of such intended use. Land use, site conditions or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of this report and the nature of the new project, Twining, Inc. may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the Client or anyone else will release Twining, Inc. from any liability resulting from the use of this report by any unauthorized party.

Twining, Inc. has endeavored to perform its evaluation using the degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical professionals with experience in this area in similar soil conditions. No other warranty, either express or implied, is made as to the conclusions and recommendations contained in this report.

11. SELECTED REFERENCES

American Society for Testing and Materials, 2008, Soil and Rock: Volumes 4.08 and 4.09.

California Buildings Standards Commission, 2007, 2007 California Building Code, California Code of Regulations, Title 24, Part 2.

California Department of Conservation, Division of Mines and Geology, 1979, State of California, Special Studies Zones, Sleepy Valley Quadrangle, Revised Official Map: dated January 1, scale 1:24,000.

California Department of Conservation, California Geological Survey, 2005a, Seismic Hazard Zone Report for the Lancaster West 7.5-Minute Quadrangle, Los Angeles, California: Seismic Hazard Zone Report 095, 44 pp. plus 2 plates.

California Department of Conservation, California Geological Survey, 2005b, State of California Seismic Hazard Zones, Lancaster West Quadrangle, Official Map: dated February 11, scale 1:24,000.

California Department of Conservation, California Geological Survey, 2008, Guidelines for Evaluation and Mitigation of Seismic Hazards in California: Special Publication 117A, 98 pp.

County of Los Angeles, 2011, 2011 County of Los Angeles Building Code, Los Angeles County Code Title 26.

Dibblee, T.W., Jr., 1967, Areal geology of the western Mojave Desert, California: U.S. Geological Survey Professional Paper 522, 153 p.

Earthquake Engineering Research Center, 2003, Recent Advances in Soil Liquefaction Engineering: A Unified and Consistent Framework: Report No. EERC 2003-06.

Earthquake Engineering Research Institute, 2008, Soil Liquefaction During Earthquakes: Monograph No. MNO-12.

International Conference of Building Officials, 1998, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada.

Jennings, C.W. and Bryant, W.A., 2010, Fault Activity Map of California: California Department of Conservation, California Geological Survey Geologic Data Map No. 6, Scale 1:750,000.

Los Angeles County Department of Regional Planning, 2008, Draft General Plan: 228 pp. plus 2 appendices.

Parsons, 2010, Lancaster Solar Energy Site, Adjacent to Mira Loma Detention Center, W. Avenue I, Lancaster, CA 93536, Phase 1 Environmental Site Assessment: dated February, 13 section plus appendices.

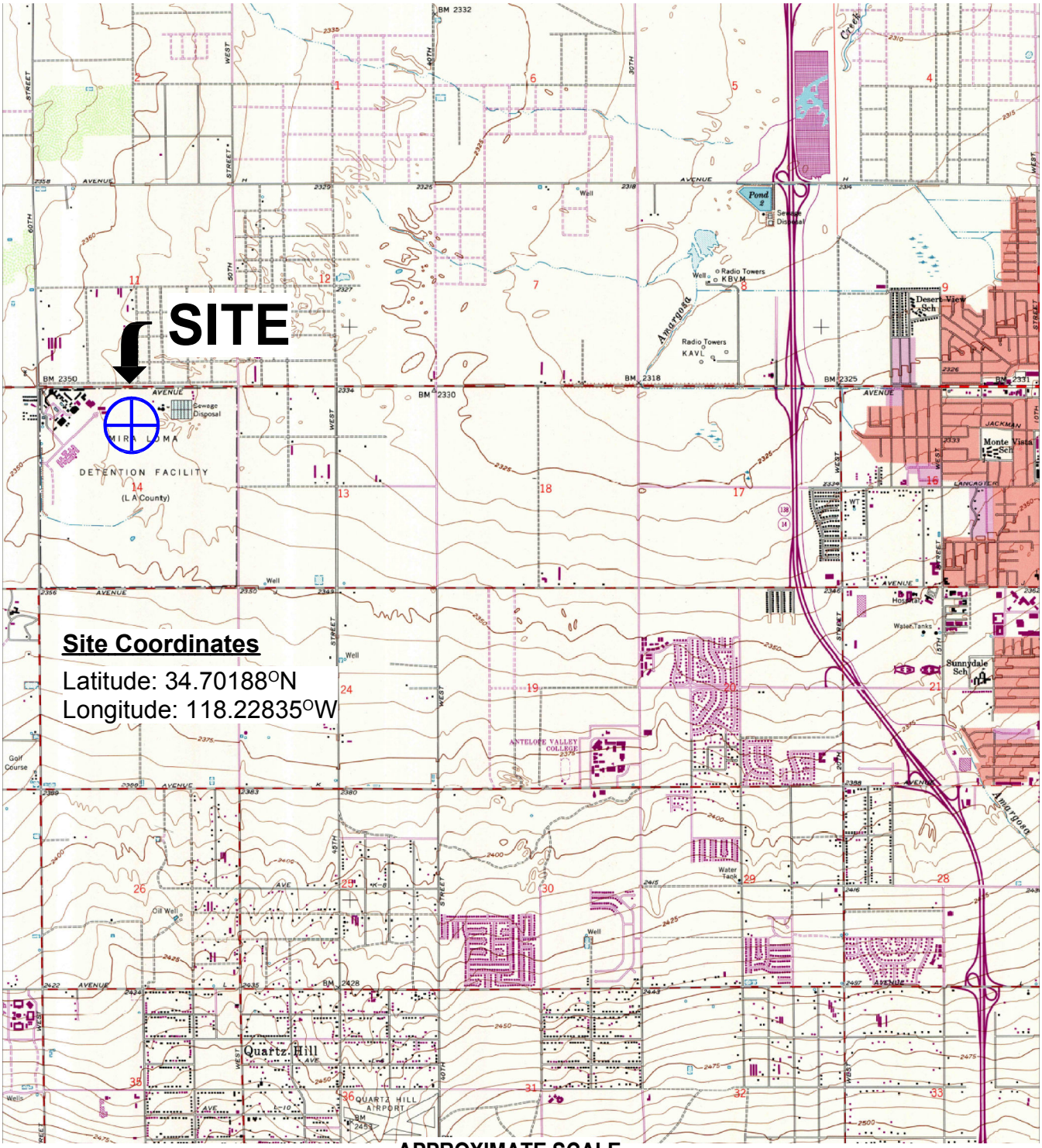
Southern California Earthquake Center, 1999, Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction in California: dated March, 63 pp.

Toppozada, T., Branum, D., Petersen, M., Hallstrom, C., Cramer, C., and Reichle, M., 2000, Epicenters of and Areas Damaged by M≥5 California Earthquakes, 1800-1999: California Department of Conservation, Division of Mines and Geology Map Sheet 49, scale 1"=40 km.

United States Geological Survey, 1958 (Photorevised 1974), Lancaster West, California Quadrangle Map, 7.5 Minute Series, Scale 1:24,000.

Youd, T.L. and Idriss, I.M., 2001, Liquefaction Resistance of Soils: Summary Report of NCEER 1996 and 1998 NCEER/SF Workshops on Evaluation of Liquefaction Resistance of Soils: Journal of Geotechnical and Geoenvironmental Engineering, April 2001, pp.297-313.

FIGURES



APPROXIMATE SCALE

1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETRE

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

N

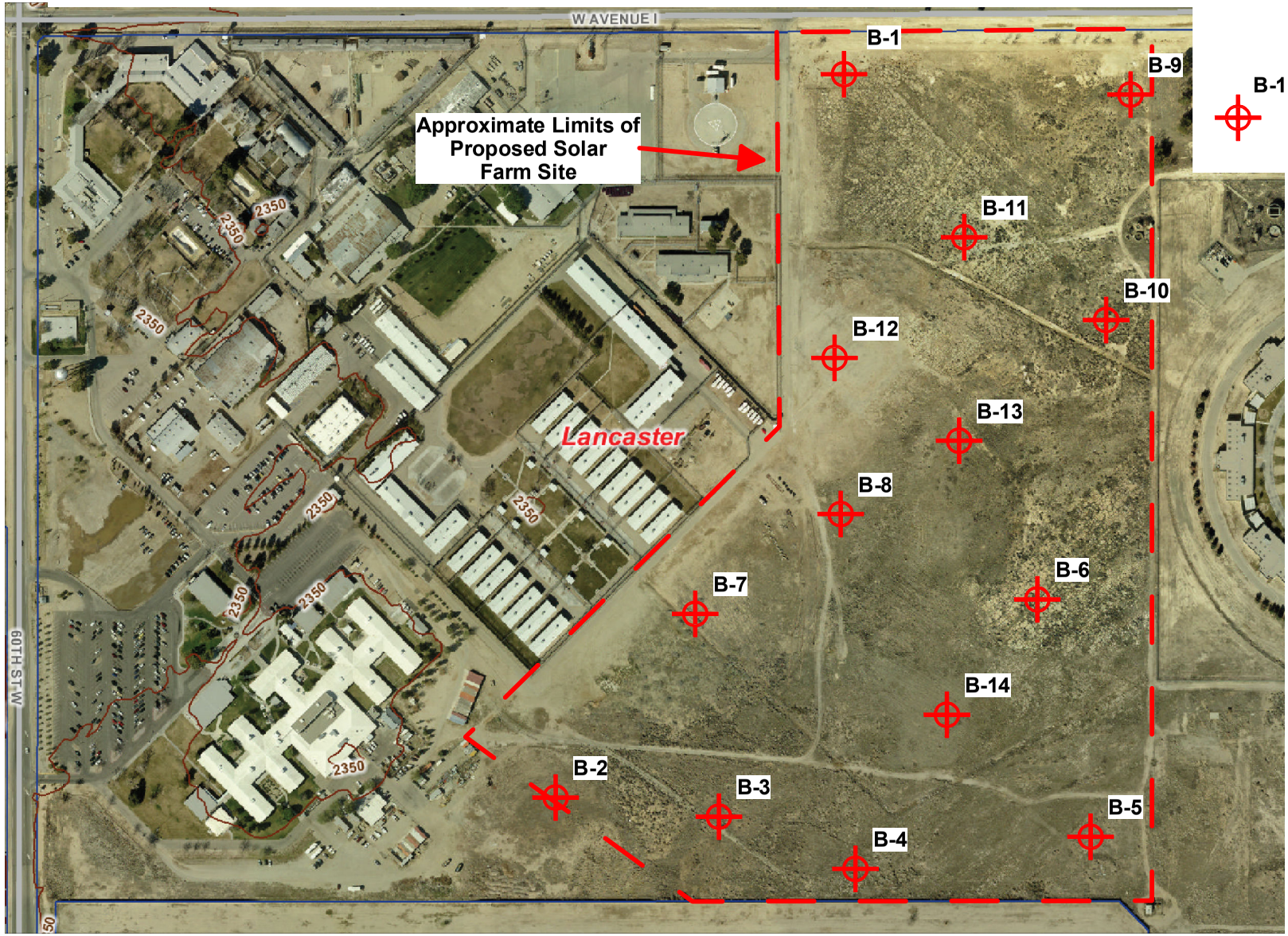
Reference: USGS, 1958 (Photorevised 1974), Lancaster West Quadrangle, California - Los Angeles Co., 7.5 Minute Series (Topographic)

TWINING

SITE LOCATION MAP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	FIGURE 1



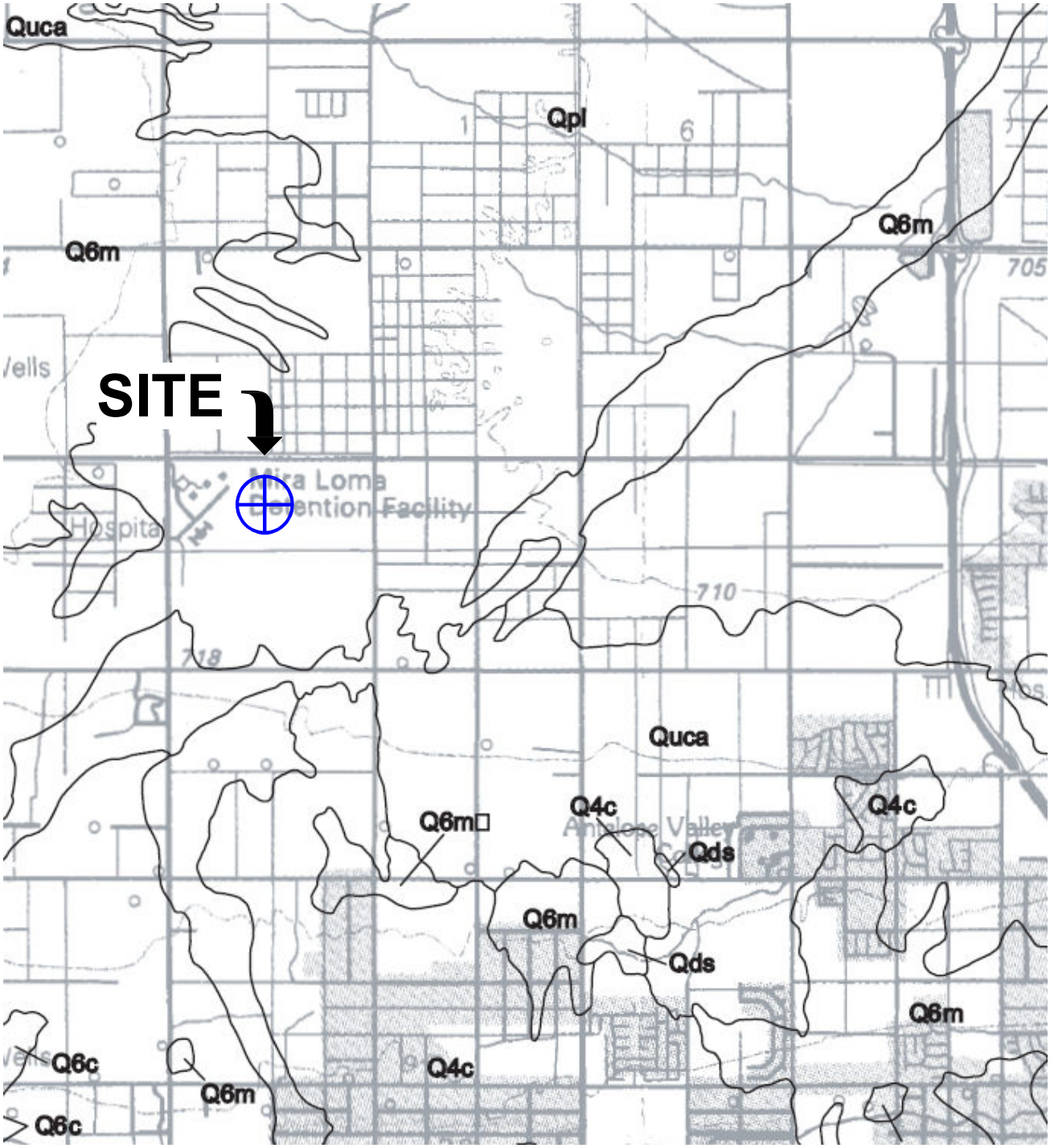
TWINING

Base map from Los Angeles County Department of Regional Planning GIS-NET

BORING LOCATION MAP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	2



SCALE

N

Legend:

Qpl Quaternary Playa Deposits

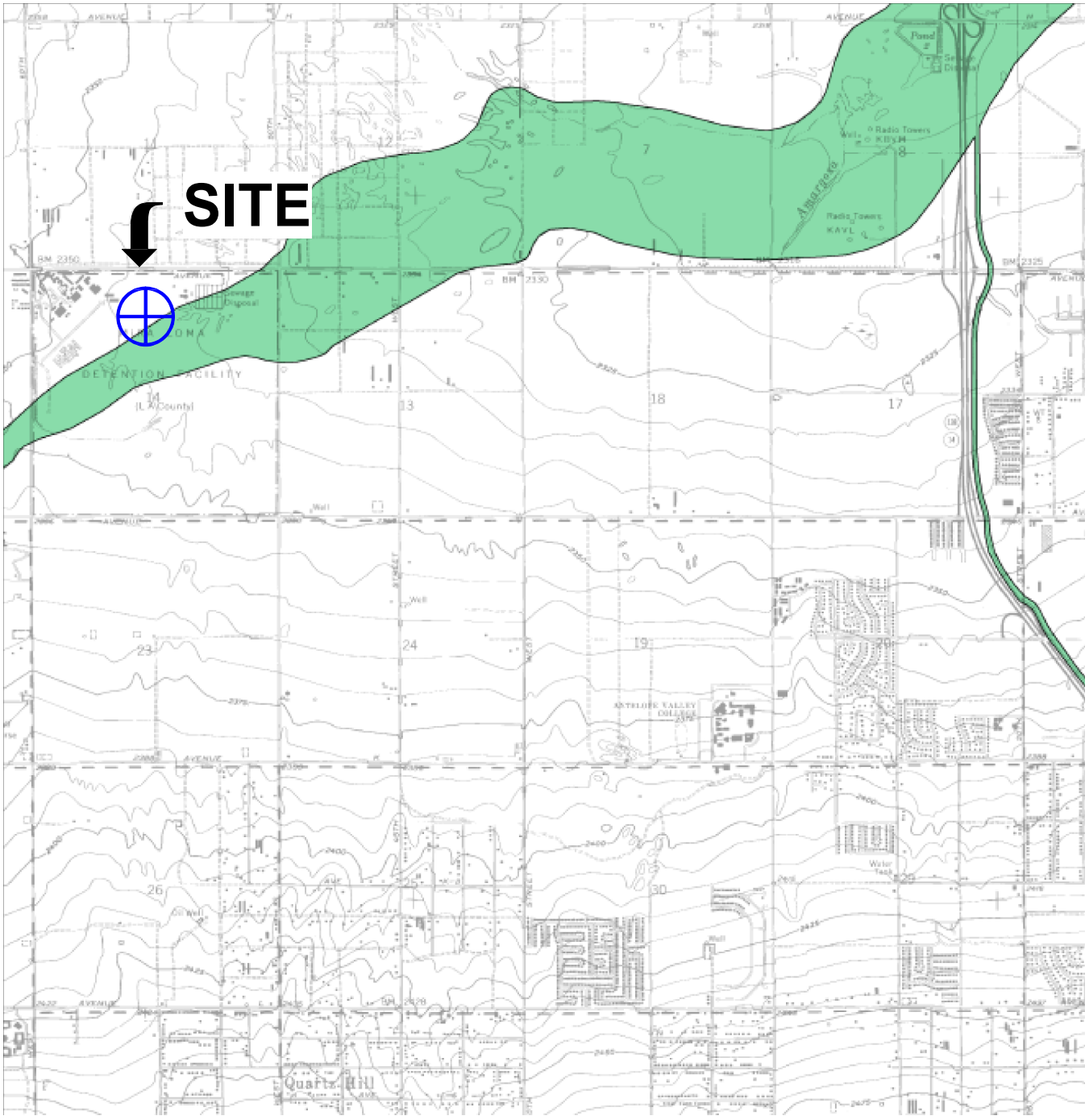
Reference: California Department of Conservation, California Geological Survey (2005)

TWINING

REGIONAL GEOLOGIC MAP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	FIGURE 3



APPROXIMATE SCALE

Legend:

Liquefaction

Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground-water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

N

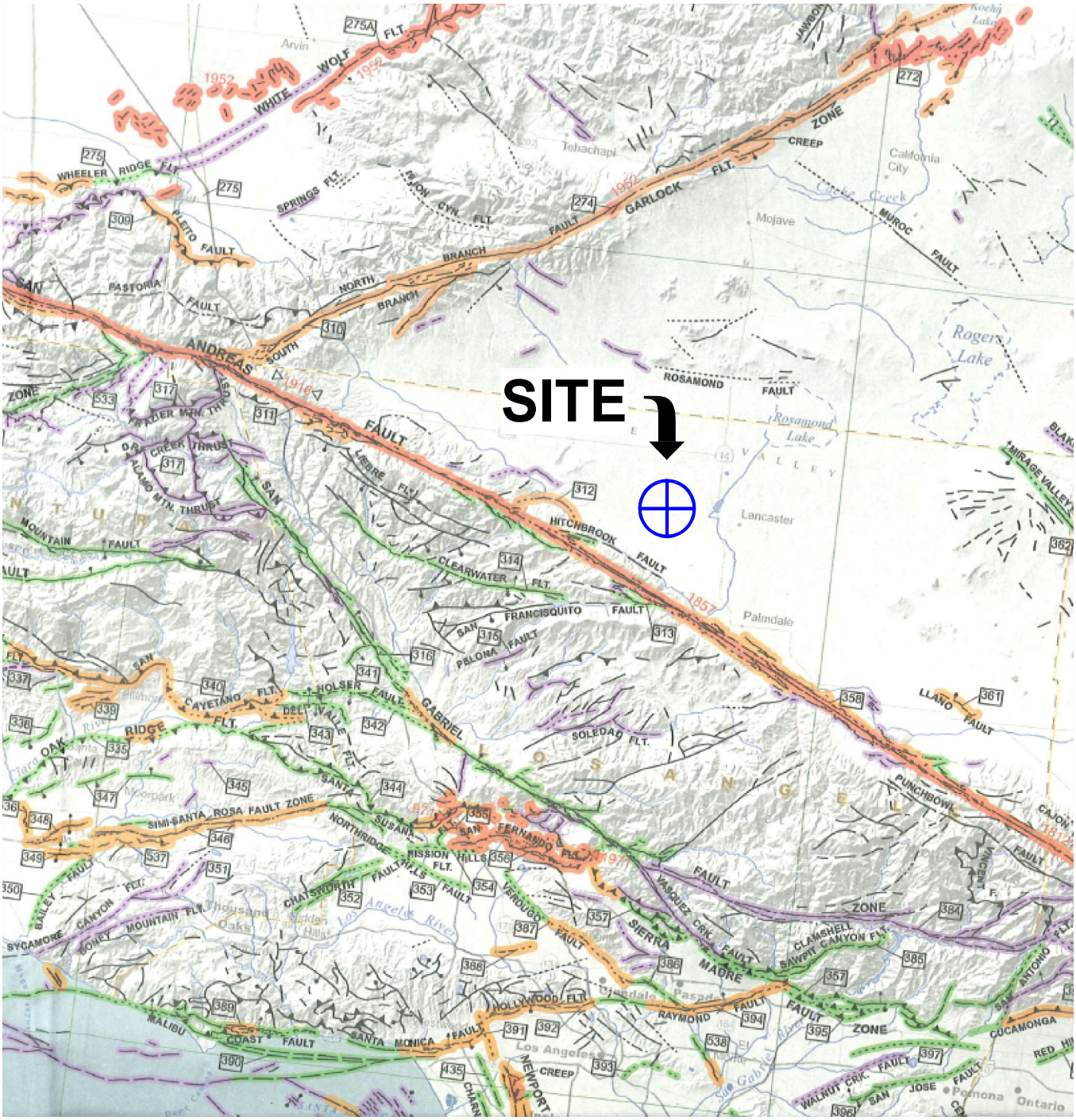
Reference: California Department of Conservation, California Geological Survey (2005)

TWINING

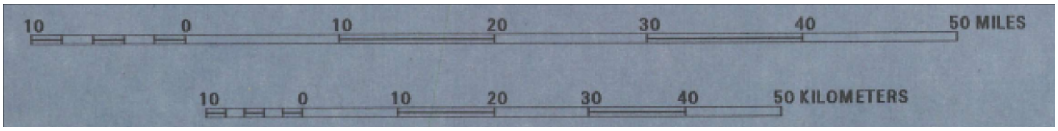
SEISMIC HAZARDS MAP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	FIGURE 4



APPROXIMATE SCALE



N

Reference: Jennings, C.W. and Bryant, W.A. (2010)

TWINING

FAULT LOCATION MAP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE 5
110045.1	February 2011	PAGE 1 OF 3

EXPLANATION

Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays. Fault traces are queried where continuation or existence is uncertain. Concealed faults in the Great Valley are based on maps of selected subsurface horizons, so locations shown are approximate and may indicate structural trend only. All offshore faults based on seismic reflection profile records are shown as solid lines where well defined, dashed where inferred, queried where uncertain.

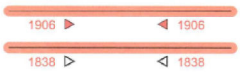
FAULT CLASSIFICATION COLOR CODE
(Indicating Recency of Movement)

Fault along which historic (last 200 years) displacement has occurred and is associated with one or more of the following:

(a) a recorded earthquake with surface rupture. (Also included are some well-defined surface breaks caused by ground shaking during earthquakes, e.g. extensive ground breakage, not on the White Wolf fault, caused by the Arvin-Tehachapi earthquake of 1952). The date of the associated earthquake is indicated. Where repeated surface ruptures on the same fault have occurred, only the date of the latest movement may be indicated, especially if earlier reports are not well documented as to location of ground breaks.

(b) fault creep slippage - slow ground displacement usually without accompanying earthquakes.

(c) displaced survey lines.



A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture termination point.



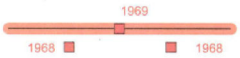
Date bracketed by triangles indicates local fault break.



No triangle by date indicates an intermediate point along fault break.



Fault that exhibits fault creep slippage. Hachures indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.



Square on fault indicates where fault creep slippage has occured that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).

Holocene fault displacement (during past 11,700 years) without historic record. Geomorphic evidence for Holocene faulting includes sag ponds, scarps showing little erosion, or the following features in Holocene age deposits: offset stream courses, linear scarps, shutter ridges, and triangular faceted spurs. Recency of faulting offshore is based on the interpreted age of the youngest strata displaced by faulting.

Late Quaternary fault displacement (during past 700,000 years). Geomorphic evidence similar to that described for Holocene faults except features are less distinct. Faulting may be younger, but lack of younger overlying deposits precludes more accurate age classification.

Quaternary fault (age undifferentiated). Most faults of this category show evidence of displacement sometime during the past 1.6 million years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age. Unnumbered Quaternary faults were based on Fault Map of California, 1975. See Bulletin 201, Appendix D for source data.

Pre-Quaternary fault (older that 1.6 million years) or fault without recognized Quaternary displacement. Some faults are shown in this category because the source of mapping used was of reconnaissnce nature, or was not done with the object of dating fault displacements. Faults in this category are not necessarily inactive.

Reference: Jennings, C.W. and Bryant, W.A. (2010)

TWINING

FAULT LOCATION MAP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE 5
110045.1	February 2011	PAGE 2 OF 3

ADDITIONAL FAULT SYMBOLS

Bar and ball on downthrown side (relative or apparent).

Arrows along fault indicate relative or apparent direction of lateral movement.

Arrow on fault indicates direction of dip.

Low angle fault (barbs on upper plate). Fault surface generally dips less than 45° but locally may have been subsequently steepened. On offshore faults, barbs simply indicate a reverse fault regardless of steepness of dip.

OTHER SYMBOLS

Numbers refer to annotations listed in the appendices of the accompanying report. Annotations include fault name, age of fault displacement, and pertinent references including Earthquake Fault Zone maps where a fault has been zoned by the Alquist-Priolo Earthquake Fault Zoning Act. This Act requires the State Geologist to delineate zones to encompass faults with Holocene displacement.

Structural discontinuity (offshore) separating differing Neogene structural domains. May indicate discontinuities between basement rocks.

Brawley Seismic Zone, a linear zone of seismicity locally up to 10 km wide associated with the releasing step between the Imperial and San Andreas faults.

Geologic Time Scale			Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
						ON LAND	OFFSHORE
Quaternary	Late Quaternary	Historic				Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.	
		Holocene	200			Displacement during Holocene time.	Fault offsets seafloor sediments or strata of Holocene age.
		Pleistocene	11,700			Faults showing evidence of displacement during late Quaternary time.	Fault cuts strata of Late Pleistocene age.
	Early Quaternary		700,000			Undivided Quaternary faults - most faults in this category show evidence of displacement during the last 1,600,000 years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age.	Fault cuts strata of Quaternary age.
Pre-Quaternary			1,600,000*			Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.
			4.5 billion (Age of Earth)				

* Quaternary now recognized as extending to 2.6 Ma (Walker and Geissman, 2009). Quaternary faults in this map were established using the previous 1.6 Ma criterion.

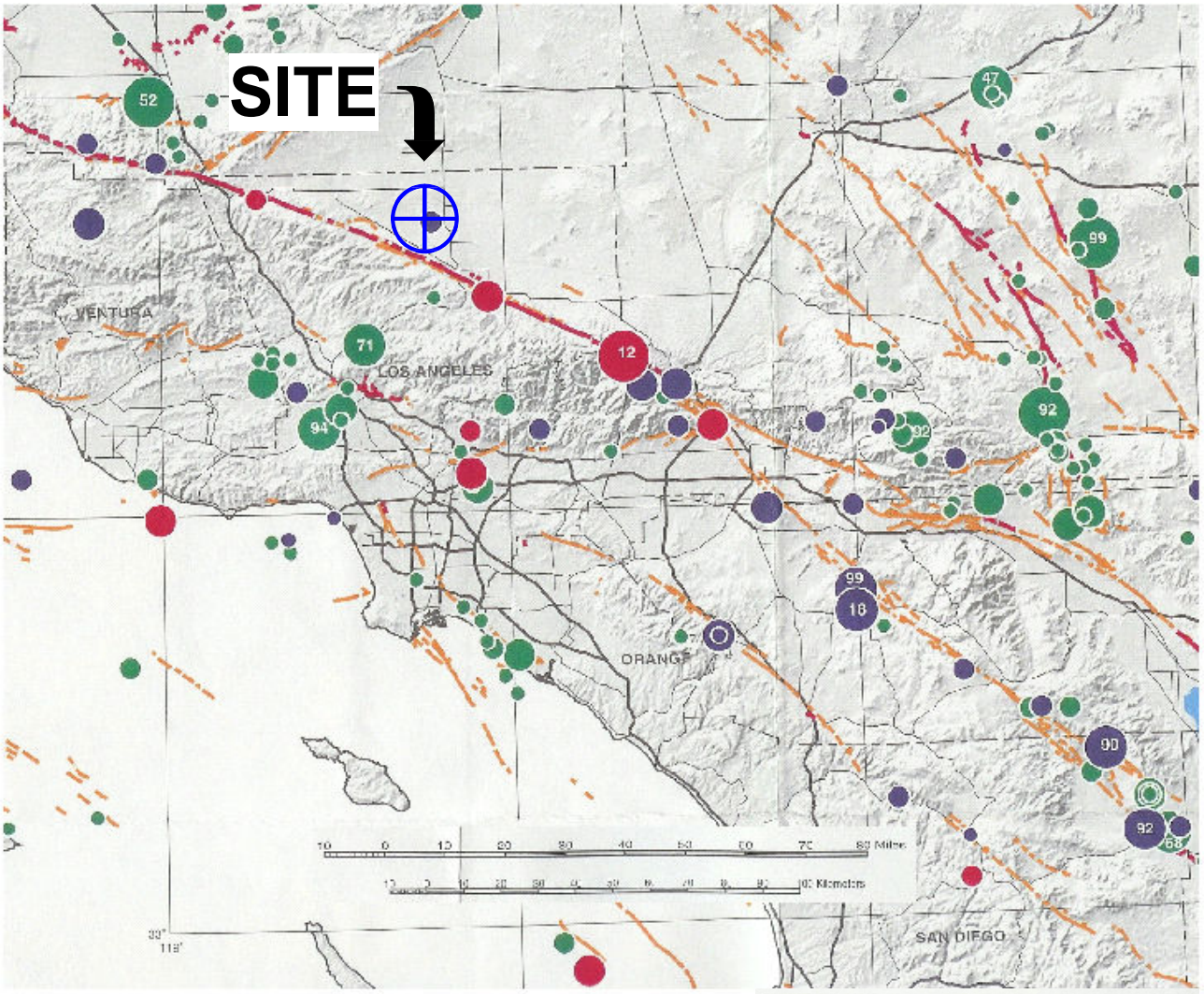
Reference: Jennings, C.W. and Bryant, W.A. (2010)

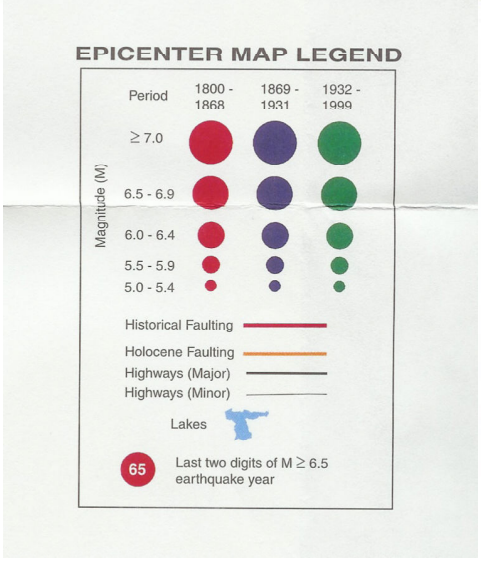
TWINING

FAULT LOCATION MAP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE 5
110045.1	February 2011	PAGE 3 OF 3





Reference: Toppozada et al. (2000)

TWINING

HISTORICAL SEISMICITY

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	FIGURE 6

APPENDIX A

FIELD EXPLORATION

Appendix A
Field Exploration

General

The subsurface exploration program for the proposed project consisted of drilling and logging fourteen exploratory borings. The exploratory borings were advanced with a CME-75 truck-mounted drill rig. Drilling was performed by ABC Liovin of Signal Hill, California. The borings were advanced to depths of approximately 21 to 51½ feet below the existing grades. Upon completion of the borings, the boreholes were backfilled with soil from the cuttings.

Drilling and Sampling

The Logs of Borings are presented as Figures A-2 through A-15. An explanation to the Logs of Borings is presented as Figure A-1. The Logs of Borings describe the earth materials encountered, samples obtained, and show the field and laboratory tests performed. The logs also show the boring number, drilling date and the name of the logger and drilling subcontractor. Each boring was logged by our personnel using the Unified Soil Classification System. The boundaries between soil types shown on the logs are approximate because the transition between different soil layers may be gradual. Drive samples of representative earth materials were obtained from the borings.

A California modified split spoon sampler was used to obtain drive samples of the soil encountered. This sampler consists of a 3-inch outside diameter (O.D.), 2.4-inch inside diameter (I.D.) split barrel shaft that is driven a total of 18-inches into the soil at the bottom of the boring. The soil was retained in brass rings for laboratory testing. Additional soil from each drive remained in the cutting shoe was usually discarded after visually classifying the soil. The number of blows required to drive the sampler the final 12 inches is presented on the boring logs.

Disturbed samples were obtained using a Standard Penetration Sampler (SPT). This sampler consists of a 2-inch O.D., 1.4-inch I.D. split barrel shaft that is advanced into the soil at the bottom of the drilled hole a total of 18 inches. The number of blows required to drive the sampler the final 12 inches is presented on the boring logs. Soil samples obtained by the SPT were stored in plastic bags.

Both the California modified sampler and the SPT sampler were driven by an automatic trip hammer weighing 140 pounds at a drop height of approximately 30 inches.

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			Graphic Symbols	Group Symbols	Typical Descriptions
COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve)	GRAVELS (50% or more of coarse fraction retained on No. 4 sieve)	Clean Gravels		GW	Well-graded gravels and grave-sand mixtures, little or no fines
				GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravel with Fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than 50% of coarse fraction passes No. 4 sieve)	Clean Sands		SW	Well graded sands and gravelly sands, little or no fines
				SP	Poorly graded sands and gravelly sands, little or not fines
		Sands with Fines		SM	Silty sands, sand-silt mixtures
				SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOIL (50% or more passes No. 200 sieve)	SILTS and CLAYS (Liquid Limit 50% or less)			ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clay
				OL	Organic silts and organic silty clays of low plasticity
	SILTS and CLAYS (Liquid Limit greater than 50%)			MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity
Highly Organic Soils				PT	Peat, muck and other highly organic soils

COARSE-GRAINED SOILS

Relative Density	SPT (blows/ft.)	Relative Density (%)
Very Loose	< 4	0 – 15
Loose	4 – 10	15 – 35
Medium Dense	10 – 30	35 – 65
Dense	30 – 50	65 – 85
Very Dense	> 50	85 – 100

NOTE: SPT blow counts based on 140 lb. hammer falling 30 inches

FINE-GRAINED SOILS

Consistency	SPT (blows/ft.)	Torvane Undrained Shear Strength (tsf)	Pocket Penetrometer Unconfined Compressive Strength (tsf)
Very Soft	< 2	< 0.13	< 0.25
Soft	2 – 4	0.13 – 0.25	0.25 – 0.5
Medium Stiff	4 – 8	0.25 – 0.5	0.5 – 1.0
Stiff	8 – 15	0.5 – 1.0	1.0 – 2.0
Very Stiff	15 – 30	1.0 – 2.0	2.0 – 4.0
Hard	> 30	> 2.0	> 4.0

Sample Symbol	Sample Type	Description
	SPT	1.4 in. I.D., 2.0 in. O.D. driven sampler
	California Modified	2.4 in. I.D., 3.0 in. O.D. driven sampler
	Bulk	Retrieved from soil cuttings
	Thin-Walled Tube	Pitcher or Shelby Tube
	California Modified	No Recovery w/ California Modified Sampler
	SPT	No Recovery w/ SPT Sampler

TWINING

EXPLANATION FOR LOG OF BORINGS

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE A-1
110045.1	February 2011	SHEET 1 OF 2

ABBREVIATION OF LABORATORY TESTING			
ATT	Atterberg Limits	O	Organic Content
C	Consolidation	pH	pH
CBR	California Bearing Ratio	PP	Pocket Penetrometer
Ch	Water Soluble Chlorides	RV	Resistance Value
CORR	Corrosivity Series	SE	Sand Equivalent
DS	Direct Shear	SG	Specific Gravity
EI	Expansion Index	SO4	Water Soluble Sulfates
ER	Electrical Resistivity	TX	Triaxial Compression
GS	Grain Size Distribution	TV	Torvane Shear
K	Permeability	UC	Unconfined Compression
MAX	Moisture/Density (Modified Proctor)	WASH	No. 200 Wash Sieve

Notes:	D_{10}, D_{30}, D_{50}, and D_{100}	Particle size corresponding to specified value on the percentage finer scale
	Cu	Coefficient of uniformity
	Cc	Coefficient of curvature

TWINING

EXPLANATION FOR LOG OF BORINGS

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE A-1
110045.1	February 2011	SHEET 2 OF 2

DATE DRILLED 1/25/11 | LOGGED BY NJN | **BORING NO. 1**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded ±(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
							ML	FILL: SILT, yellow brown, moist
					CORR, RV		ML	ALLUVIUM: SILT, yellow brown to white brown, moist; pin hole voids
5		48	11.5	84.7	DS			
							CL	SANDY LEAN CLAY, yellow brown, moist, hard; fine- to medium-grained sand
10		PUSH						very soft
15		17	16.7	97.9				stiff
							SC	CLAYEY SAND, yellow brown, moist, dense; fine- to medium-grained sand
20		31						
								Total Depth = 21.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
25								
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 2 Sheet 1 of 1

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/25/11 | LOGGED BY NJN | **BORING NO. 2**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
					CORR, MAX, DS		SM	ALLUVIUM: SILTY SAND, orange brown, moist; fine-grained sand
							SP	POORLY GRADED SAND, light orange brown, moist, dense; fine- to medium-grained sand
5		55	5.9	99.6				
10		30						fine- to coarse-grained sand
15			7.3	109.3				
		9	22.8	95.5	ATT		CL	LEAN CLAY, light gray, moist, medium stiff; cemented nodules
20		7						SANDY LEAN CLAY, orange to olive brown, moist, stiff; fine- to medium-grained sand
25		84/10	8.1	121.3			SC	CLAYEY SAND, orange to olive brown, moist, very dense; fine- to medium-grained sand
							SM	SILTY SAND, orange brown, moist, very dense; fine- to medium-grained sand
30		57						
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 3 Sheet 1 of 2

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/25/11 | LOGGED BY NJN | **BORING NO. 2**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
	Driven	50/6	2.5	109.6	WASH		SP-SM	POORLY GRADED SAND WITH SILT, white brown, moist, very dense; fine- to coarse-grained sand
							SM	SILTY SAND, olive brown, moist, very dense; fine- to coarse-grained sand; layers of coarse-grained sand up to 0.5 inches thick
40	Driven	58			GS			
							SP	POORLY GRADED SAND, light orange brown, moist, dense; medium- to coarse-grained sand
45	Driven	57	2.2	111.2	WASH			
50		46					ML	SANDY SILT, light orange brown, moist, hard; fine-grained sand
								Total Depth = 51.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
55								
60								
65								
70								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 3 Sheet 2 of 2

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/25/11 LOGGED BY NJN **BORING NO. 3**

DRIVE WEIGHT 140 lbs. DROP 30 inches DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA DRILLER ABC LIOVIN SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
0					EI		ML	ALLUVIUM: SILT, white to yellow brown, moist; traces of coarse gravel
5		29	13.6	98.8				very stiff
10		8						SANDY SILT, brown to olive brown, moist, stiff; fine-grained sand
15		51	7.8	111.5			SP	POORLY GRADED SAND, light yellow, moist, dense, fine- to medium-grained sand
20		29					SM	SILTY SAND, orange brown, moist, dense; fine- to medium-grained sand
25								Total Depth = 21.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 4 Sheet 1 of 1

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED	1/25/11	LOGGED BY	NJN	**BORING NO.**	**4**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NA
DRILLING METHOD	8" HSA	DRILLER	ABC LIOVIN	SURFACE ELEVATION (ft.)	Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
0						ML	ALLUVIUM: SILT, yellow brown, moist
5		15					stiff, increase plasticity
						SP	POORLY GRADED SAND WITH SILT, yellow brown, moist, medium dense; fine-grained sand
10		30	8.0	111.5		SM	SILTY SAND, orange brown, moist, medium dense; fine- to medium-grained sand; trace coarse-grained sand
15		23				ML	SILT, orange brown, moist, stiff
						SM	SILTY SAND, orange brown, moist, medium dense; fine- to medium-grained sand; trace coarse-grained sand; patchy dark brown staining
						ML	SANDY SILT, orange brown, moist, very stiff; fine-grained sand
20		85	6.0	113.1		SM	SILTY SAND, orange brown, moist, very dense; fine-grained sand
							Total Depth = 21.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
25							
30							
35							

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 5 Sheet 1 of 1

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/25/11 | LOGGED BY NJN | **BORING NO. 5**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
					MAX, DS		ML	ALLUVIUM: SILT, white brown, moist
5		12	31.0	74.4	DS			medium stiff
							CL-ML	SILTY CLAY, white, moist, medium stiff
10		8						
							SM	SILTY SAND, orange brown, moist, dense; fine-grained sand
15		61	5.7	117.9				
							SP	POORLY GRADED SAND, orange brown, moist, dense; fine- to medium-grained sand
20		38						
								Total Depth = 21.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
25								
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 6 Sheet 1 of 1

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/25/11 | LOGGED BY NJN | **BORING NO. 6**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
							CL	FILL: LEAN CLAY, orange brown, moist
					ATT, EI, CORR, RV		CL	ALLUVIUM: LEAN CLAY, orange brown, moist, stiff
5		15						patchy black staining; some fine- to medium-grained sand
							SP	POORLY GRADED SAND WITH SILT, light orange brown to yellow brown, moist, medium dense; fine- to medium-grained sand
10		33	9.4	107.1				layers of coarse-grained sand
15		33						
							ML	SANDY SILT, dark yellow brown, moist, hard; fine-grained sand
20		63	12.2	117.9			SP	POORLY GRADED SAND WITH SILT, orange brown, moist, very dense, fine- to medium-grained sand
								Total Depth = 21.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
25								
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 7 Sheet 1 of 1

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/25/11 | LOGGED BY NJN | **BORING NO. 7**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
					GS, RV		SM	ALLUVIUM: SILTY SAND, yellow brown, moist; fine-grained sand; some medium-grained sand
5		31					ML	SANDY SILT, light yellow brown, moist, hard; fine-grained sand
10		20	18.1	94.4	C		CL	LEAN CLAY, yellow brown, moist, stiff; trace fine- to medium-grained sand
15		16					SM	SILTY SAND, light gray brown, moist, medium dense; fine- to medium-grained sand; patchy white staining some coarse-grained sand; patchy orange staining
20		17	23.3	104.0			SP	POORLY GRADED SAND, orange to yellow brown, moist, medium dense; fine- to medium-grained sand
							SM	SILTY SAND, orange brown, moist, medium dense; fine-grained sand
25								Total Depth = 21.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 8 Sheet 1 of 1

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/25/11 | LOGGED BY NJN | **BORING NO. 8**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
					WASH, ATT		ML	ALLUVIUM: SILT, brown, moist
5		28	14.0	101.1	DS			brown to orange brown, moist, very stiff; patchy white staining
10		8						increased moisture content; layers of fine- to medium-grained sand up to 0.5 inches thick
15		12	41.4	75.4	C		CL	LEAN CLAY, white, wet, medium stiff; trace fine- to medium-grained sand
							SM	SILTY SAND, orange to yellow brown, moist, dense; fine-grained sand; some medium-grained sand
20		35						
								Total Depth = 21.5 feet Backfilled on 1/25/2011 Groundwater not encountered Backfilled with soil cuttings
25								
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 9 Sheet 1 of 1

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/26/11 | LOGGED BY NJN | **BORING NO. 9**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
					EI, MAX, DS		ML	ALLUVIUM: SILT, yellow brown to brown, moist
							ML	SILT, yellow brown, moist
5		34						hard
							SM	SILTY SAND, yellow brown, moist, dense, fine- to medium-grained sand
10		38	12.7	110.6				patchy dark orange staining; white sand veins
15		13						
							SP	POORLY GRADED SAND, light gray, moist, medium dense; fine- to coarse-grained sand
							CL-ML	SILTY CLAY, light gray, moist, stiff
20		21	23.6	98.5				
							ML	SANDY SILT, light gray, moist, stiff; fine-grained sand
								Total Depth = 21.5 feet Backfilled on 1/26/2011 Groundwater not encountered Backfilled with soil cuttings
25								
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 10 Sheet 1 of 1

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/26/11 | LOGGED BY NJN | **BORING NO. 10**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
							ML	FILL: SILT, yellow brown, moist
							ML	ALLUVIUM: SILT, yellow brown, moist
5		34					SM	SILTY SAND, yellow brown, moist, dense; fine- to medium-grained sand; patchy dark orange to rust colored staining; white sand lenses
							SP	POORLY GRADED SAND, yellow brown, moist, dense; fine- to coarse-grained sand
10		45	7.8	112.4				
								increase fines
15		11			ATT, EI		CL	SANDY CLAY, brown to yellow brown, moist, stiff; fine-grained sand
							SP	POORLY GRADED SAND, orange brown, moist, dense; fine- to medium-grained sand
20		55	4.2	110.9	WASH			fine- to coarse-grained sand
							ML	SANDY SILT, orange brown, moist, stiff; fine-grained sand; trace medium- to coarse-grained sand
25		35			GS			
30		75/11	5.3	125.3				
35								

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 11 Sheet 1 of 2

DATE DRILLED	1/26/11	LOGGED BY	NJN	**BORING NO.**	**10**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NA
DRILLING METHOD	8" HSA	DRILLER	ABC LIOVIN	SURFACE ELEVATION (ft.)	Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
		81					SP	POORLY GRADED SAND WITH SILT, orange brown, moist, very dense; fine-grained sand
								less fines
40		58	15.1	109.9			ML	SILT WITH SAND, brown to olive brown, moist, hard; fine-grained sand; trace medium- to coarse-grained sand; dark orange veins
							SP	POORLY GRADED SAND, light orange brown, moist, very dense; fine- to medium-grained sand; few coarse-grained sand
45		57			WASH			
50		87	17.2	106.3				
							ML	SANDY SILT, brown to yellow brown, moist, hard; fine-grained sand
								Total Depth = 51.5 feet Backfilled on 1/26/2011 Groundwater not encountered Backfilled with soil cuttings
55								
60								
65								
70								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 11 Sheet 2 of 2

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED	1/26/11	LOGGED BY	NJN	**BORING NO.**	**11**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NA
DRILLING METHOD	8" HSA	DRILLER	ABC LIOVIN	SURFACE ELEVATION (ft.)	Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
						ML	1-inch asphalt concrete
						ML	FILL: SILT, orange brown, moist ALLUVIUM: SILT, orange brown, moist
5		25				SM	SILTY SAND, brown to yellow brown, moist, dense; lenses of medium to coarse-grained sand
10		73	8.1	104.6		SP	POORLY GRADED SAND, light orange brown, moist, very dense; fine- to medium-grained sand; some coarse-grained sand
15		37	12.8	114.8			
						SM	SILTY SAND, brown to yellow brown, moist, dense; fine-grained sand; some medium-grained sand; orange and dark brown staining
20		40					
							Total Depth = 21.5 feet Backfilled on 1/26/2011 Groundwater not encountered Backfilled with soil cuttings
25							
30							
35							

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 12 Sheet 1 of 1

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED	1/26/11	LOGGED BY	NJN	**BORING NO.**	**12**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NA
DRILLING METHOD	8" HSA	DRILLER	ABC LIOVIN	SURFACE ELEVATION (ft.)	Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
							ML	1-inch thick asphalt pavement
					CORR		ML	FILL: SILT, dark brown, moist
							CL-ML	ALLUVIUM: SILT, dark brown, moist SILTY CLAY, light gray brown, moist
5		12					SM	SILTY SAND, yellow brown, moist, medium dense; fine-grained sand; few medium- to coarse-grained sand
10		9	35.9	82.0			CL-ML	SILTY CLAY WITH SAND, olive brown, moist, medium stiff; fine-grained sand; trace medium-grained sand
15		9					CL	LEAN CLAY, gray to white gray, very moist, stiff; cemented nodules
							SP	POORLY GRADED SAND WITH SILT, yellow brown, moist, dense, fine- to medium-grained sand
20		44	11.2	117.6			SM	SILTY SAND, yellow brown, moist, dense; fine-grained sand
								Total Depth = 21.2 feet Backfilled on 1/26/2011 Groundwater not encountered Backfilled with soil cuttings
25								
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 13 Sheet 1 of 1

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED 1/26/11 | LOGGED BY NJN | **BORING NO. 13**

DRIVE WEIGHT 140 lbs. | DROP 30 inches | DEPTH TO GROUNDWATER (ft.) NA

DRILLING METHOD 8" HSA | DRILLER ABC LIOVIN | SURFACE ELEVATION (ft.) Not Recorded +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
					GS		CL	ALLUVIUM: SANDY CLAY, brown, moist; fine-grained sand
							SM	SILTY SAND, brown to yellow brown, moist, dense; fine- to medium-grained sand
5		47	12.4	114.8				
							CL-ML	SILTY CLAY, yellow brown, moist, stiff
10		13						
15		29	21.1	104.1				
							SM	SILTY SAND, orange brown, moist, medium dense; fine-grained sand
20		16						
								Total Depth = 21.5 feet Backfilled on 1/26/2011 Groundwater not encountered Backfilled with soil cuttings
25								
30								
35								

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 14 Sheet 1 of 1

BORING LOG 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

DATE DRILLED	1/26/11	LOGGED BY	NJN	**BORING NO.**	**14**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NA
DRILLING METHOD	8" HSA	DRILLER	ABC LIOVIN	SURFACE ELEVATION (ft.)	Not Recorede +(MSL)

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
0						ML	ALLUVIUM: SILT WITH SAND, brown, moist; fine-grained sand
5		36	18.6	92.5			trace medium- to coarse-grained sand
						SM	SILTY SAND, gray brown to olive brown, moist, dense; fine-grained sand; few medium- to coarse-grained sand
10		11				SP	POORLY GRADED SAND WITH SILT, orange brown, moist, medium dense, fine- to medium-grained sand
15		38	18.2	108.5			dense; lenses of coarse-grained sand
							light orange brown; fine- to coarse-grained sand; decrease fines
20		35					
							Total Depth = 21.5 feet Backfilled on 1/26/2011 Groundwater not encountered Backfilled with soil cuttings
25							
30							
35							

TWINING LABORATORIES

LOG OF BORING

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	A - 15 Sheet 1 of 1

BORING LOG 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

APPENDIX B

LABORATORY TESTING

Appendix B
Laboratory Testing

Laboratory Moisture Content and Density Tests

The moisture contents and dry densities of intact driven samples obtained from the exploratory borings were evaluated in general accordance with the latest version of ASTM D2937. The test results are presented on the logs of the exploratory borings in Appendix A and also summarized in Table B-1.

Wash Sieve

No. 200 wash sieves conducted in accordance with the latest version of ASTM D 1140 were performed to evaluate the amount of fines to aid in the classification of the soil. The results of the No. 200 wash sieves are presented in Table B-2.

Atterberg Limits

Plasticity index testing was performed on selected samples obtained from the borings to evaluate plasticity characteristics and to aid in the classification of the soil. The tests were performed in general accordance with ASTM D 4318. The results are presented on Figure B-1.

Grain Size Distribution

The grain-size distribution of selected samples was evaluated by sieving and hydrometer. The tests were performed in general accordance with ASTM C 136 and D 422. The results are presented on Figures B-2 through B-5.

Direct Shear Tests

Direct shear tests were performed on selected intact driven samples and samples remolded to approximately 90 percent of the maximum dry density in general accordance with the latest version of ASTM D 3080 to evaluate the shear strength characteristics of the selected materials. The samples were inundated during shearing to represent adverse field conditions. Test results are presented on Figures B-6 through B-11.

Consolidation Test

Consolidation tests were performed on selected driven soil samples in general accordance with the latest version of ASTM D 2435. The samples were inundated during testing to represent adverse field conditions. The percent consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the samples. The results of the test are presented on Figures B-12 and B-13.

Maximum Dry Density-Optimum Moisture Content

Selected bulk samples were tested to evaluate the maximum dry density and optimum moisture content. The tests were performed in general accordance with ASTM D 1557. The results are presented on Figures B-14 through B-16.

Expansion Index

The expansion index of selected soil samples was evaluated in general accordance with ASTM D 4829. The specimens were molded under a specified compactive energy at approximately 50 percent saturation. The prepared 1-inch thick by 4-inch diameter specimens were loaded with a surcharge of 144 pounds per square foot and were

inundated with tap water. Readings of volumetric swell were made for a period of 24 hours. The results of this test are presented on Table B-3.

Soil Corrosivity Tests

Soil pH and resistivity tests were performed on representative soil samples in general accordance with the latest version of California Test Method 643. The chloride content of selected samples was evaluated in general accordance with the latest version of California Test Method 422. The sulfate content of selected samples was evaluated in general accordance with the latest version of California Test Method 417. The test results are also presented on Table B-4.

Resistance Value (R-Value)

R-value testing was performed on three samples of the near-surface soils encountered at the site. The tests were performed in general accordance with Caltrans Standard Test Method 301 or ASTM D2844. The testing was performed by S & T Engineering, Inc. in the City of Industry, California. The results are summarized in Table B-5.

Table B-1
Laboratory Moisture Content and Dry Density

Boring No.	Depth (feet)	Moisture Content (%)	Dry Unit Weight (pcf)
B-1	5	11.5	84.7
B-1	15	16.7	97.9
B-2	5	5.9	99.6
B-2	15	7.3	109.3
B-2	15.5	22.8	95.5
B-2	25	8.1	121.3
B-2	35	2.5	109.6
B-2	45	2.2	111.2
B-3	5	13.6	98.8
B-3	15	7.8	111.5
B-4	10	8.0	111.5
B-4	20	6.0	113.1
B-5	5	31.0	74.4
B-5	15	5.7	117.9
B-6	10	9.4	107.1
B-6	20	12.2	117.9
B-7	10	18.1	94.4
B-7	20	23.3	104.0
B-8	5	14.0	101.1
B-8	15	41.4	75.4
B-9	10	12.7	110.6
B-9	20	23.6	98.5
B-10	10	7.8	112.4
B-10	20	4.2	110.9
B-10	30	5.3	125.3
B-10	40	15.1	109.9
B-10	50	17.2	106.3
B-11	10	8.1	104.6
B-11	15	12.8	114.8
B-12	10	35.9	82.0
B-12	20	11.2	117.6
B-13	5	12.4	114.8
B-13	15	21.1	104.1
B-14	5	18.6	92.5
B-14	15	18.2	108.5

pcf = pounds per cubic foot

Table B-2
No. 200 Wash Sieve Results

Boring No.	Depth (feet)	Percent Passing #200
B-2	35	7.0
B-2	45	4.4
B-8	0-5	50.8
B-10	20	5.8
B-10	45	8.2

Table B-3
Expansion Index Test Result

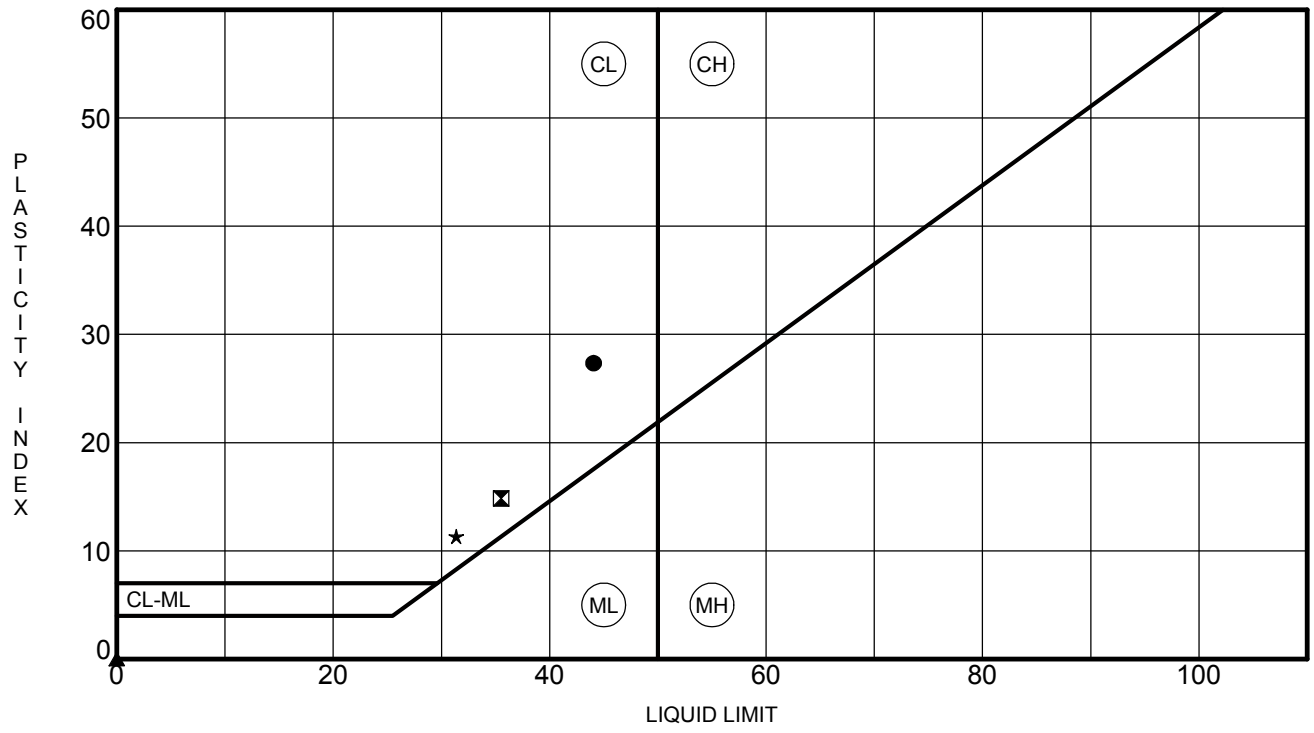
Boring No.	Depth (feet)	Expansion Index	Expansion Potential Description
B-3	0-5	45	Low
B-6	0-5	9	Very low
B-9	0-5	36	Low

Table B-4
Corrosivity Test Results

Boring No.	Depth (feet)	pH	Water Soluble Sulfate (%)	Water Soluble Chloride (%)	Minimum Resistivity (ohm-cm)
B-1	0-7	6.8	0.3329	0.2734	600 max
B-2	0-5	7.5	0.0243	0.0329	1,606
B-6	0-5	6.8	0.0189	0.0111	16,060
B-12	0-5	6.5	0.6493	0.0871	600 max

Table B-5
R-Value Test Result (at 300 psi exudation pressure)

Boring No.	Depth (feet)	Soil Description	R-Value
B-1	0-7	SILT (ML)	16
B-6	0-5	LEAN CLAY (CL)	9
B-7	0-5	SILTY SAND (SM)	21



	Sample Location	LL	PL	PI	U.S.C.S. Classification
●	**2 at 15 ft**	**44**	**17**	**27**	**LEAN CLAY (CL)**
⊠	**6 at 0-5 ft**	**36**	**21**	**15**	**LEAN CLAY (CL)**
▲	**8 at 0-5 ft**	**NP**	**NP**	**NP**	**SILT (ML)**
★	**10 at 15 ft**	**31**	**20**	**11**	**SANDY LEAN CLAY (CL)**

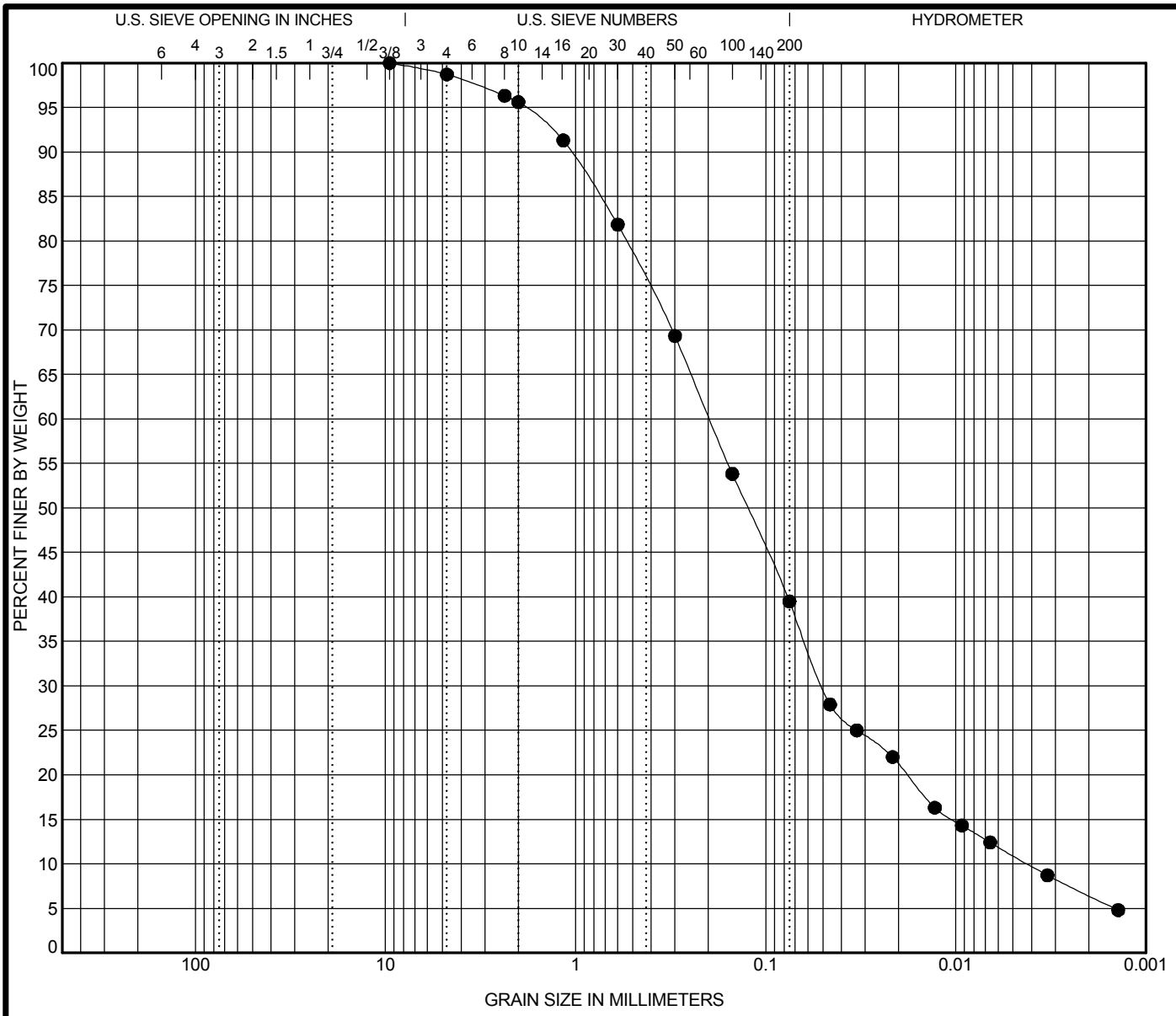
TWINING LABORATORIES

ATTERBERG LIMITS

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-1

ATTERBERG LIMITS 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/17/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample Location	U.S.C.S. Classification	Cc	Cu
● **2 at 40 ft**	**SILTY SAND (SM)**	**3.02**	**46.95**

D_{100}	D_{60}	D_{50}	D_{30}	D_{10}	%Gravel	%Sand	%Silt	%Clay
9.5	**0.198**	**0.125**	**0.05**	**0.004**	**1.3**	**59.2**	**28.6**	**10.9**

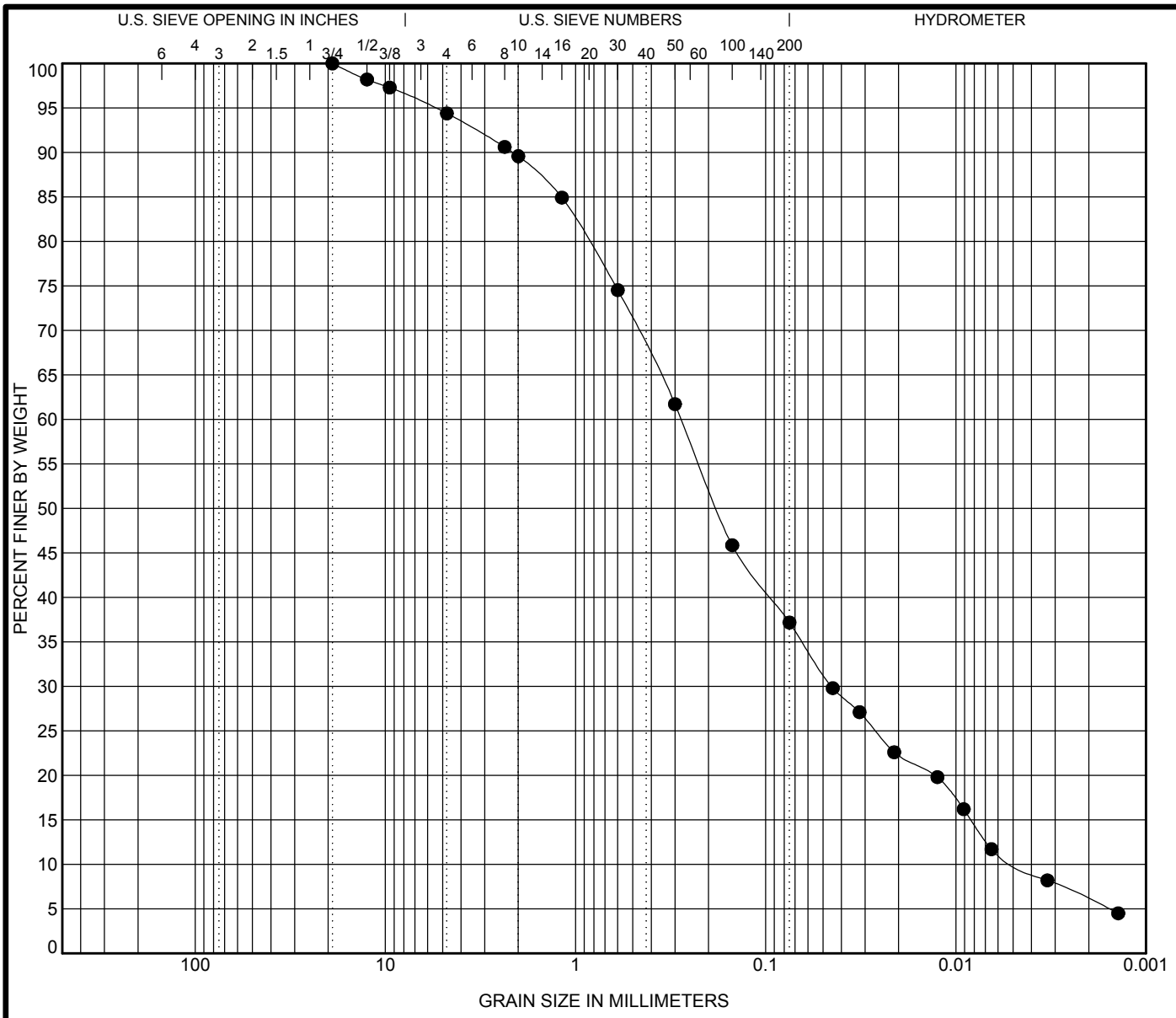
TWINING LABORATORIES

GRAIN SIZE DISTRIBUTION

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B- 2

GRAIN SIZE 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample Location	U.S.C.S. Classification	Cc	Cu
● 7 at 0-5 ft	**SILTY SAND WITH GRAVEL (SM)**	**1.56**	**59.51**

D_{100}	D_{60}	D_{50}	D_{30}	D_{10}	%Gravel	%Sand	%Silt	%Clay
19	**0.278**	**0.18**	**0.045**	**0.005**	**5.6**	**57.2**	**26.8**	**10.3**

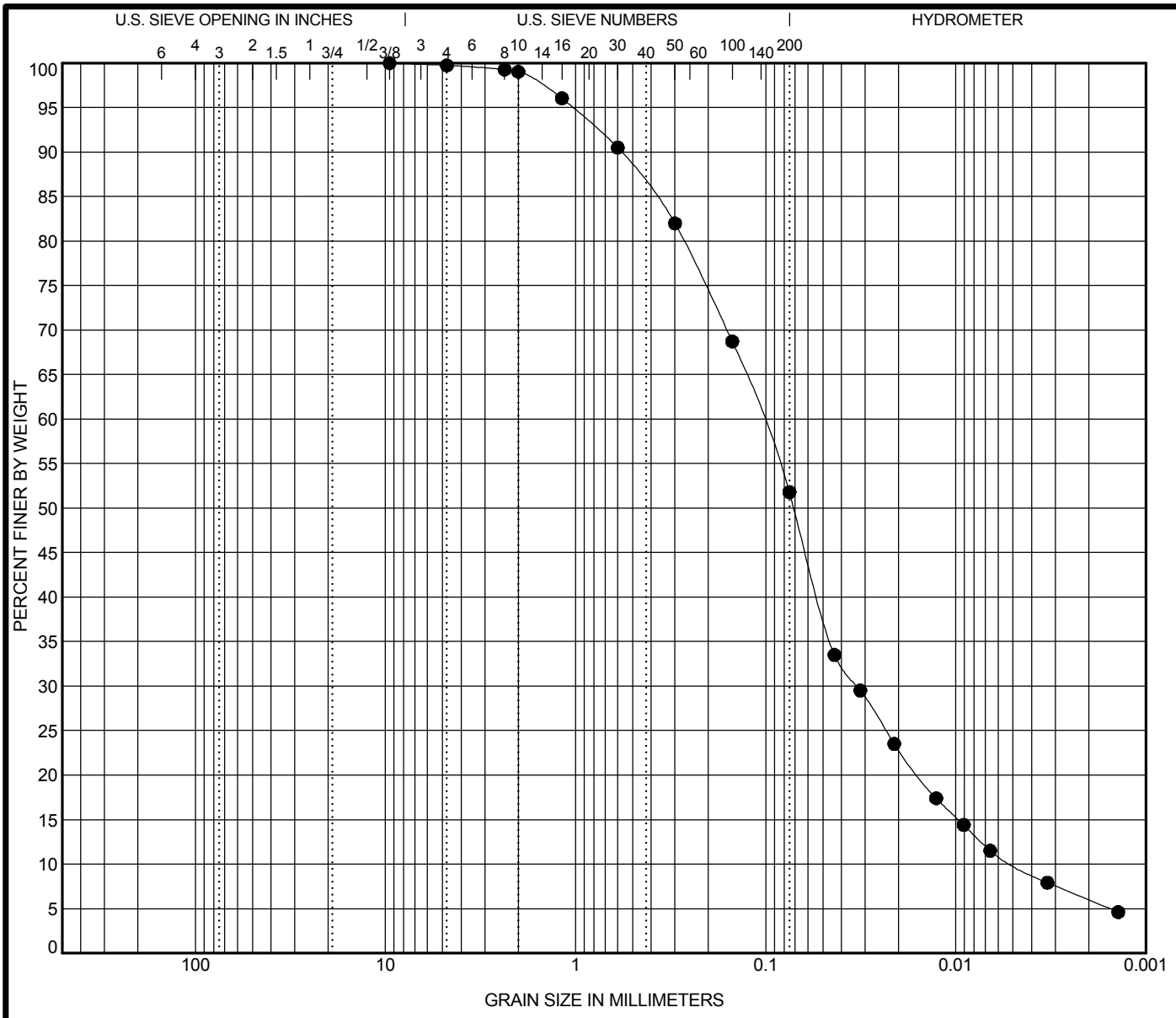
TWINING LABORATORIES

GRAIN SIZE DISTRIBUTION

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B- 3

GRAIN SIZE 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample Location	U.S.C.S. Classification	Cc	Cu
● **10 at 25 ft**	**SANDY SILT (ML)**	**2.11**	**21.23**

D_{100}	D_{60}	D_{50}	D_{30}	D_{10}	%Gravel	%Sand	%Silt	%Clay
9.5	**0.105**	**0.071**	**0.033**	**0.005**	**0.2**	**48.0**	**41.7**	**10.1**

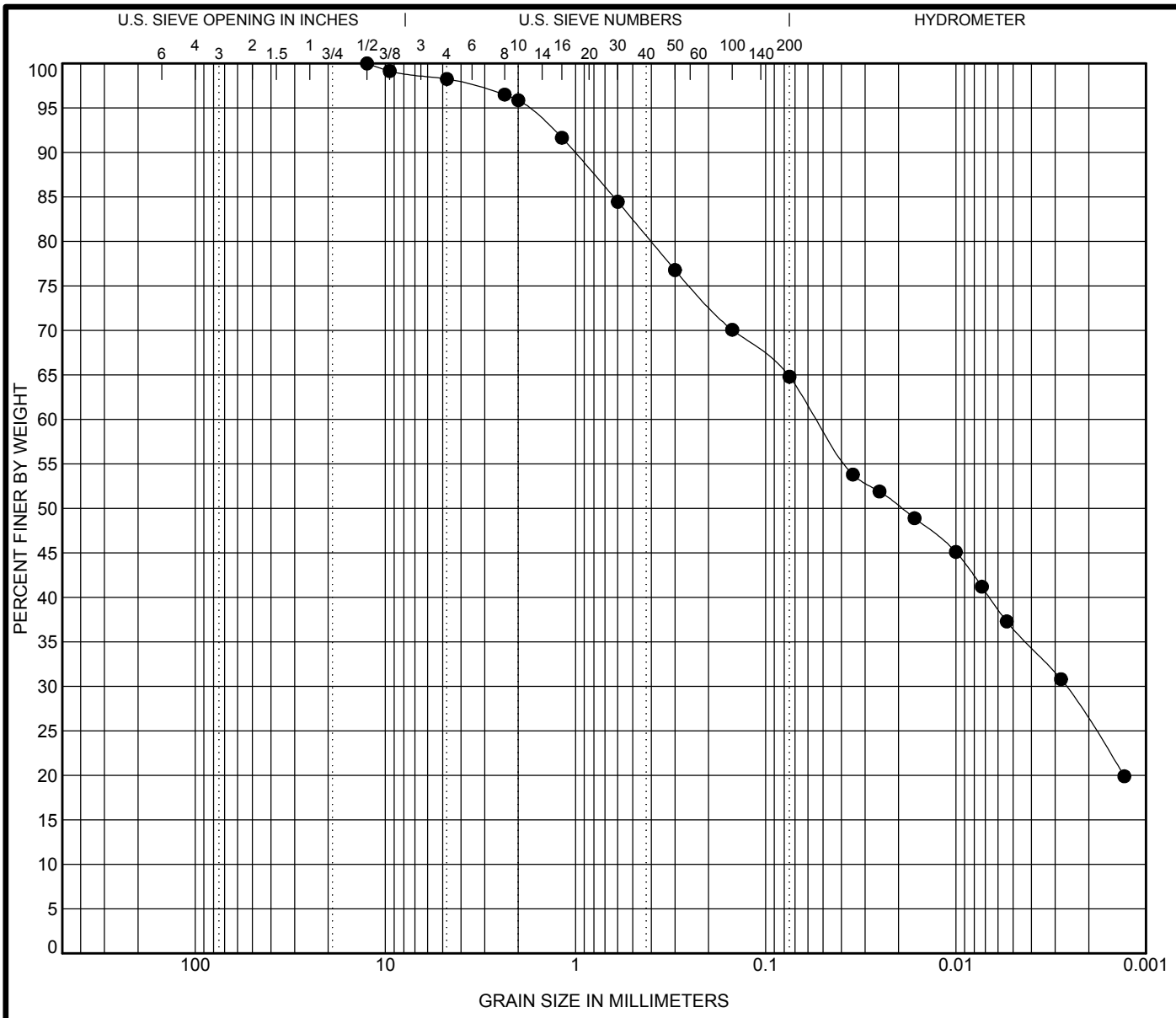
TWINING LABORATORIES

GRAIN SIZE DISTRIBUTION

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B- 4

GRAIN SIZE 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample Location	U.S.C.S. Classification	Cc	Cu
● 13 at 0-5 ft	SANDY CLAY (CL)		

D_{100}	D_{60}	D_{50}	D_{30}	D_{10}	%Gravel	%Sand	%Silt	%Clay
12.5	0.054	0.019	0.003		1.8	33.4	28.3	36.5

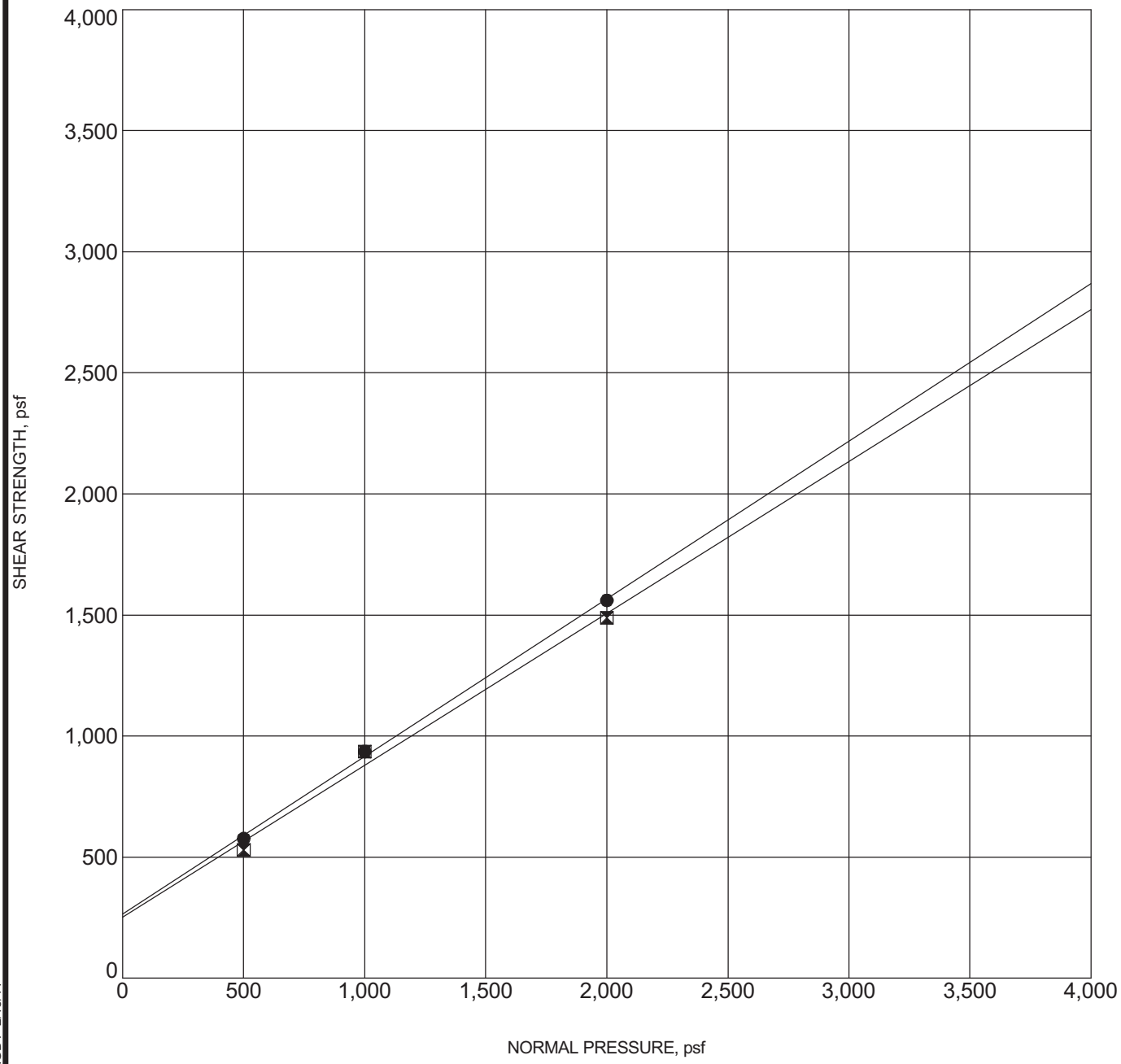
TWINING LABORATORIES

GRAIN SIZE DISTRIBUTION

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B- 5

GRAIN SIZE 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Shear Strength Parameters

	Peak	Ultimate
Cohesion, C (psf):	265	250
Friction Angle, Ø (deg):	33	32

Boring No.: 1
Sample Depth (ft): 5
Sample Description: SILT (ML)
Strain Rate (in./min): 0.005
Dry Density (pcf): 84.7

Initial Moisture (%): 11.5
Final Moisture (%): 27.5

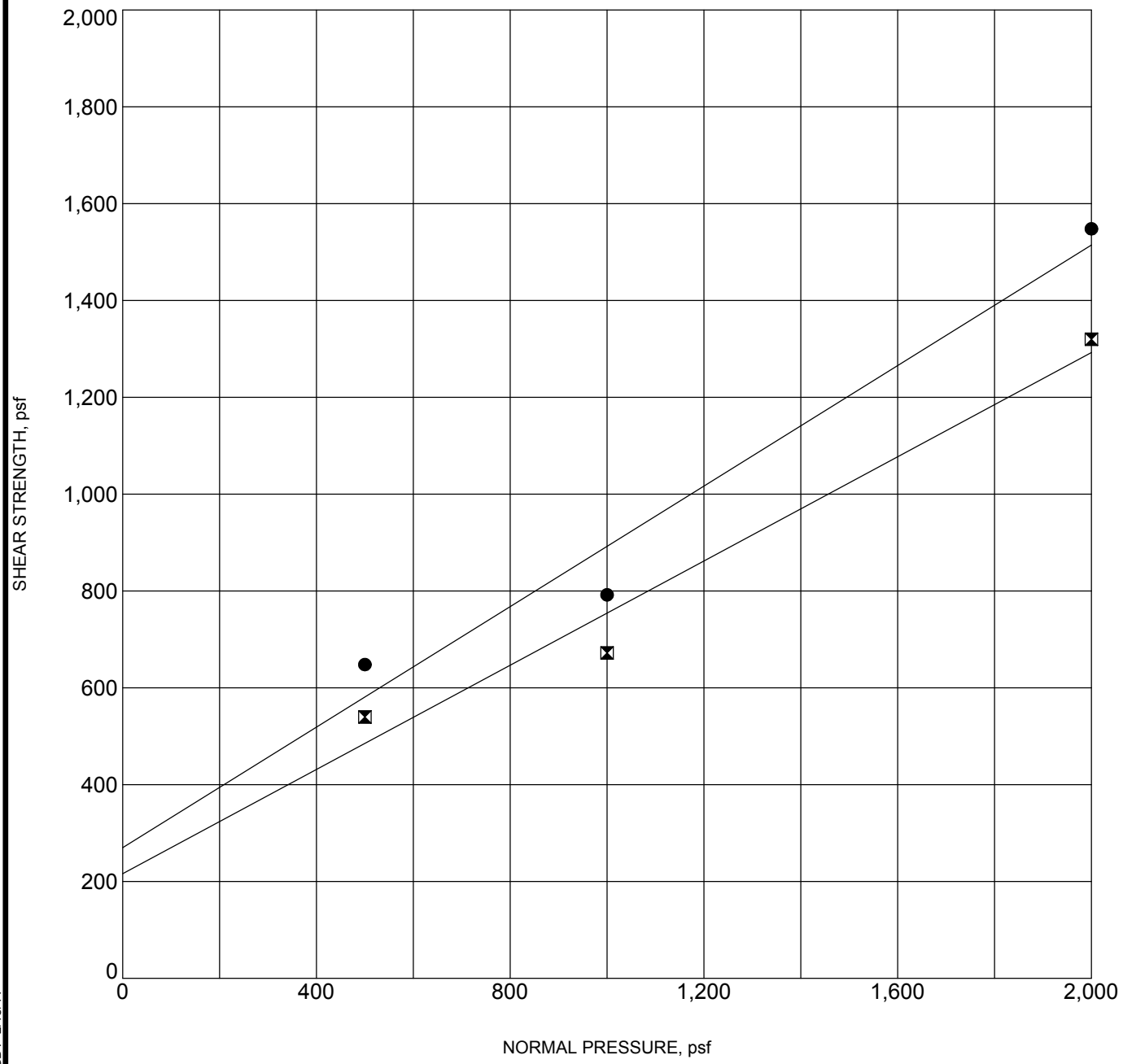
TWINING LABORATORIES

DIRECT SHEAR TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-6

DIRECT SHEAR 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Shear Strength Parameters

	Peak	Ultimate
Cohesion, C (psf):	270	215
Friction Angle, Ø (deg):	32	28

Boring No.: 2
Sample Depth (ft): 0-5 feet
Sample Description: SILTY SAND (SM)
Strain Rate (in./min): 0.005
Dry Density (pcf): 111.9

Initial Moisture (%): 10.4
Final Moisture (%): 17.1

Remolded to 90 percent relative compaction

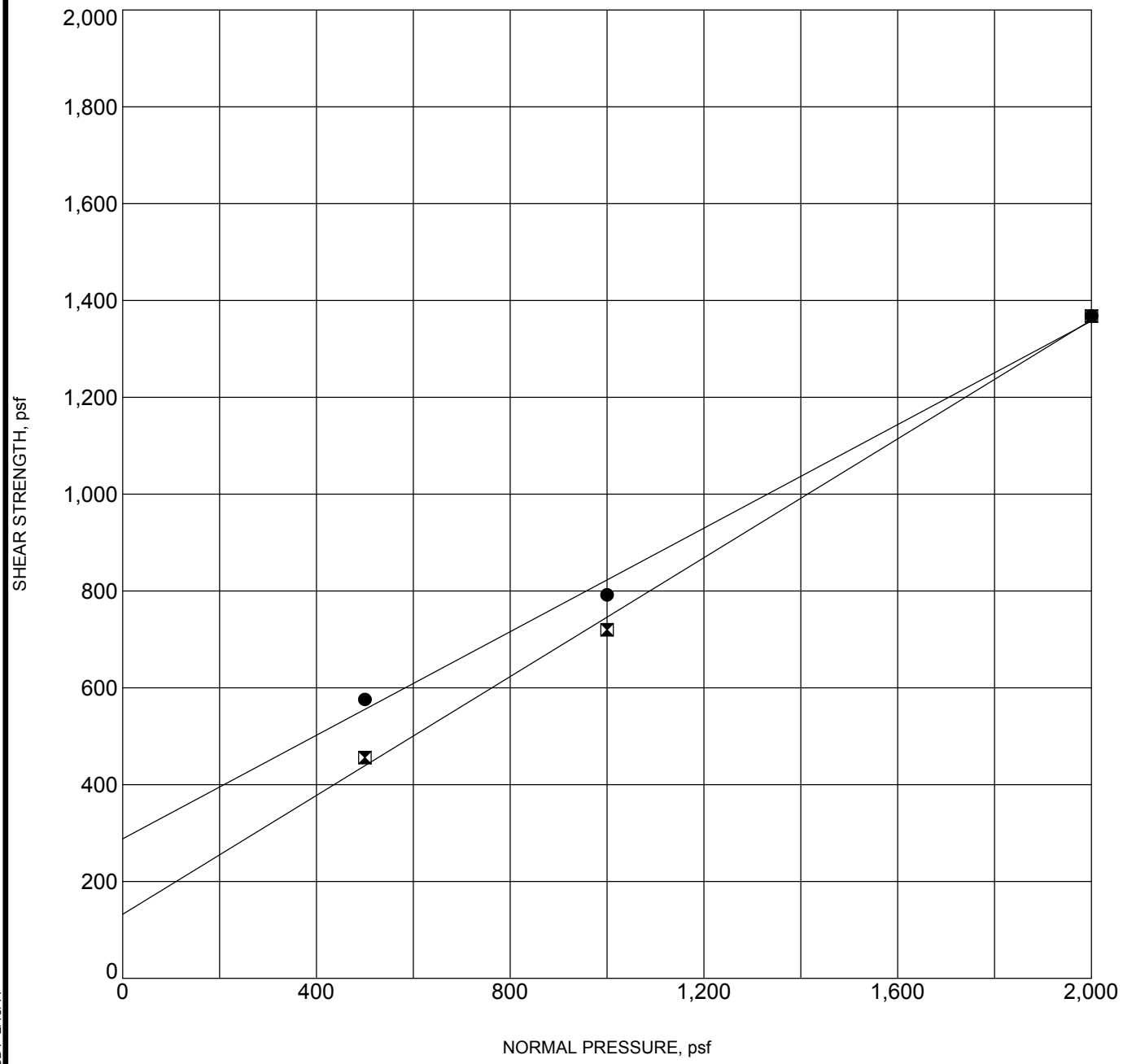
TWINING LABORATORIES

DIRECT SHEAR TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-7

DIRECT SHEAR 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Shear Strength Parameters

	Peak	Ultimate
Cohesion, C (psf):	290	130
Friction Angle, Ø (deg):	28	32

Boring No.: 5
Sample Depth (ft): 0-5 feet
Sample Description: SILT (ML)
Strain Rate (in./min): 0.005
Dry Density (pcf): 88.5

Initial Moisture (%): 20.0
Final Moisture (%): 30.2

Remolded to 90 percent relative compaction

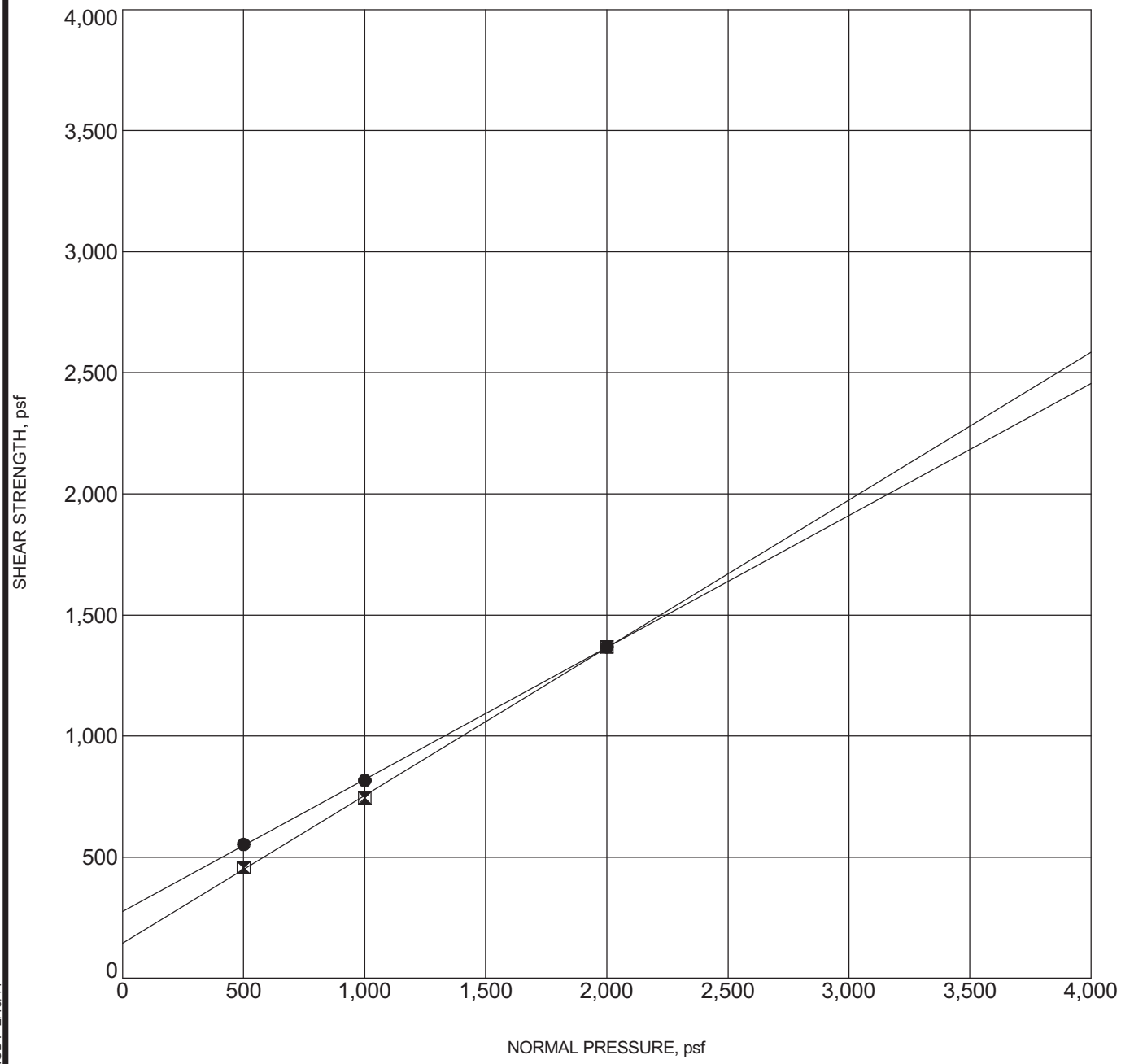
TWINING LABORATORIES

DIRECT SHEAR TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-8

DIRECT SHEAR 110451 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Shear Strength Parameters

	Peak	Ultimate
Cohesion, C (psf):	275	145
Friction Angle, Ø (deg):	29	31

Boring No.: 5
Sample Depth (ft): 5
Sample Description: SILT (ML)
Strain Rate (in./min): 0.005
Dry Density (pcf): 74.4

Initial Moisture (%): 31.0
Final Moisture (%): 43.6

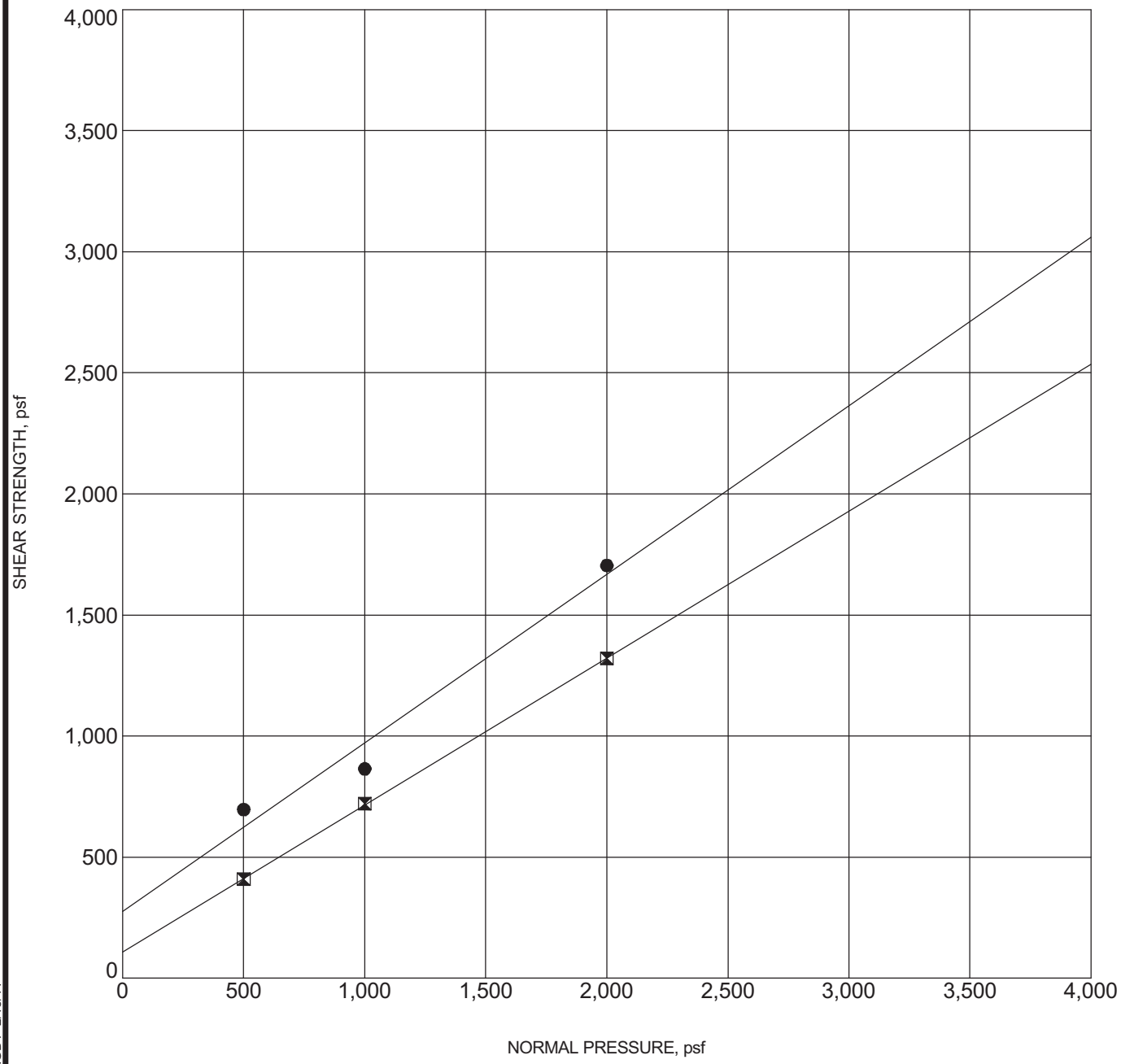
TWINING LABORATORIES

DIRECT SHEAR TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-9

DIRECT SHEAR 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Shear Strength Parameters

	Peak	Ultimate
Cohesion, C (psf):	275	110
Friction Angle, Ø (deg):	35	31

Boring No.: 8
Sample Depth (ft): 5
Sample Description: SILT (ML)
Strain Rate (in./min): 0.005
Dry Density (pcf): 101.1

Initial Moisture (%): 14.0
Final Moisture (%): 27.5

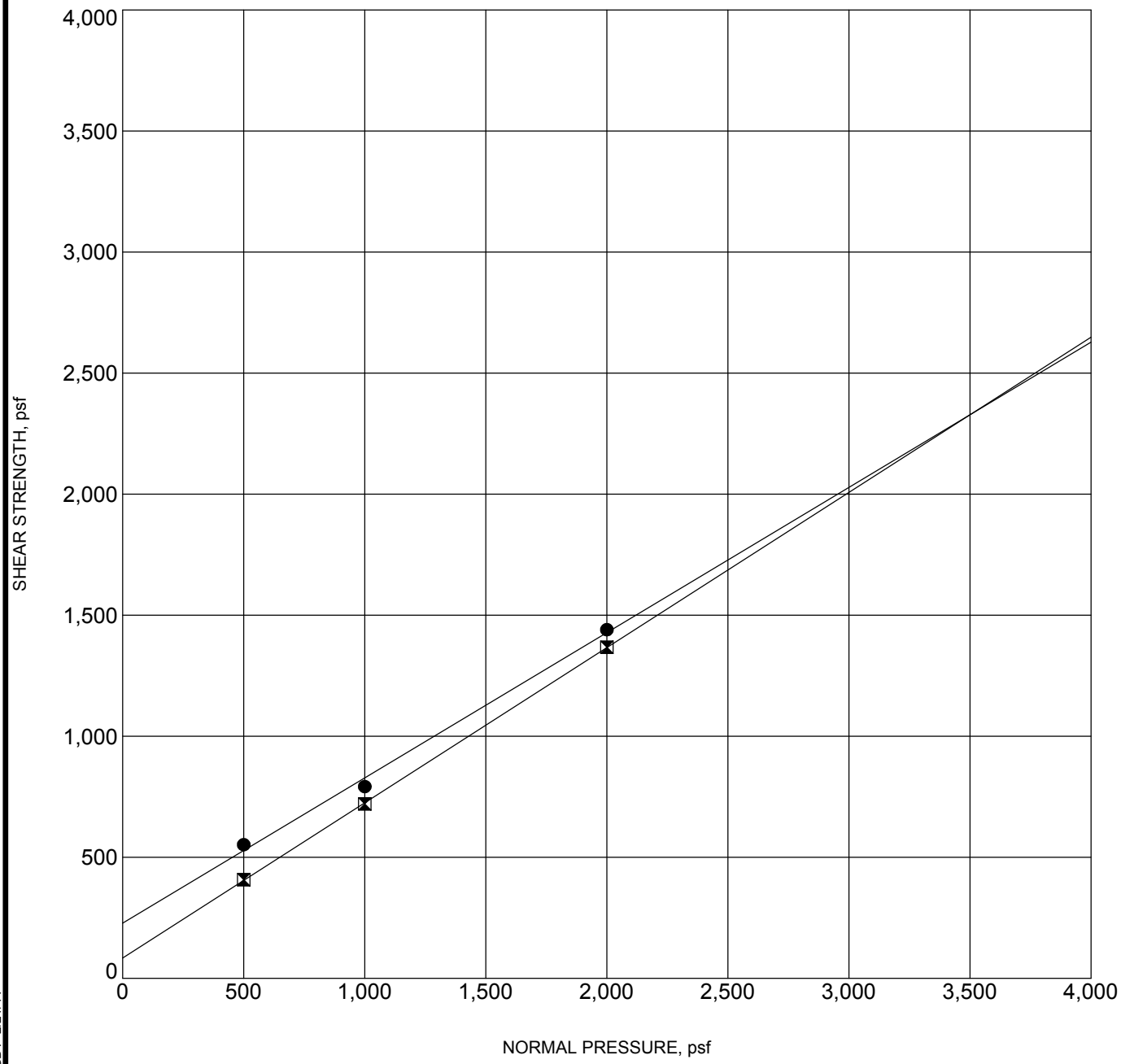
TWINING LABORATORIES

DIRECT SHEAR TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-10

DIRECT SHEAR 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Shear Strength Parameters

	Peak	Ultimate
Cohesion, C (psf):	230	85
Friction Angle, Ø (deg):	31	33

Boring No.: 9
Sample Depth (ft): 0-5 feet
Sample Description: SILT (ML)
Strain Rate (in./min): 0.005
Dry Density (pcf): 108.9

Initial Moisture (%): 11.4
Final Moisture (%): 20.3

Remolded to 90 percent relative compaction

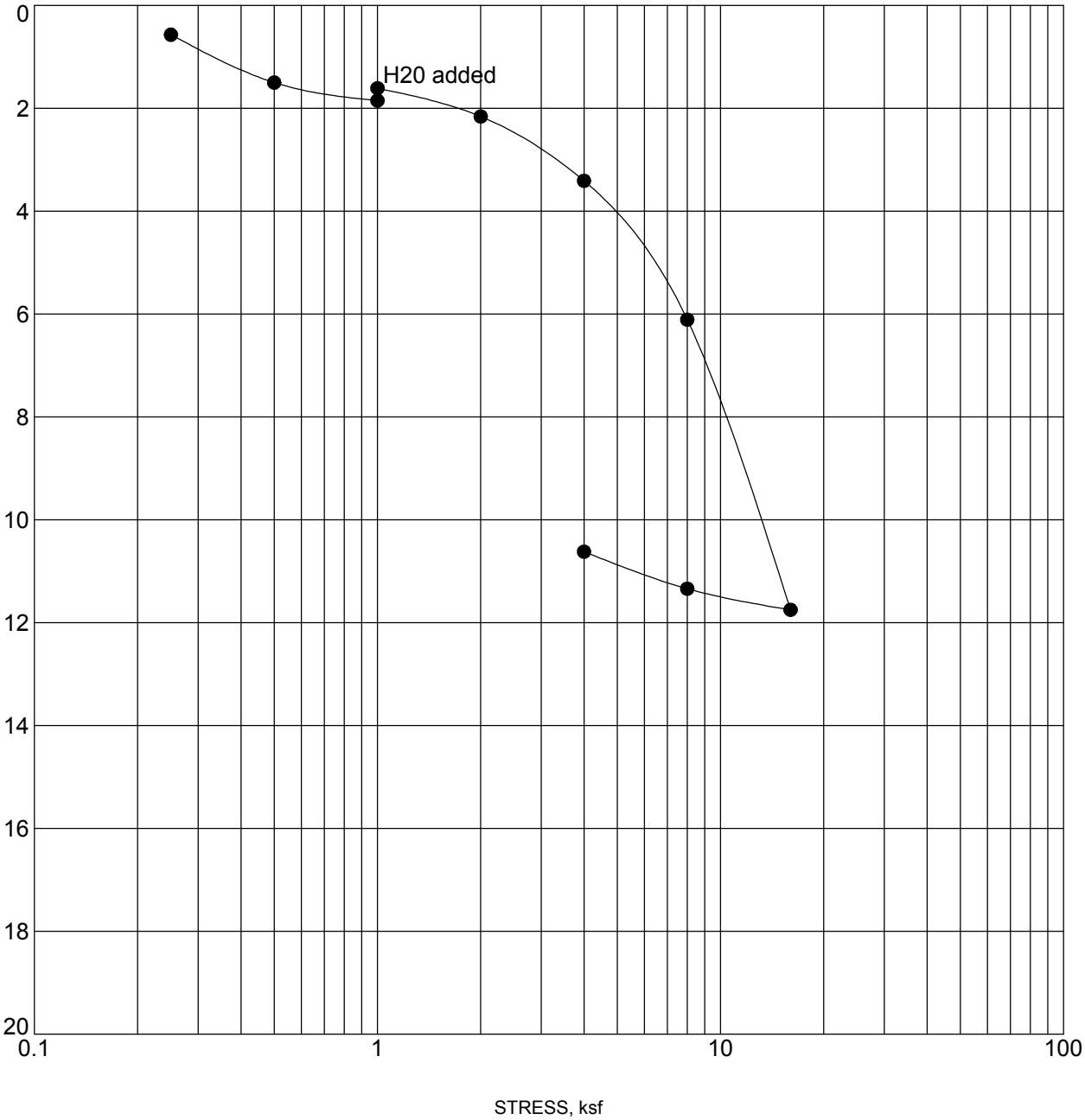
TWINING LABORATORIES

DIRECT SHEAR TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-11

DIRECT SHEAR 110045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/21/11



Sample Location	Soil Description	Dry Density (pcf)	Moisture Content (%)
● **7 at 10 ft**	**LEAN CLAY (CL)**	**87.5**	**18.1**

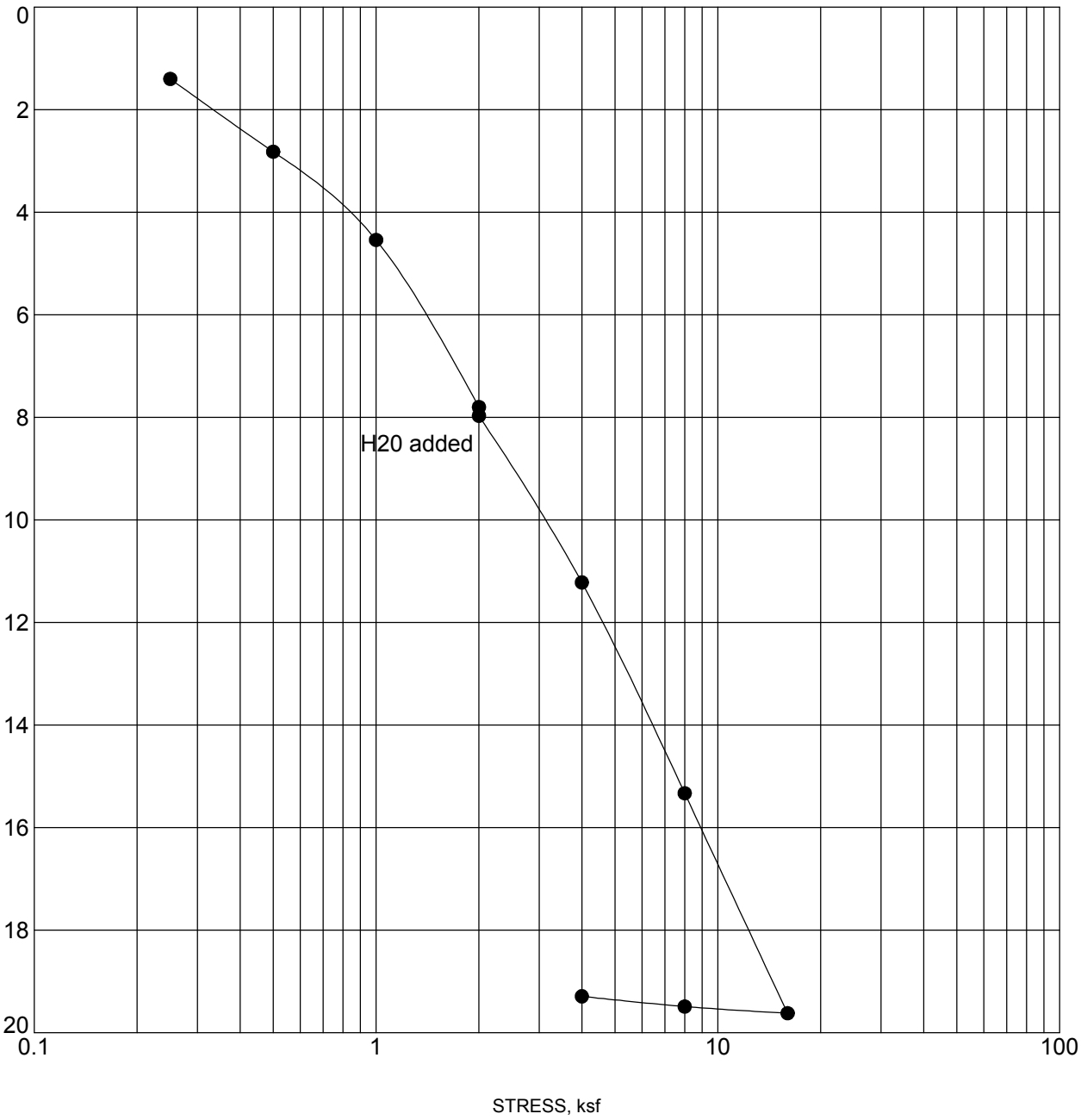
TWINING LABORATORIES

CONSOLIDATION TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-12

CONSOL STRAIN 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Sample Location	Soil Description	Dry Density (pcf)	Moisture Content (%)
● **8 at 15 ft**	**LEAN CLAY (CL)**	**77.2**	**41.4**

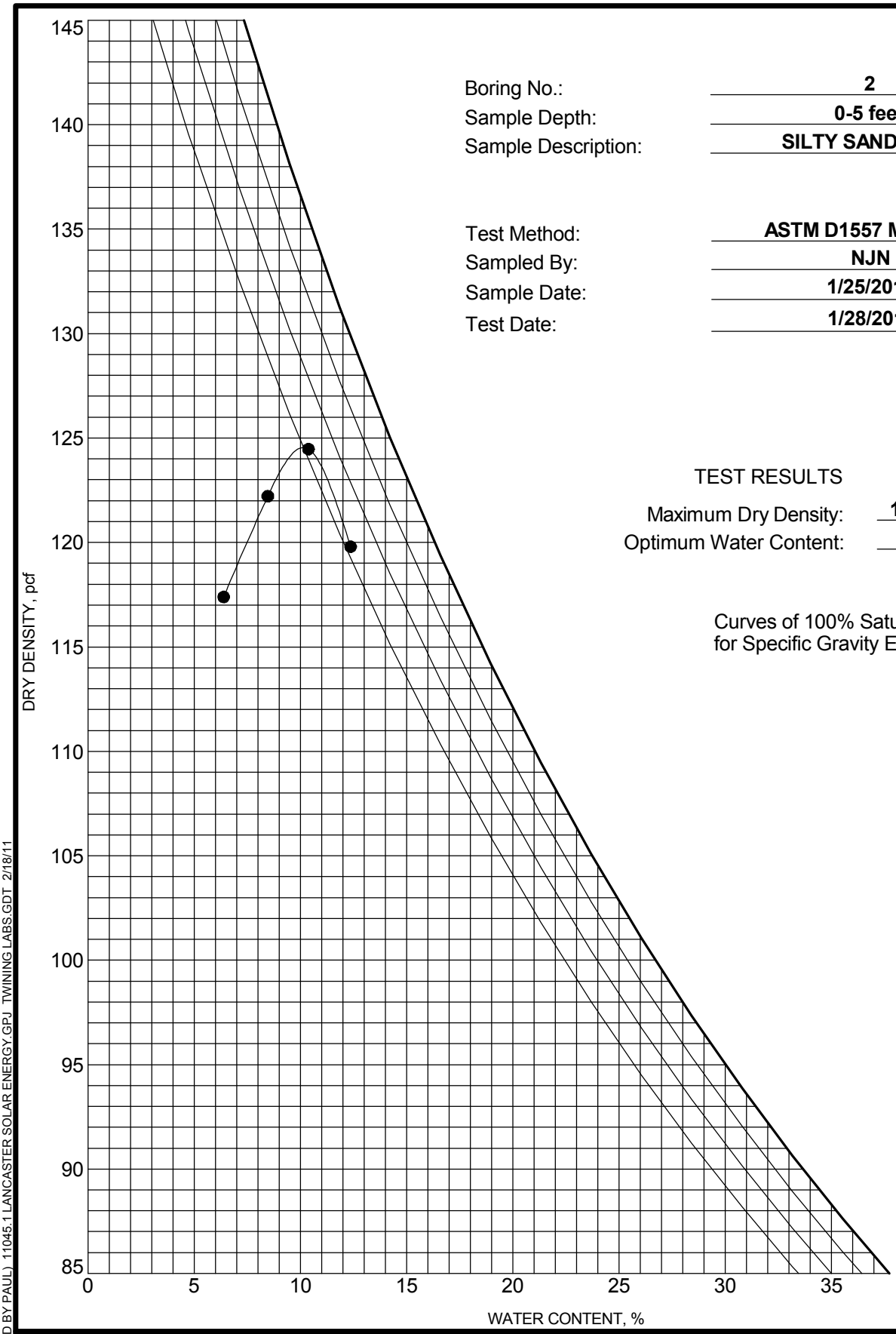
TWINING LABORATORIES

CONSOLIDATION TEST

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-13

CONSOL STRAIN 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Boring No.:	**2**
Sample Depth:	**0-5 feet**
Sample Description:	**SILTY SANDY (SM)**
Test Method:	**ASTM D1557 Method A**
Sampled By:	**NJN**
Sample Date:	**1/25/2011**
Test Date:	**1/28/2011**

TEST RESULTS

Maximum Dry Density:	**124.5** pcf
Optimum Water Content:	**10.0** %

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

2.50

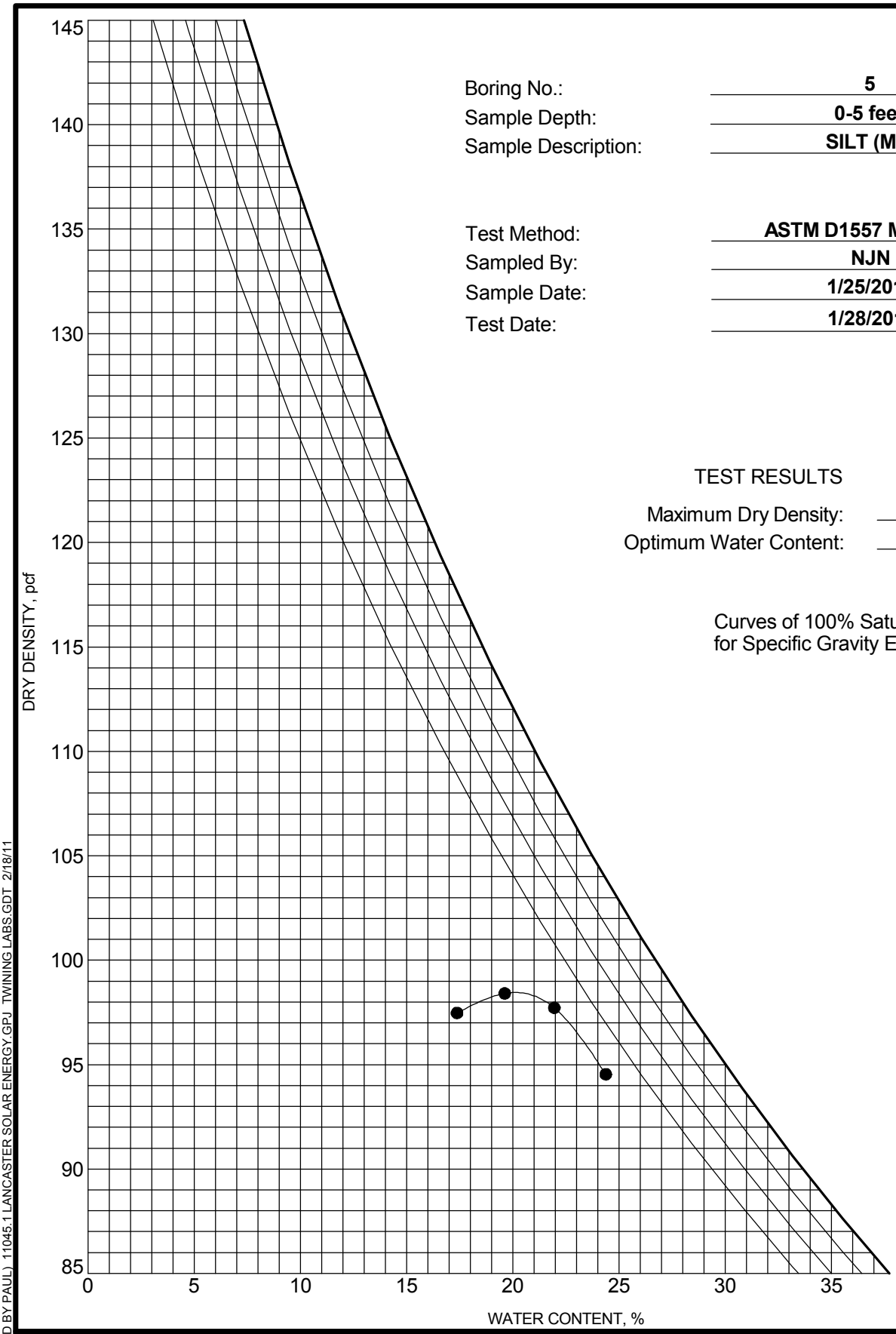
TWINING LABORATORIES

MOISTURE-DENSITY RELATIONSHIP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-14

COMPACTION (MODIFIED BY PAUL) 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Boring No.:	**5**
Sample Depth:	**0-5 feet**
Sample Description:	**SILT (ML)**
Test Method:	**ASTM D1557 Method A**
Sampled By:	**NJN**
Sample Date:	**1/25/2011**
Test Date:	**1/28/2011**

TEST RESULTS

Maximum Dry Density:	**98.5** pcf
Optimum Water Content:	**20.0** %

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

2.50

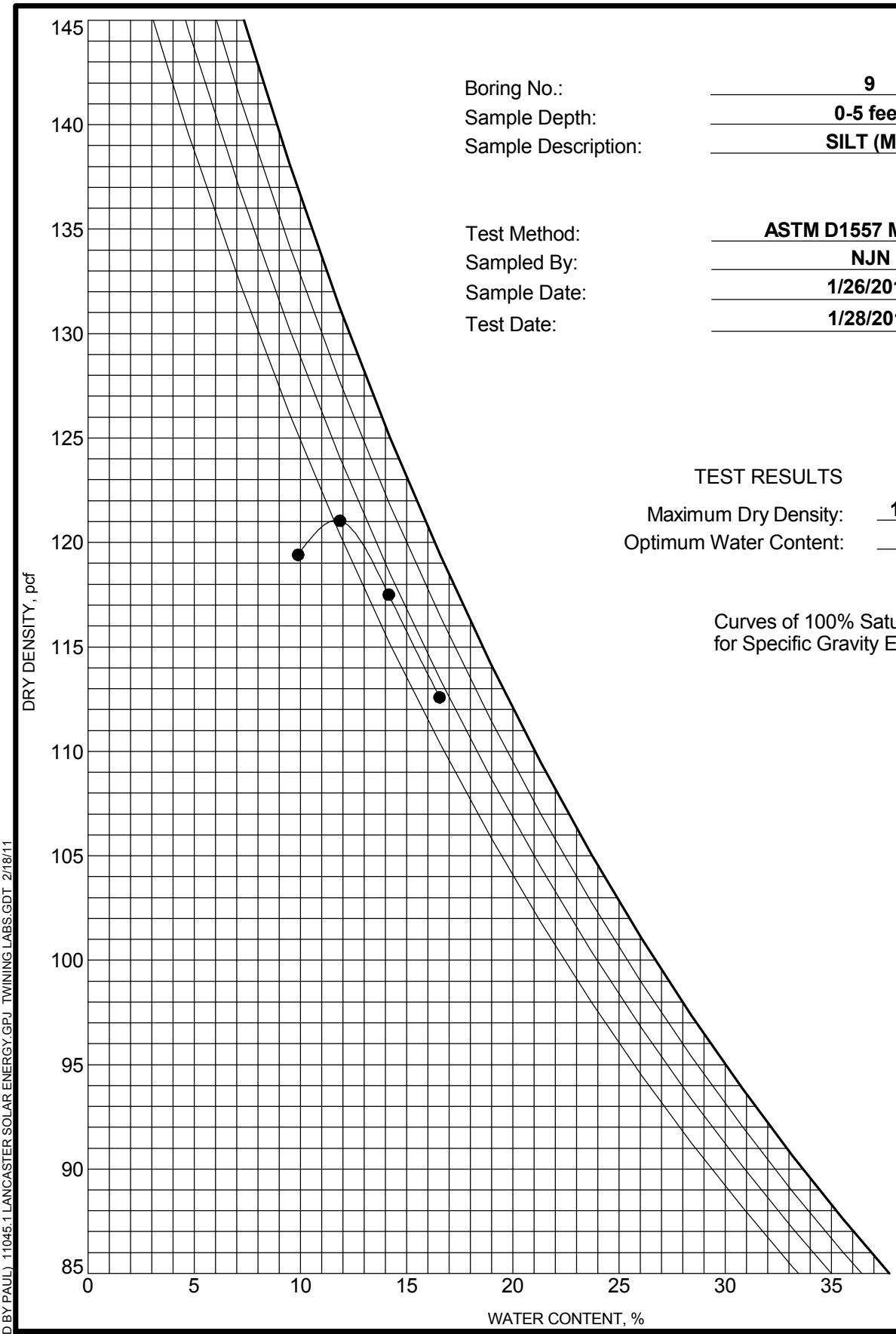
TWINING LABORATORIES

MOISTURE-DENSITY RELATIONSHIP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-15

COMPACTION (MODIFIED BY PAUL) 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11



Boring No.:	**9**
Sample Depth:	**0-5 feet**
Sample Description:	**SILT (ML)**
Test Method:	**ASTM D1557 Method A**
Sampled By:	**NJN**
Sample Date:	**1/26/2011**
Test Date:	**1/28/2011**

TEST RESULTS

Maximum Dry Density:	**121.0** pcf
Optimum Water Content:	**11.5** %

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

2.50

TWINING LABORATORIES

MOISTURE-DENSITY RELATIONSHIP

Solar Energy Project
45100 60th Street West
Lancaster, California

PROJECT NO.	REPORT DATE	FIGURE
110045.1	February 2011	B-16

COMPACTION (MODIFIED BY PAUL) 11045.1 LANCASTER SOLAR ENERGY.GPJ TWINING LABS.GDT 2/18/11

APPENDIX C

LIQUEFACTION ANALYSIS

Liquefaction and Seismic Settlement Analysis using SPT (Revised)

Project Information

Project No.:	110045.1
Project Location:	Solar Farm

Analysis performed by:	SWP
Date:	2/20/2011
Reviewed by:	
Date:	

Boring Information

Soil Boring:	B-2	
Exist. grade elev:	2345.0	ft
Depth of GWT:	100.0	ft
Finished grade elev:	2345.0	ft
Borehole diameter:	6.0	inch
Hammer efficiency:	69.0	(80 % for autimatic trip drop, 60% for rope and cathead)

Design Data (Seismic data based on 2007 CBC)

EQ. Magnitude:	7.4		
Design a_{max}:	0.4	g	(Based on Design Basis earthquake, DBE)
Design GWT:	2245.0	ft	
Mag Scaling Factor:	1.05		

C_E	1.15
C_B	1.05

												Liquefaction Analysis															Seismic Settlement Analysis										
Depth below EG (ft)	Elev. (ft)	Depth below FG (ft)	Total unit weight (pcf)	Total stress below EG (psf)	Effective stress below EG (psf)	Total stress below FG (psf)	Effective stress based on FG & design GWT (psf)	Sampler Type SPT=1 MC = 2	Sample Liner Unlined =1 Lined = 2	Field Blow count N	Fines Content (%)	C_N	C_R	C_S	r_d	α	β	$(N_1)_{60\text{-}CS}$	PI	LL	water content %	USCS	If fine-grained exhibit clay like behavior[1]	If fine-grained potentially liquefiable[2]	CSR	CRR	Factor of Safety (FS_{liq})	Liquefy ?	Total stress at mid depth (psf)	Eff. stress at mid depth (psf)	Effective confining stress σ_m	$(N_1)_{60\text{-}CS}$	G_{max}	γ_{eff} (G_{eff}/G_{max})	τ_{av}/σ_0'	Shear Strain, γ_{eff} (%)	Vol. Strain (Dry) ε_v (%)	Vol. Strain (Sat.) ε_v (%)	Settlement of each layer (inch)	Total settlement (inch)
5.0	2340.0	5.0	105.5	528	528	528	528	2	2	55	4.4	1.70	0.75	1.0	0.988	0.00	1.00	53					NA	NA	0.26	High N	above GWT	No	264	264	176	53	9.98E+05	6.79E-05	0.25	-	-	-	0.0	0.0
10.0	2335.0	10.0	117.3	1114	1114	1114	1114	1	1	30	4.4	1.38	0.80	1.2	0.977	0.00	1.00	48					NA	NA	0.25	High N	above GWT	No	821	821	547	48	1.70E+06	1.23E-04	0.24	2.30E-02	1.32E-02	-	0.0	0.0
15.0	2330.0	15.0	117.3	1701	1701	1701	1701	2	2	9	70	1.12	0.85	1.0	0.965	5.00	1.20	13	27	44	22.8	CL	Yes	No	0.25	Clay like	above GWT	No	1407	1407	938	13	1.43E+06	2.46E-04	0.24	-	-	-	0.0	0.0
20.0	2325.0	20.0	117.3	2287	2287	2287	2287	1	1	7	70	0.96	0.95	1.2	0.953	5.00	1.20	16	27	44	22.8	CL	Yes	No	0.25	Clay like	above GWT	No	1994	1994	1329	16	1.84E+06	2.68E-04	0.24	-	-	-	0.0	0.0
25.0	2320.0	25.0	131	2942	2942	2942	2942	2	2	102	39.5	0.85	0.95	1.0	0.942	5.00	1.20	80					NA	NA	0.24	High N	above GWT	No	2615	2615	1743	80	3.60E+06	1.78E-04	0.23	2.89E-02	1.66E-02	-	0.0	0.0
30.0	2315.0	30.0	112.3	3504	3504	3504	3504	1	1	57	39.5	0.78	0.95	1.2	0.930	5.00	1.20	78					NA	NA	0.24	High N	above GWT	No	3223	3223	2149	78	3.96E+06	1.97E-04	0.23	3.11E-02	1.78E-02	-	0.0	0.0
35.0	2310.0	35.0	112.3	4065	4065	4065	4065	2	2	100	7	0.72	1.00	1.0	0.889	0.12	1.01	55					NA	NA	0.23	High N	above GWT	No	3784	3784	2523	55	3.83E+06	2.28E-04	0.22	3.80E-02	2.18E-02	-	0.0	0.0
40.0	2305.0	40.0	113.6	4633	4633	4633	4633	1	1	58	39.5	0.68	1.00	1.2	0.848	5.00	1.20	73					NA	NA	0.22	High N	above GWT	No	4349	4349	2899	73	4.50E+06	2.13E-04	0.21	3.36E-02	1.93E-02	-	0.0	0.1
45.0	2300.0	45.0	113.6	5201	5201	5201	5201	2	2	57	4.4	0.64	1.00	1.0	0.808	0.00	1.00	28					NA	NA	0.21	0.36	above GWT	No	4917	4917	3278	28	3.46E+06	2.98E-04	0.20	5.29E-02	6.94E-02	-	0.0	0.1
50.0	2295.0	50.0	113.6	5769	5769	5769	5769	1	1	46	4.4	0.61	1.00	1.2	0.767	0.00	1.00	40					NA	NA	0.20	High N	above GWT	No	5485	5485	3657	40	4.15E+06	2.64E-04	0.19	-	-	-	0.0	0.1

Notes:

EG = Existing grade; FG = Finished grade; MC = Modified California Sampler; GWT = Ground water table

[1] Based on Boulanger and Idriss (2006)

[2] Based on Seed at al. (2003)

References

Boulanger, R. W. and Idriss, I. M. (2006) "Liquefaction Susceptibility Criteria for Silts and Clays", Journal of Geotechnical and Geoenvironmental Engineering, Vol. 132, No. 11, pp. 1413-1426, ASCE.

Seed, R. B., Cetin, K. O., Moss, R. E. S., Krammerer, A. M., Wu, J., Pestana, J. M., Riemer, M. F., Sancio, R. B., Kayen, R. E., and Faris, A. (2003), "Recent Advances in Soil Liquefaction Engineering: A Unified and Consistent Framework", Keynote Presentation, 26th ASCE Los Angeles Geotechnical Spring Seminar, H.M.S. Queen Mary, Long Beach, California.

Youd et al. (2001) "Liquefaction resistance of soil: Summary report from the 1996 NCEER and 1998 NCEE/NSF Workshops on evaluation of liquefaction resistance of soils", Journal of Geotechnical and Geoenvironmental Engineering, Vol. 127, No. 10, ASCE.

"Recommended Procedures for Implementation of DMG Special Publication 117 - Guidelines for Analyzing and Mitigating Liquefaction Hazards in California" Martin and Lew Editors, Southern California Earthquake Center.

Youd, T. L. Et al. (1997), "Summary Report", Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, Youd and Idriss editors, Technical Report NCEER-97-0022, NCEER, Buffalo, New York.

Tokimatsu, K. and Seed, H. B. (1987), "Evaluation of Settlement of Sands Due to Earthquake Shaking", Journal of Geotechnical Engineering, Vol. 113, No. 8, ASCE.

Liquefaction and Seismic Settlement Analysis using SPT (Revised)

Project Information

Project No.:	110045.1
Project Location:	Solar Farm

Analysis performed by:	SWP
Date:	2/20/2011
Reviewed by:	
Date:	

Boring Information

Soil Boring:	**B-10**	
Exist. grade elev:	2345.0	ft
Depth of GWT:	100.0	ft
Finished grade elev:	2345.0	ft
Borehole diameter:	6.0	inch
Hammer efficiency:	69.0	(80 % for autimatic trip drop, 60% for rope and cathead)

Design Data (Seismic data based on 2007 CBC)

EQ. Magnitude:	7.4		
Design a_{max}:	0.4	g	(Based on Design Basis earthquake, DBE)
Design GWT:	2245.0	ft	
Mag Scaling Factor:	1.05		

C_E	1.15
C_B	1.05

												Liquefaction Analyis															**Seismic Settlement Analysis**										
Depth below EG (ft)	Elev. (ft)	Depth below FG (ft)	Total unit weight (pcf)	Total stress below EG (psf)	Effective stress below EG (psf)	Total stress below FG (psf)	Effective stress based on FG & design GWT (psf)	Sampler Type SPT=1 MC = 2	Sample Liner Unlined =1 Lined = 2	Field Blow count N	Fines Content (%)	C_N	C_R	C_S	r_d	α	β	$(N_1)_{60\text{-}CS}$	PI	LL	water content %	USCS	If fine-grained exhibit clay like behavior[1]	If fine-grained potentially liquefiable[2]	CSR	CRR	Factor of Safety (FS_{liq})	Liquefy ?	Total stress at mid depth (psf)	Eff. stress at mid depth (psf)	Effective confining stress σ_m	$(N_1)_{60\text{-}CS}$	G_{max}	γ_{eff} (G_{eff}/G_{max})	τ_{av}/σ_0'	Shear Strain, γ_{eff} (%)	Vol. Strain (Dry) ε_v (%)	Vol. Strain (Sat.) ε_v (%)	Settlement of each layer (inch)	Total settlement (inch)
5.0	2340.0	5.0	105.5	528	528	528	528	1	1	34	39.5	1.70	0.75	1.2	0.988	5.00	1.20	80					NA	NA	0.26	High N	above GWT	No	264	264	176	80	1.14E+06	5.92E-05	0.25	-	-	-	0.0	0.0
10.0	2335.0	10.0	117.3	1114	1114	1114	1114	2	2	45	5.8	1.38	0.80	1.0	0.977	0.02	1.00	38					NA	NA	0.25	High N	above GWT	No	821	821	547	38	1.57E+06	1.33E-04	0.24	2.68E-02	1.92E-02	-	0.0	0.0
15.0	2330.0	15.0	117.3	1701	1701	1701	1701	1	1	11	65	1.12	0.85	1.2	0.965	5.00	1.20	23	11	31	20.0	CL	Yes	No	0.25	Clay like	above GWT	No	1407	1407	938	23	1.75E+06	2.02E-04	0.24	-	-	-	0.0	0.0
20.0	2325.0	20.0	117.3	2287	2287	2287	2287	2	2	55	5.8	0.96	0.95	1.0	0.953	0.02	1.00	38					NA	NA	0.25	High N	above GWT	No	1994	1994	1329	38	2.46E+06	2.01E-04	0.24	3.75E-02	2.51E-02	-	0.0	0.0
25.0	2320.0	25.0	131	2942	2942	2942	2942	1	1	35	51.8	0.85	0.95	1.2	0.942	5.00	1.20	54	0	0	5.3	ML	No	Yes	0.24	High N	above GWT	No	2615	2615	1743	54	3.16E+06	2.03E-04	0.23	-	-	-	0.0	0.0
30.0	2315.0	30.0	112.3	3504	3504	3504	3504	2	2	82	51.8	0.78	0.95	1.0	0.930	5.00	1.20	60	0	0	5.3	ML	No	Yes	0.24	High N	above GWT	No	3223	3223	2149	60	3.63E+06	2.14E-04	0.23	-	-	-	0.0	0.0
35.0	2310.0	35.0	112.3	4065	4065	4065	4065	1	1	81	7	0.72	1.00	1.2	0.889	0.12	1.01	86					NA	NA	0.23	High N	above GWT	No	3784	3784	2523	86	4.43E+06	1.98E-04	0.22	3.07E-02	1.76E-02	-	0.0	0.0
40.0	2305.0	40.0	113.6	4633	4633	4633	4633	2	2	58	7	0.68	1.00	1.0	0.848	0.12	1.01	30					NA	NA	0.22	High N	above GWT	No	4349	4349	2899	30	3.35E+06	2.86E-04	0.21	5.16E-02	5.43E-02	-	0.0	0.1
45.0	2300.0	45.0	113.6	5201	5201	5201	5201	1	1	57	8.2	0.64	1.00	1.2	0.808	0.34	1.01	54					NA	NA	0.21	High N	above GWT	No	4917	4917	3278	54	4.32E+06	2.39E-04	0.20	3.87E-02	2.22E-02	-	0.0	0.1
50.0	2295.0	50.0	113.6	5769	5769	5769	5769	2	2	87	8.2	0.61	1.00	1.0	0.767	0.34	1.01	41					NA	NA	0.20	High N	above GWT	No	5485	5485	3657	41	4.17E+06	2.62E-04	0.19	-	-	-	0.0	0.1

Notes:

EG = Existing grade; FG = Finished grade; MC = Modified California Sampler; GWT = Ground water table

[1] Based on Boulanger and Idriss (2006)

[2] Based on Seed at al. (2003)

References

Boulanger, R. W. and Idriss, I. M. (2006) "Liquefaction Susceptibility Criteria for Silts and Clays", Journal of Geotechnical and Geoenvironmental Engineering, Vol. 132, No. 11, pp. 1413-1426, ASCE.

Seed, R. B., Cetin, K. O., Moss, R. E. S., Krammerer, A. M., Wu, J., Pestana, J. M., Riemer, M. F., Sancio, R. B., Kayen, R. E., and Faris, A. (2003), "Recent Advances in Soil Liquefaction Engineering: A Unified and Consistent Framework", Keynote Presentation, 26th ASCE Los Angeles Geotechnical Spring Seminar, H.M.S. Queen Mary, Long Beach, California.

Youd et al. (2001) "Liquefaction resistance of soil: Summary report from the 1996 NCEER and 1998 NCEE/NSF Workshops on evaluation of liquefaction resistance of soils", Journal of Geotechnical and Geoenvironmental Engineering, Vol. 127, No. 10, ASCE.

"Recommended Procedures for Implementation of DMG Special Publication 117 - Guidelines for Analyzing and Mitigating Liquefaction Hazards in California" Martin and Lew Editors, Southern California Earthquake Center.

Youd, T. L. Et al. (1997), "Summary Report", Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, Youd and Idriss editors, Technical Report NCEER-97-0022, NCEER, Buffalo, New York.

Tokimatsu, K. and Seed, H. B. (1987), "Evaluation of Settlement of Sands Due to Earthquake Shaking", Journal of Geotechnical Engineering, Vol. 113, No. 8, ASCE.

TWINING LABORATORIES

APPENDIX D

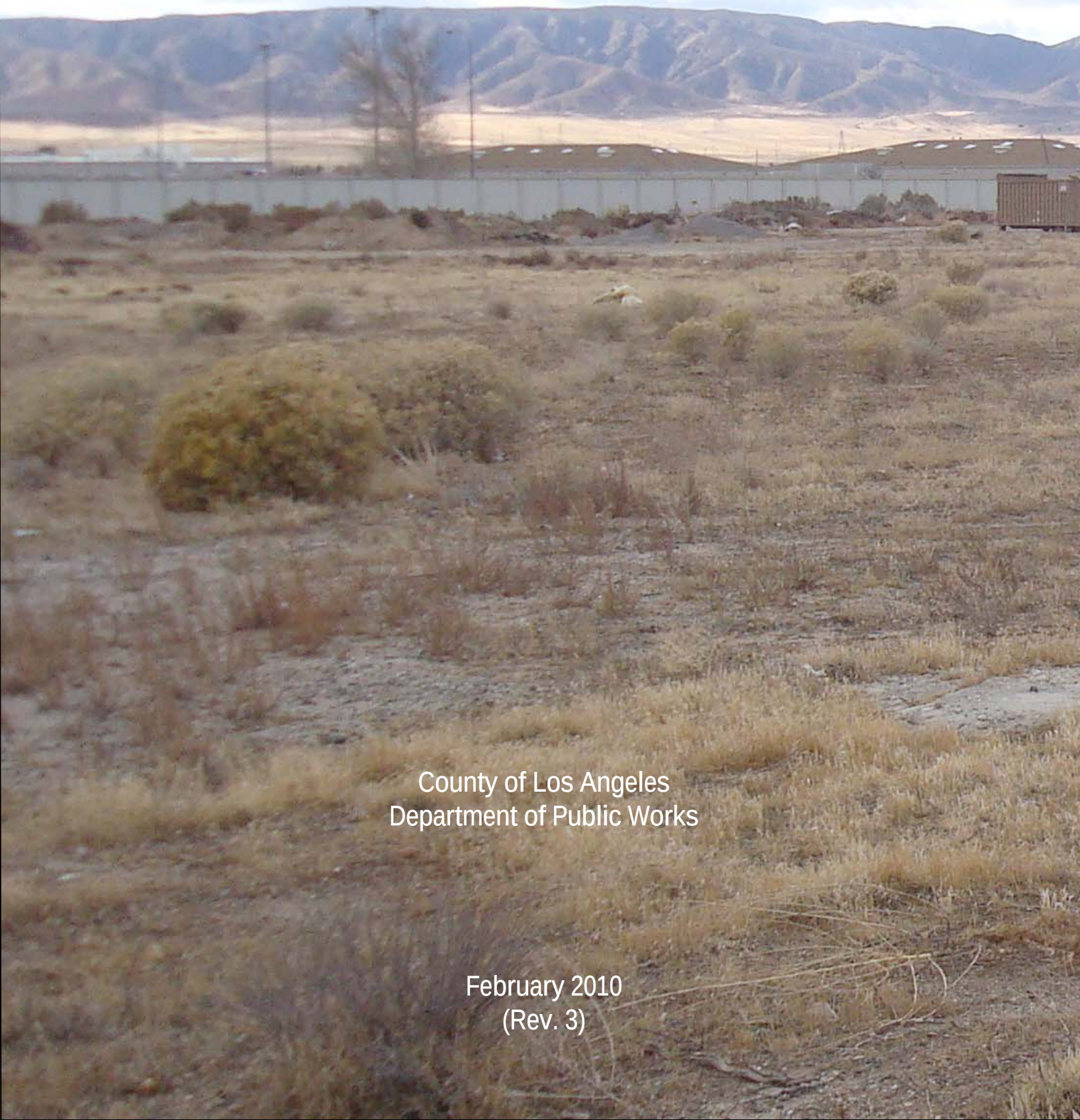
PHASE I ENVIRONMENTAL SITE ASSESSMENT

LANCASTER SOLAR ENERGY SITE

ADJACENT TO MIRA LOMA DETENTION CENTER

W. AVENUE I, LANCASTER, CA 93536

PHASE I ENVIRONMENTAL SITE ASSESSMENT



County of Los Angeles
Department of Public Works

February 2010
(Rev. 3)

LANCASTER SOLAR ENERGY SITE

ADJACENT TO MIRA LOMA DETENTION CENTER
W. AVENUE I, LANCASTER, CA 93536

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Prepared for:

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

Prepared by:

PARSONS

February 2010 (Rev. 3)

TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS v
EXECUTIVE SUMMARY ES-1

SECTION 1 INTRODUCTION 1-1
SECTION 2 SITE DESCRIPTION 2-1
2.1 Location 2-1
2.2 Site and Vicinity Characteristics 2-2
2.2.1 General Setting 2-2
2.2.2 Geologic Setting 2-2
2.2.3 Adjoining Properties 2-4
2.2.4 Hydrologic Setting 2-6
2.2. Oil and Gas Issues 2-6
2.3 General Description of Structures/Improvements to Property 2-6
2.4 Scope of Survey Area 2-6
2.5 Current Land Use 2-6
SECTION 3 HISTORY OF SITE USES 3-1
3.1 Site Background 3-1
3.2 Sanborn Fire Insurance Maps 3-2
3.3 Historical Aerial Photographs 3-2
3.4 Historical City Directories 3-2
3.5 Historical Topographic Maps 3-3
SECTION 4 SITE RECONNAISSANCE 4-1
4.1 Methodology 4-1
4.1.1 Records Review 4-1
4.1.2 Site Inspection 4-1
4.1.3 Personal Interviews 4-1
4.1.4 Sampling 4-2
4.2 Site Description 4-2
4.3 Storage of Chemicals or Hazardous Materials 4-3
4.3.1 Hazardous and Petroleum Waste 4-4
4.4 Storage Tanks 4-4
4.4.1 Aboveground Storage Tanks 4-4
4.4.2 Underground Storage Tanks 4-4
4.4.3 Pipelines, Hydrant Fueling and Transfer Systems 4-5
4.5 Asbestos 4-5
4.6 Radon 4-5
4.7 Lead-based Paint 4-5
4.8 Polychlorinated Biphenyls 4-5
4.9 Evidence of Environmental Concern 4-5

TABLE OF CONTENTS (continued)

4.9.1 Stained Soil, Pavement and Concrete 4-5
4.9.2 Stressed and Protected Vegetation 4-5
4.9.3 Air Quality 4-5
4.10 Mechanical Systems and utilities 4-5
4.11 Wells 4-5
4.12 Wastewater Treatment, Collection and Discharge 4-6
4.13 Oil/Water Separators 4-6
4.14 Pesticides 4-6
4.15 Medical or Biohazardous Waste 4-6
4.16 Ordnance 4-6
4.17 Radioactive Waste 4-6
4.18 Solid Waste Disposal 4-6
4.19 Ponds and Lagoons 4-6
4.20 Septic Systems 4-6
4.21 Pits and Depressions 4-6
4.22 Floor Drains, Sumps and Clarifiers 4-6
4.23 Groundwater 4-6
4.24 Drinking Water Quality 4-6
4.25 Cultural Resources 4-7
4.26 Wetlands and Floodplains 4-7
4.27 Threatened and Endangered Species 4-7

SECTION 5 ADJACENT PROPERTIES 5-1

5.1 Land Uses 5-1
5.1.1 Surveyed Properties 5-1
5.2 Storage of Chemicals or Hazardous Materials 5-2
5.2.1 Hazardous and Petroleum Waste 5-3
5.3 Storage Tanks 5-3
5.3.1 Aboveground Storage Tanks 5-3
5.3.2 Underground Storage Tanks 5-3
5.3.3 Pipelines, Hydrant Fueling and Transfer Systems 5-5
5.4 Asbestos 5-5
5.5 Radon 5-5
5.6 Lead-based Paint 5-5
5.7 Polychlorinated Biphenyls 5-5
5.8 Evidence of Environmental Concern 5-5
5.8.1 Stained Soil, Pavement and Concrete 5-5
5.8.2 Stressed and Protected Vegetation 5-5
5.8.3 Air Quality 5-5
5.9 Mechanical Systems and Utilities 5-5
5.10 Wells 5-6
5.11 Wastewater Treatment, Collection and Discharge 5-6
5.12 Oil/Water Separators 5-6
5.13 Pesticides 5-6
5.14 Medical or Biohazardous Waste 5-6
5.15 Ordnance 5-6

TABLE OF CONTENTS (continued)

5.16 Radioactive Waste 5-6
5.17 Solid Waste Disposal 5-6
5.18 Ponds and Lagoons 5-6
5.19 Septic Systems 5-7
5.20 Pits and Depressions 5-7
5.21 Floor Drains, Sumps and Clarifiers 5-7
5.22 Groundwater 5-7
5.23 Drinking Water Quality 5-7
5.24 Cultural Resources 5-7
5.25 Wetlands and Floodplains 5-7
5.26 Threatened and Endangered Species 5-7
5.27 Prime and Unique Farmlands 5-7

SECTION 6 RECORDS REVIEW 6-1

6.1 Environmental Lien Report Review 6-3
6.2 Agency Records Review 6-3

SECTION 7 DATA GAPS 7-1

SECTION 8 CONCLUSIONS 8-1

SECTION 9 RECOMMENDATIONS 9-1

SECTION 10 SPECIAL TERMS AND CONDITIONS 10-1

10.1 Limitations and Exceptions of Assessment 10-1
10.2 Limiting Conditions and Methodology Used 10-1

SECTION 11 STATEMENT OF INDEPENDENCE 11-1

SECTION 12 STATEMENT OF QUALIFICATIONS 12-1

SECTION 13 SIGNATORY 13-1

TABLE OF CONTENTS (continued)

APPENDICES

APPENDIX A	HISTORICAL AERIAL PHOTOGRAPHS
APPENDIX B	CITY DIRECTORY SEARCH
APPENDIX C	HISTORICAL TOPOGRAPHIC MAPS
APPENDIX D	SITE PHOTOGRAPHS
APPENDIX E	TRACK INFO SERVICES RADIUS REPORT
APPENDIX F	REFERENCES
APPENDIX G	VISUAL SITE INSPECTION FORMS
APPENDIX H	INTERVIEW QUESTIONNAIRES
APPENDIX I	CHAIN OF TITLE REPORT

TABLE OF CONTENTS (continued)

LIST OF FIGURES

Figure 2-1. Vicinity Map 2-1
Figure 2-2. Aerial View of Subject Property 2-2
Figure 2-3. USGS Topographic Map of the Subject Property 2-3
Figure 2-4. Parcel Map of Subject Property 2-4
Figure 2-5. Aerial View of Adjoining Properties 2-5
Figure 4-1. Features on the Subject Property 4-6

LIST OF TABLES

Table 2-1. Summary of Adjoining Properties 2-5
Table 3-1. Chronology of the Subject Property 3-1
Table 3-2. Past Site Use Based on Aerial Photographs 3-2
Table 3-3. Property Listings from Historical City Directories 3-3
Table 4-1. Personnel Interviewed 4-2
Table 4-2. Sensitive Species Documented Near the Subject Property 4-7
Table 5-1. Properties Adjacent to the Subject Property 5-1
Table 5-2. Underground Storage Tanks in the Area of the Subject Property 5-4
Table 5-3. Leaking Underground Storage Tanks in the Project Area 5-4
Table 6-1. Federal Environmental Databases 6-1
Table 6-2. State of California Environmental Databases 6-2
Table 6-3. Government Records/Agencies for NEPA Data 6-2
Table 8-1. Subject Property Facility Matrix 8-2

ABBREVIATIONS AND ACRONYMS

ACM	asbestos containing material
AOC	Area of Concern
APN	Assessor's Parcel Number
AST	aboveground storage tanks
ASTM	American Society for Testing and Materials
ACERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CERFA	Community Environmental Response Facility Act
CESQG	Conditionally Exempt Small Quantity Generator(s)
CFR	Code of Federal Regulations
CORRACTS	Corrective Action Report
CSP-LAC	California State Prison, Los Angeles County
DERA	Defense Environmental Restoration Account
DTSC	California Department of Toxic Substances Control
EPA	(United States) Environmental Protection Agency
EPIC	Environmental Photographic Interpretation Center
ERNS	Emergency Response Notification System
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
ft	feet
FUDS	Formerly Used Defense Sites
HazMat	hazardous material(s)
HazWaste	hazardous waste(s)
ICE	Immigration and Customs Enforcement
LAC	Los Angeles County
LBP	lead-based paint
LQG	large quantity generator(s)
LUST	leaking underground storage tank
mg/l	milligram(s) per liter
MRZ	Mineral Resource Zone
NEPA	National Environmental Policy Act
NFRAP	No Further Remedial Action Planned
NPL	National Priorities List
NWI	National Wetlands Inventory
PCB	polychlorinated biphenyls
pCi/L	picoCuries per liter
P.E.	Professional Engineer
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition(s)
SAP	Satellite Accumulation Point
SQG	small quantity generator(s)
TIS	Track Info Services

ABBREVIATIONS AND ACRONYMS (continued)

TSDF	treatment, storage and disposal facility
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USEPA	(United States) Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank

EXECUTIVE SUMMARY

INTRODUCTION

This Phase I Environmental Site Assessment has been prepared to document the physical condition of publicly-owned land that is being considered for construction and operation of a solar energy facility in the city of Lancaster, Los Angeles County. The subject property is located on Assessor's Parcel No. 3203-014-901 which contains vacant undeveloped land east and southeast of the County of Los Angeles Mira Loma Detention Center at the corner of West Avenue I and 60th Street West.

The subject area was surveyed to determine if there were any environmental concerns resulting from the storage, use, release, and disposal of hazardous substances and petroleum products and their derivatives. The environmental site assessment establishes a baseline for use by the County of Los Angeles in making decisions concerning real property transactions. Although primarily a management tool, an environmental site assessment assists the County in meeting its obligations under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42, United States Code (U.S.C.) Section 9620(h)(1), as amended by the Community Environmental Response Facilitation Act (CERFA) (Public Law 102-426).

This environmental site assessment was based on information obtained through record searches, a visual site inspection, and interviews. The records searches included a review of available government agency records including environmental restoration and compliance reports, records, audits, and inspections. The environmental site assessment also includes an evaluation of the environmental conditions of properties immediately adjacent to or relatively near the subject parcels that could pose environmental concerns and/or affect the subject property.

PROPERTY FINDINGS

The findings for the various environmental factors considered in this environmental site assessment for the subject property are presented below.

Hazardous Substances

There are no known hazardous materials, petroleum products, hazardous wastes or petroleum wastes currently stored at the subject property. Although the subject property is within the boundaries of one of three airfields within the Polaris Flight Academy site which is in the California Department of Toxic Substances Control (DTSC) Site Cleanup Program, there is no data to indicate that hazardous substances were released at the subject property. Obvious signs of contamination from hazardous materials and petroleum products were not observed.

Storage Tanks

There are no known aboveground storage tanks (AST) or below-ground/underground storage tanks (UST) on the subject property.

Pesticides

Evidence of bulk storage of pesticides and other similar chemicals was not identified for the subject property. Past use of pesticides and fertilizers typical of commercial applications most likely occurred, and continues to occur, on adjoining properties. Residual concentrations of these constituents would not be expected be harmful to human health.

Medical/Biohazardous Waste

No onsite disposal of medical/biohazardous waste was identified for the subject property.

Radioactive Materials and Waste

No evidence of radioactive material use or disposal was identified for the subject property.

Solid Waste Disposal

Limited onsite disposal of construction materials/waste and domestic trash was observed on subject property.

Groundwater

No onsite groundwater monitoring wells were identified for the subject property.

Wastewater Treatment, Collection, and Discharge

No onsite septic systems or leach fields were identified for the subject property. Stormwater that could fall on the subject property, including storm drain discharge from the adjoining properties, during a rain event would be absorbed in the area and surrounding soils.

Drinking Water Quality

There are no drinking water facilities on the subject property.

Asbestos

Evidence of asbestos was not identified on the subject property.

Polychlorinated Biphenyls

Evidence of polychlorinated biphenyls (PCB) was not identified on the subject property.

Radon

All of Los Angeles County is categorized by the U.S. Environmental Protection Agency (EPA) as Zone 2 for radon. Zone 2 counties have a predicted average indoor radon screening level of between 2 and 4 picoCuries per liter of air (pCi/L), which indicates a moderate potential for radon occurrence. The EPA action level for indoor airborne radon is 4 pCi/L. Radon is not an issue of concern for this environmental site assessment because the proposed solar energy facility would not include continually occupied buildings.

Lead-Based Paint

Lead-based paint (LBP) may be present at the subject property on painted surfaces of discarded construction materials and a former outdoor loading dock.

Cultural Resources

The subject property does not have any documented prehistoric archaeological sites or cultural sites.

Wetlands and Floodplains

Based on the database search report, there are no federal jurisdictional wetlands identified within 0.5 mile of the subject property. The subject property is located within the 500-year floodplain.

Threatened and Endangered Species

Based on the limited and marginal biological habitat, Federal- or State-listed threatened or endangered species would not be expected to inhabit the subject property.

ADJACENT PROPERTY FINDINGS

There is one small quantity hazardous waste generator (High Desert Hospital) within one mile of the subject property. There are no National Priority List (NPL) sites, proposed NPL sites, NPL liens or delisted NPL sites within one mile of the subject property. There are no other CERCLA-listed or RCRA sites within 0.5 mile of the subject property. In 2003, there was one leaking underground storage tank reported within 0.5 mile of the site at Mira Loma Detention Center. This leak has been cleaned up and no further action is required. In addition:

- Medical/biohazardous waste is generated at the adjacent High Desert Hospital. Radioactive material was formerly used at the adjacent property, High Desert Hospital.

- On the adjoining properties, LBP is expected to be present on buildings that were coated with LBP before this type of paint was prohibited from use.
- Groundwater wells are located on the adjoining property at the Mira Loma Detention Center.
- The presence of asbestos containing material (ACM) at the Mira Loma Detention Center is based on age of building and typical construction materials used at the time of construction.
- The use or presence of PCB on the adjoining property is based on the presence of pole-mounted transformers that have not been replaced.
- Drinking water at adjoining facilities is provided by groundwater drawn from the local aquifer.

RECOMMENDED ACTIONS

It is recommended that the following actions be taken prior to use of the property:

1) Construction materials deposited on the subject property (i.e., any painted surfaces, trailer and former loading dock) should be sampled for lead-based paint. In the event that lead-based paint is detected, all removal and disposal should be conducted in accordance with applicable regulatory requirements.
2) Subsurface soil sampling should be conducted in representative areas of the subject property to investigate the potential presence of residual petroleum hydrocarbons and heavy metals. This is because of the absence of previous studies for this property, accessibility of the site from the road, and the potential for migration of heavy metals released at the California State Prison, Los Angeles County approximately 0.39 miles southwest of the subject property.
3) Because of the liquefaction hazard potential, a site-specific geotechnical investigation should be conducted to ascertain the geologic and soil stability of the subject property.

SECTION 1
INTRODUCTION

This Phase I Environmental Site Assessment has been prepared to document the physical condition of publicly-owned land that is being considered for construction and operation of a solar energy facility in the city of Lancaster, Los Angeles County. This assessment collects into a single document all available information to establish a baseline for use by the County of Los Angeles in making decisions regarding real property transactions that concern the properties specified in this document.

As a management tool, this Phase I Environmental Site Assessment assists the County of Los Angeles in meeting its obligations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Community Environmental Response Facilitation Act (CERFA). On November 1, 2005 the United States Environmental Protection Agency (EPA) published a new rule for conducting “all appropriate inquiries” (AAI) under CERCLA. The standard, effective November 1, 2006, replaces American Society for Testing and Materials (ASTM) Phase I Site Assessment Process Standard E 1527-00 (the "2000 ASTM Standard") as the primary environmental due diligence document in real estate acquisitions. EPA was mandated to develop the standard pursuant to amendments to CERCLA in 2002 that provided the "bona fide prospective purchaser" and "contiguous property owner" defenses to CERCLA liability. The ASTM 1527-05 standard meets the AAI criteria. This Phase I Environmental Site Assessment follows the ASTM 1527-05 standard.

The purpose of the Phase I Environmental Site Assessment is to identify recognized environmental conditions (REC), defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater or surface water of the property.

An environmental site assessment may be divided into phases. A Phase I environmental site assessment involves determination of baseline environmental conditions for the subject property. This includes, but is not limited to, records searches and interviews with knowledgeable personnel. Suspect sites and areas of concern (AOC) are noted and recorded in the environmental site assessment report. Based on these findings, the Phase I environmental site assessment indicates the presence or likely presence of hazardous substances or petroleum products or their derivatives for the subject properties. Typically, a Phase II environmental site assessment includes sampling of suspect contaminated media as part of the continuing investigation of the site.

This Phase I environmental site assessment will assist the County of Los Angeles to:

- Develop sufficient information to assess health and safety risks on the property surveyed and determine what actions are necessary to protect human health and the environment prior to a real property transaction;
- Document and obtain regulatory concurrence on uncontaminated property as required and defined under CERCLA 120(h)(4);
- Support notice, when required under Section 120(h)(1) of CERCLA, of the type, quantity, and time frame of any storage, release, or disposal of hazardous substances or petroleum substances or their derivatives on the property;
- Identify data gaps concerning environmental contamination;
- Define potential environmental liabilities associated with real property transactions; and,

- Aid in determining possible effects on property valuation from any contamination or concerns identified.

The information presented in this environmental site assessment was obtained through record searches, a visual site inspection, and interviews. The records searches included a review of available government agency records to include environmental restoration and compliance reports, records, audits, and inspections:

- Appendix A contains historical aerial photographs of the site and its surrounding area.
- Appendix B contains the results of city directory searches.
- Appendix C contains historical topographic maps.
- Appendix D contains site photographs taken during the visual site inspection on December 22, 2009.
- Appendix E contains the environmental database search results.
- References used in this environmental site assessment are provided in Appendix F.
- Appendix G contains visual site inspection forms.
- Appendix H contains interview questionnaires.
- Appendix I contains the environmental chain of title report.

The environmental site assessment also includes an evaluation of environmental conditions of properties immediately adjacent to or relatively near the subject property that could pose an environmental concern and/or affect the subject property. The visual site inspection of adjacent properties was conducted by perimeter access with limited direct access onto the properties.

Per the findings of the Phase I environmental site assessment, a Phase II environmental site assessment may be required if the property requires further evaluation and additional investigations may be conducted. This may include soil and groundwater sampling, or building material assessments (asbestos or lead-based paint surveys).

The scope of work for this Phase I environmental site assessment did not specifically include sampling and analysis; therefore no independent soil or groundwater or other sampling and analyses were conducted.

SECTION 2

SITE DESCRIPTION

2.1 LOCATION

The proposed site for the solar energy facility ("subject property") is located in the city of Lancaster in Los Angeles County approximately 75 miles north of downtown Los Angeles, and approximately 2.5 miles west of the Antelope Valley Freeway (State Route 14) as shown on Figure 2-1.

Figure 2-1. Vicinity Map



Source: modified from Mapquest

The subject property is located on the south side of West Avenue I between 60th Street West and 50th Street West as shown on Figure 2-2. Because it is currently vacant, the subject property does not have an address. Although the size of the proposed solar energy facility and its specific layout have not been determined at this time, the subject property evaluated in this report is approximately 65 acres in size.

2.2 SITE AND VICINITY CHARACTERISTICS

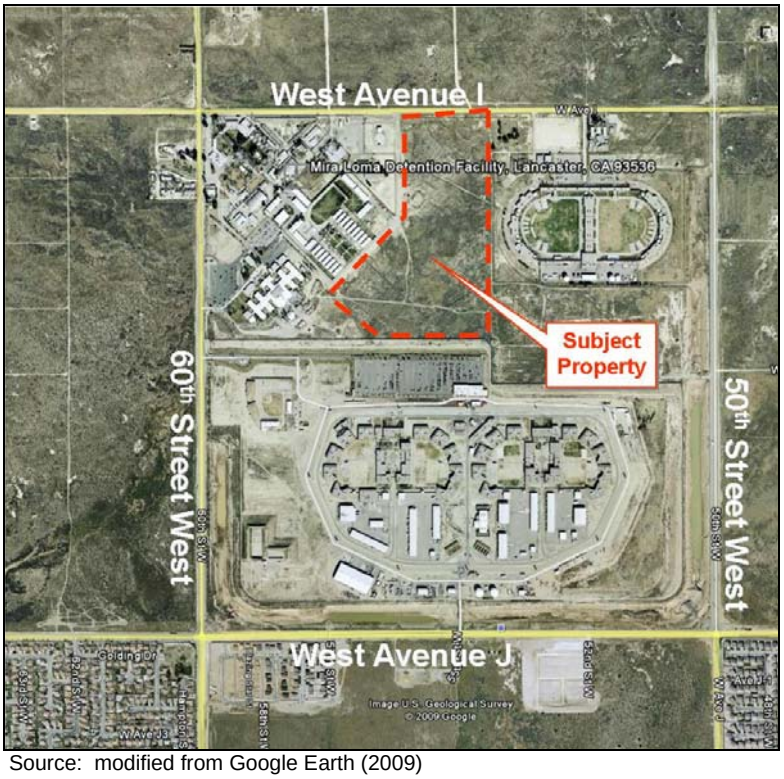
2.2.1 General Setting

The general setting of the subject property is a low-density area characterized by isolated areas of rural development (City of Lancaster, 2007). The subject property is located on an approximate one-square mile block of public facilities (Figure 2-2).

The subject property is located approximately 2,342 feet above sea level at latitude 34° 42' 2" north and longitude 118° 13' 47" west. Topography in the vicinity of the subject property is generally flat (Figure 2-3).

The subject property is owned by the County of Los Angeles and is designated as Assessor's Parcel Number (APN) 3203-014-901. The parcel map for the subject property is provided on Figure 2-4.

Figure 2-2. Aerial View of Subject Property



Source: modified from Google Earth (2009)

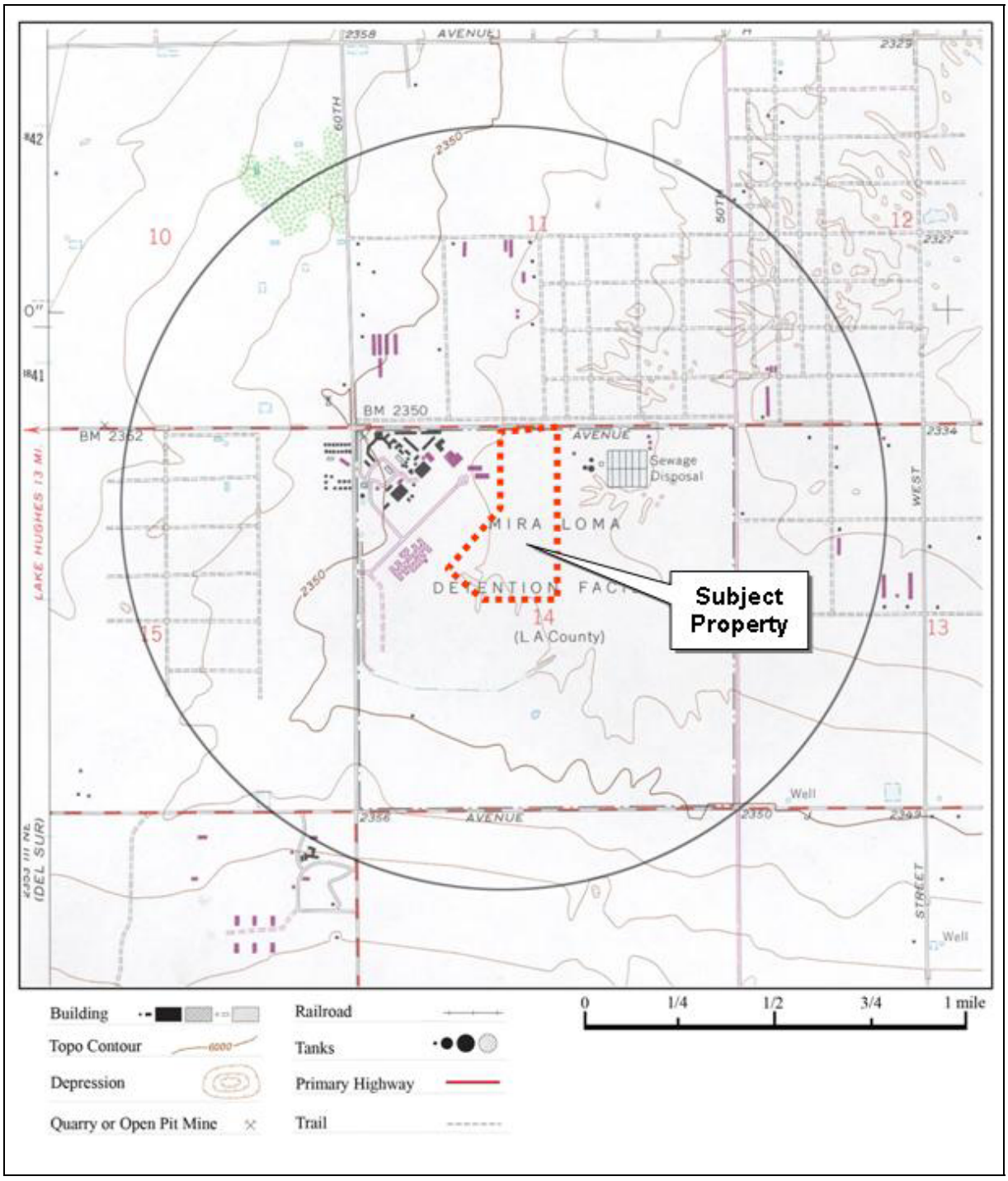
2.2.2 Geologic Setting

The site is located in the USGS Lancaster West quadrangle within the Mojave Desert Geomorphic Province. The Lancaster West Quadrangle is situated primarily within alluvial sedimentary deposits of Tertiary and Quaternary age. The desert soil on the subject property is the Pond-Tray-Oban Association which is generally stable and well drained. These soils are found in basins north of Lancaster, containing slight to moderate amounts of soluble salts and alkali. These soils are formed in alluvium derived from granitic rock, and have slopes of 0 to 2 percent. Soils of this association are characterized by poor topsoil, slow permeability, high water-holding capacity for irrigation, and low to high shrink-swell potential. Depth to bedrock is 5 feet or greater (City of Lancaster, 2007). Soils on the subject property are expected to have a low to moderate shrink/swell potential; a ground fissure is possibly found on the northern portion of the subject property and a sinkhole may be present directly north of the property. Fissures are typically associated with faults or groundwater withdrawal which can result in cracking of the ground surface (City of Lancaster, 2007). In addition, the subject property is located in an area of potential liquefaction hazard based primarily on occurrence of groundwater in major alluvial deposits (City of Lancaster, 2007).

The subject property in Lancaster is not located in an area of active or mapped earthquake faults nor is it within an Alquist-Priolo Special Studies Zone. Seismic activity of the Lancaster area can result from its proximity to the "active" San Andreas Fault located to the southwest (City of Lancaster, 2007).

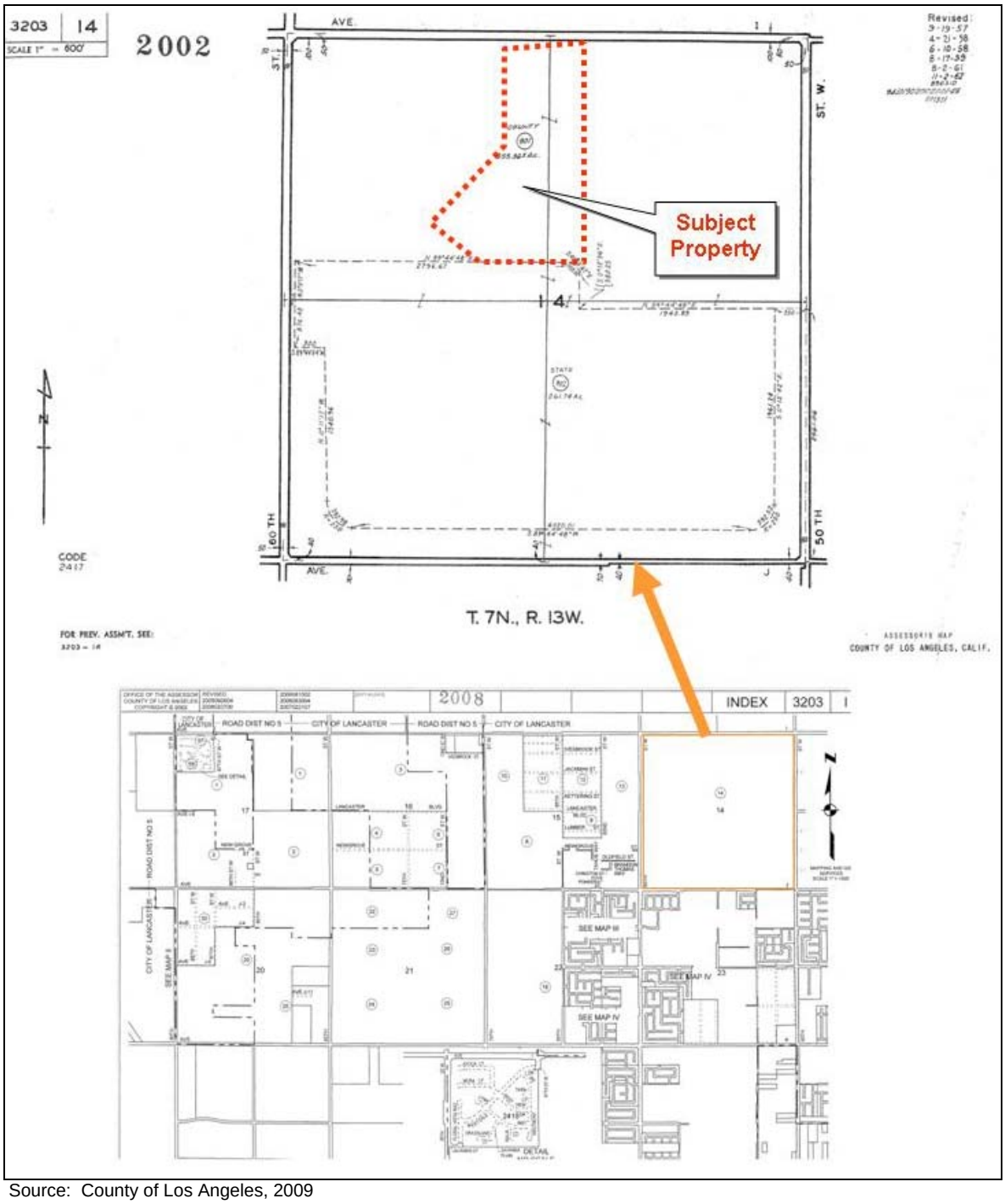
Portions of Lancaster, including land within the subject property, are classified as a Mineral Resource Zone (MRZ) that encompasses the Palmdale Production-consumption (P-C) region, a market area of sand and gravel mineral commodity. The subject property is located within the MRZ-1 and MRZ-3 resource areas. The MRZ-1 indicates an area that contains no resources while the MRZ-3 classification indicates potentially significant mineral deposits although it is not considered likely that the Lancaster area has large, valuable mineral and aggregate deposits (City of Lancaster, 2007).

Figure 2-3. USGS Topographic Map of the Subject Property



Source: modified from USGS Lancaster West topographic map (1974)

Figure 2-4. Parcel Map of Subject Property



Source: County of Los Angeles, 2009

2.2.3 Adjoining Properties

The subject property is surrounded by public and institutional facilities as shown on Figure 2-5. The northern half of the block is owned by the County of Los Angeles which operates the Mira Loma Detention Center, High Desert Hospital, probation camps and animal shelter. The southern half of the block is owned by the State of California which operates the California State Prison, Los Angeles County. Institutional facilities adjoining the subject property are summarized in Table 2-1.

Figure 2-5. Aerial View of Adjoining Properties



LAC = Los Angeles County
Source: modified from Google Earth (2009)

Table 2-1. Summary of Adjoining Properties

Facility and Address	Functional Description	Year of Construction
Mira Loma Detention Center 45100 N. 60th Street W. Lancaster, CA 93536	Operated by the County of Los Angeles Sheriff's Department, Mira Loma Detention Center is contracted by the U.S. Department of Homeland Security (Immigration and Naturalization Service) to house illegal immigrants until their immigration case is decided. The facility functions as a regular County jail with the exception that individuals housed are identified as detainees. These detainees live in barrack-style housing that hold up to 60 detainees per barrack. The facility also includes federal courtrooms used for deportation hearings, former military hangars and World War II era buildings constructed in the 1940s. The capacity of the facility is 1,200 detainees; approximately 800 detainees are presently housed.	1954 (Mira Loma Custody Facility)
High Desert Health System 44900 N. 60th St. W. Lancaster, CA 93536	Operated by Los Angeles County Health Services, the 28-bed High Desert Health System is a Multi-Service Ambulatory Care Center providing outpatient services with an Ambulatory Surgical Center as part of its primary care clinic.	1961

Table 2-1. Summary of Adjoining Properties (Cont'd)

Facility and Address	Functional Description	Year of Construction
Challenger Memorial Youth Center (Probation Camps) 5300 W. Avenue I Lancaster, CA 93536	Camps Jarvis, McNair, Onizuka, Scobee, Resnik, and Smith are operated by the County of Los Angeles Probation Department.	1970s – 1980s
Lancaster Shelter 5210 W. Avenue I Lancaster, CA 93536	The Lancaster Animal Shelter is operated by the Los Angeles County Department of Animal Care & Control.	(unknown)
California State Prison, Los Angeles County (CSP-LAC) 44750 60th St. W Lancaster, CA 93536	The mission of CSP-LAC is to be a Reception Center for short term housing and provide secure long-term housing and services for men who have been convicted of felonies and are classified as minimum, high-medium and maximum custody inmates. CSP-LAC was opened February 1993, and covers 262 acres and houses approximately 4,700 inmates.	1991

2.2.4 Hydrologic Setting

The subject property is located in the Antelope Valley Groundwater Basin. Groundwater flow is generally north and northeasterly from the San Gabriel Mountains toward the Rosamond and Rogers Dry Lakes. The water table is approximately 60 feet below ground surface (City of Lancaster, 2007).

2.2.5 Oil and Gas Issues

There are no oil and gas wells on the subject property or within the immediate area. The subject property is not located within an oil field. The nearest oil and gas wells, COMCO Goode 1 and the Antelope Valley Oil Co, Inc. Del Sur 1, were approximately 1.5 mile south, both of which are plugged and abandoned dry holes (California Department of Conservation, 2009a). The subject property is not located above any known oil fields.

2.3 GENERAL DESCRIPTION OF STRUCTURES/IMPROVEMENTS TO PROPERTY

The subject property is vacant, undeveloped land east and southeast of the County of Los Angeles Mira Loma Detention Center at the corner of West Avenue I and 60th Street West. There are no physical improvements on the subject property (with the exception of dirt roads through the property, remnants of airfield pavement, an outdoor loading dock, and possible abandoned, buried electrical conduit). While the institutional facilities that surround the subject property are fenced, the subject property is not fenced. Additional information on the description of the property is provided in Section 4, *Site Reconnaissance*.

2.4 SCOPE OF SURVEY AREA

This environmental site assessment is based on information available for, and the visual site inspection of, the subject property and the property immediately adjacent to the subject property. Information regarding property within approximately 1 mile of the subject property with potential environmental concerns is also presented. The results of the survey for the subject properties and the adjacent properties are discussed in Section 4, *Site Reconnaissance*.

2.5 CURRENT LAND USE

The subject property is currently not in use with the exception of storage for trash dumpsters and construction materials/waste along the immediate perimeter of the Mira Loma Detention Center. Activity on the site is limited to patrols by Sheriff's Department personnel who drive along the dirt roads. The subject property is not used by any operations on the adjoining properties.

SECTION 3

HISTORY OF SITE USES

3.1 SITE BACKGROUND

This property was first used as a pilot training academy and airfield as early as 1941 after the land was purchased from the heirs of B.F. Carter who came to the Antelope Valley from Wisconsin (Gardiner, 2002). The site history for the subject property was evaluated based on an environmental chain of title report (provided in Appendix I) and other sources. A chronology of the subject property is provided on Table 3-1.

Table 3-1. Chronology of the Subject Property

Timeframe	History
1941	The privately-owned Polaris Flight Academy – War Eagle Field and its aircraft hangars are constructed at 60th Street and Avenue I to train British Royal Air Force pilots and Canadian Air Cadets during World War II. After the bombing of Pearl Harbor, the United States Army Air Force Cadets also began training at the field under contract to the flight academy.
1942	Defense Plant Corporation (Plancor) acquired 1,600 acres and all improvements associated with the Polaris Flight Academy who in turn leased the site from Plancor to train pilots for the U.S. Government.
1944	Polaris Flight Academy changes its name to the Mira Loma Flight Academy.
1945	War Eagle Field closes at the end of World War II.
1945 - 1954	Vacant.
1948	In a grant deed, the land is sold by the Reconstruction Finance Corporation[1] and the United States of America to the State of California.
1954	Los Angeles County Sheriff's Department and the Los Angeles County Department of Hospitals opens the Mira Loma Custody Facility for inmates with tuberculosis. Subject property remains vacant.
1979	Mira Loma Custody Facility closes.
1983	Mira Loma Custody Facility re-opens due to jail overcrowding and is expanded to include female inmates.
1986	The Mira Loma prison expands in size to accommodate population increases.
1993	Mira Loma Custody Facility closes due to County budget cuts.
1994	In a final order of condemnation, the State of California grants the land to the County of Los Angeles.

[1] The Reconstruction Finance Corporation was an independent agency of the United States government chartered during the administration of Herbert Hoover in 1932. The agency provided financial aid to state and local governments and made loans to banks, railroads, farm mortgage associations, and other businesses. The loans were nearly all repaid. It was continued by the New Deal and played a major role in handling the Great Depression in the United States and setting up the relief programs that were taken over by the New Deal in 1933. The Reconstruction Finance Corporation was abolished as an independent agency by act of Congress in 1953, transferred to the Department of the Treasury in 1954, and totally disbanded in 1957.

Table 3-1. Chronology of the Subject Property (cont'd)

Timeframe	History
1997 to present	Mira Loma Custody Facility re-opens when Los Angeles Sheriff's Department enters into a contract with the U.S. Immigration and Naturalization Service[2] to house federal detainees awaiting deportation hearings. Two of the original hangars and other WWII-era buildings are still in use. Subject property remains vacant.

Source: LASD, 2009; Banks Environmental Data, 2009; City of Lancaster, 2007; USACE, 1998

3.2 SANBORN FIRE INSURANCE MAPS

Fire insurance maps covering the subject property are not available (TIS, 2009c).

3.3 HISTORICAL AERIAL PHOTOGRAPHS

Available historical aerial photographs from seven prior years were reviewed (Appendix A). Based on the historical aerial photographs, use of the property has changed over the years from an airfield to unoccupied land. A summary of land use based on aerial photographs is provided in Table 3-2.

Table 3-2. Past Site Use Based on Aerial Photographs

Year of Aerial Photo	Undeveloped Land South of 5816 W. Avenue I, Lancaster, CA
1942	Active airfield with two main paved runways in a southwest-northeast diagonal alignment; possible taxiways along the outer limits of the site.
1953	Vacant with vegetation over the former runways and sewage treatment ponds northeast of the subject property
(after 1961)	Vacant with dirt roads across the open area
1968	Vacant with approximately nine criss-crossing dirt roads (Mira Loma Detention Center not yet constructed)
1989	Vacant with three main dirt roads
1994	Vacant with three main dirt roads (similar to 1989)
2002	Vacant with three main dirt roads (similar to 1994)

3.4 HISTORICAL CITY DIRECTORIES

A database search of city directories published from 1957 through 2009 was reviewed. There were no gas stations, cleaners, automotive shops or other occupants of potential environmental concern located on the subject street, within the vicinity of the 5816 W. Avenue I address used for the search. Based on the listings in historical city directories, use of the property is characterized as institutional with former residential and business entities as shown in Table 3-3. The historical city directory search is provided in Appendix B.

[2] The Immigration and Naturalization Service has been incorporated into the U.S. Department of Homeland Security and is now called Immigration and Customs Enforcement (ICE)

Table 3-3. Property Listings from Historical City Directories

Year	Published Listings for Nearest Address to 5816 W. Avenue I, Lancaster, CA	Listing Address
1957	(No listing for this address)	(Highest address is 4752 W. Avenue I)
1961	County Animal Shelter	5210 W. Avenue I
1966	Antelope Valley Dog Pound	5210 W. Avenue I
	J. Towner	6846 W. Avenue I
1970	Los Angeles County Dog Pound	5210 W. Avenue I
	John C. Towner	6846 W. Avenue I
1974	Los Angeles County Animal Control	5210 W. Avenue I
	Hanks Place	7344 W. Avenue I
1979	Los Angeles County Animal Care	5210 W. Avenue I
	Pepes Bar & Grill	7344 W. Avenue I
1984	Los Angeles County Animal Care	5210 W. Avenue I
	Los Angeles County Probation Camp	5700 W. Avenue I
1989	Superior Air Handlne	5300 W. Avenue I
	Los Angeles County Probation Camp	5700 W. Avenue I
1994	Morrison Custom Management	5300 W. Avenue I
1999	Morrison Custom Management	5300 W. Avenue I
2004	Morrison Custom Management	5300 W. Avenue I
2009	Morrison Custom Management	5300 W. Avenue I

Source: TIS, 2009c. Based on city directories published by Luskey's, B&G Publications, and Haines

3.5 HISTORICAL TOPOGRAPHIC MAPS

Historical topographic maps compiled in 1974 and 1958 indicate that a sewage treatment plant was once located to the east/northeast of the subject property where the County animal shelter is now located. Historical topographic maps are included in Appendix C.

SECTION 4

SITE RECONNAISSANCE

This section describes the methodology for site reconnaissance and the findings for the subject property. Findings for adjacent properties are provided in Section 5.

4.1 METHODOLOGY

The environmental site assessment followed a methodical process in which available information was analyzed and conclusions were drawn about the condition of the subject property. Real property records, and land use maps were reviewed to identify historical land uses and obtain relevant information about the condition of the subject property. Areas of the property where industrial processes occurred; solid and hazardous wastes were stored, disposed, or released; and hazardous materials or petroleum or its derivatives were stored or used were of special interest and received the closest scrutiny. Available CERCLA and RCRA studies and field investigations were reviewed to identify areas where the presence (or absence) of contamination has been confirmed. Available records from various organizations, as well as environmental audits or surveys, were reviewed to identify any other areas of concern. Finally, the property owner and a former employee were interviewed, and a physical inspection of the property was conducted to identify any additional evidence of possible environmental concern(s), such as staining or distressed vegetation that might indicate contamination.

4.1.1 Records Review

The records review included an environmental database review as well as other federal and state supplemental environmental databases that were also searched. These databases include information such as permitted facilities handling hazardous materials, criminal cases involving environmental issues, and remedial action reports. Additional detail on the records review is provided in Section 5.

4.1.2 Site Inspection

A visual site inspection of the two parcels and adjacent properties was conducted on December 22, 2009. Participants in the inspection were:

- Elvira Gaddi, P.E. (Parsons); and,
- Rosemarie Crisologo (Parsons).

The purpose of the physical inspection was to determine or confirm the presence or absence of recognized environmental conditions, such as unusual odors, stained soils, stressed vegetation, or other indications of potential contamination. In addition, a photographic documentation of the site was conducted. Photographs of the subject property are presented in Appendix D. Completed visual site inspection forms are included in this report in Appendix G.

4.1.3 Personal Interviews

Interviews with personnel knowledgeable about the subject property were conducted. Only one person, Mr. Milt Stark, was available who is knowledgeable about historic operations of the subject property. Interviews were limited to staff at adjoining properties and County of Los Angeles Department of Public Works personnel familiar with the project. The interviews were conducted in person or over the phone with the aid of a questionnaire, which consisted of questions regarding the knowledge of the history of the area, and potential environmental issues associated with the property, including the use, storage, and handling of hazardous materials at the subject site. Personnel unavailable during the survey were given questionnaires to complete. Table 4-1 provides a list of individuals interviewed regarding the subject properties. Appendix H provides copies of completed questionnaires.

Table 4-1. Personnel Interviewed

Name	Title	Organization
Mr. Milt Stark	Historian	West Antelope Valley Historical Society
Mr. Tom Higgins	Electrical Supervisor (Acting Manager)	Los Angeles County Department of Health Services High Desert Hospital
Mr. Dennis Allen	Facilities Service Bureau Complex Manager II	County of Los Angeles Sheriff's Department Mira Loma Detention Center
Mr. Miguel Loayza, P.E.	Project Manager	County of Los Angeles Department of Public Works Project Management Division II
Ms. Cynthia Alexander[a]	Operations	Los Angeles County Probation Department
Mr. Daniel Ubario[a]	Supervisor	Los Angeles County Department of Animal Care & Control - Lancaster Shelter
Lt. Michael Stratman[a]	Public Information Officer	State of California Department of Corrections and Rehabilitation – California State Prison, Los Angeles County

[a] Information based on limited telephone interview only (questionnaire has not been returned at this time).

Interview with Current Property Owner. The subject property is not in use by any of the adjoining tenants. Representatives of the current property owner, County of Los Angeles, indicate that there is no knowledge of any previous contamination or past practices that may have resulted in contamination on the subject property.

Interview with Last Known Tenant. The last known tenant that actively may have used the subject property would have been operators of the Polaris Flight Academy or Mira Loma Flight Academy which utilized runways and taxiways from 1941 to 1945. No such persons were located during the course of this study. Mr. Milt Stark of the West Antelope Valley Historical Society, who worked at the California Vocational Institution (now Mira Loma Detention Facility) in early 1946, was interviewed and indicated that he has no knowledge of any previous contamination or past practices that may have resulted in contamination on the subject property.

Interviews with Government Officials. Government officials from the County of Los Angeles Health Services Department, Sheriff's Department, Department of Public Works, Probation Department, Department of Animal Care & Control and the State of California Department of Corrections and Rehabilitation (California State Prison, Los Angeles County) were interviewed and have no knowledge of any previous contamination or past practices that may have resulted in contamination on the subject property.

4.1.4 Sampling

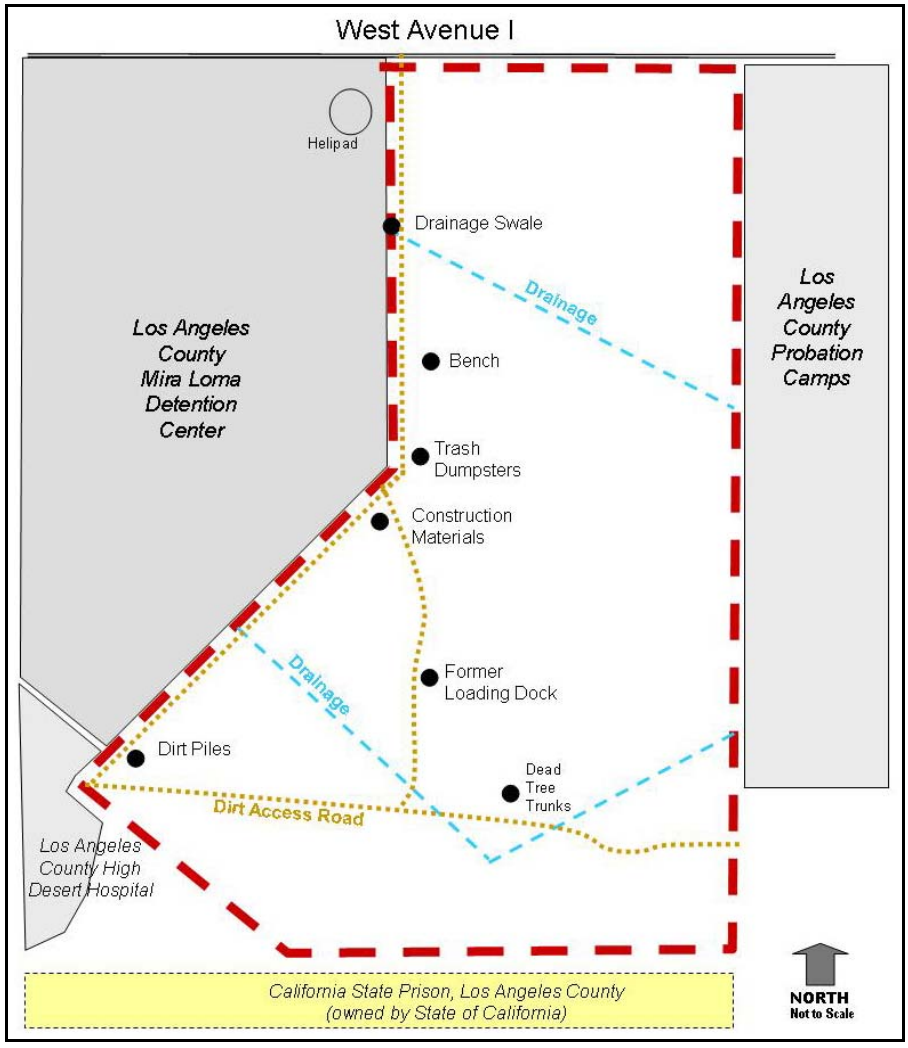
Sampling and analysis of environmental media were not part of the scope of work for this Phase I environmental site assessment. Therefore, samples of environmental media with potential for contamination, such as soil and/or groundwater, were not collected as part of this investigation.

4.2 SITE DESCRIPTION

The subject property is located in the northern central portion of the County of Los Angeles property along West Avenue I between 60th Street West and 50th Street West (Figure 2-2). At the time of the visual site inspection on December 22, 2009, the subject property was not fenced. The subject property is located between two secure facilities (Mira Loma Detention Center and the probation camps) and is visible from sentry towers at the Mira Loma Detention Center. Although the area is not directly used by surrounding institutional operations, the Sheriff's Department maintains patrol over the area and will request that persons leave the area.

An unpaved dirt road provides access to a northeastern entry point to the Mira Loma Detention Center and its eastern perimeter. Dirt roads are present within the subject property as shown on Figure 4-1.

Figure 4-1. Features on the Subject Property



An unpaved storm water drainageway is found at the northwestern boundary of the subject property. Drainage swales are present on either side of the dirt road. The drainage appears to run across the property to the probation camps at the northeastern side of the subject property. Four steel posts and a discarded, modern concrete park bench are found south of the drainage swale.

The ground surface of the subject property is covered with dirt and contains typical ruderal and desert scrub vegetation dominated by tumbleweed. No Joshua tree or other desert woodland species are found on the subject property (with the exception of dead tree trunks as shown on Figure 4-1). Vegetation has grown around extensive areas of broken asphalt paving material found consistently throughout the entire subject property.

Discarded construction materials, including strips of steel plating (for road surfaces), are found near the dirt road. Steel plates such as these are used by Sheriff's Department personnel for driving over soft areas of the subject property. Further along the road on the interior of the subject property, remnants of a former loading dock are present. The dock structure is constructed of painted steel and wood. The steel members of the loading dock are placed in a soil embankment.

Remnants of dead tree stumps (possibly Joshua trees) are found at the southern-central portion of the subject property. A drainageway has formed across the lower portion of the subject property (this drainage is also not paved or otherwise improved). Dirt mounds have been placed at the southwestern edge of the subject property. Vegetation and deteriorating asphalt paving are consistently present on the southern side of the subject property. Photographs of the subject property are provided in Appendix D.

4.3 STORAGE OF CHEMICALS OR HAZARDOUS MATERIALS

The following section discusses the findings for hazardous substances (hazardous materials and hazardous wastes) and petroleum products (both new and used petroleum products) for the subject property.

Hazardous substances include hazardous materials, hazardous wastes, photochemicals, PCBs, and air pollutants. Although not meeting the definition of hazardous substances, petroleum products and their wastes are included in the discussions in this section. Interviews with persons knowledgeable about the subject property provide the basis for most of the historical information, as well as technical reports that were reviewed for this study.

Interviews with persons knowledgeable about the subject property have indicated that the storage and/or use of hazardous materials generally did not occur on this property, with the exception of possible limited storage associated with past uses as an airfield. Based on aerial photos taken in 1942 (Appendix A), any hazardous materials would have primarily been confined to the hangars.

During the visual site inspection of the subject site, obvious signs of contamination from hazardous materials and petroleum products (visible stains on the ground and/or stressed vegetation) were not observed on the subject property. Storage of chemicals was not evident during the visual site inspection.

Chemicals or hazardous materials from past uses would not be considered a concern unless a release of hazardous materials causing contamination of a structure or the environment had occurred. Available data indicated that hazardous materials and/or petroleum-based products have not been released at the subject property to cause contamination of the surrounding environment.

4.3.1 Hazardous and Petroleum Waste

According to available data and interviews conducted with persons knowledgeable about the subject property, hazardous and petroleum wastes were not stored at the subject property. It is possible that hazardous and petroleum products may have been stored at the former War Eagle Field but such storage is presumed to have occurred at or closer to the airplane hangars west of the subject property. Although there is a potential for past leaks and/or spills at the former War Eagle Field, aviation fuel is highly volatile. Any residual contamination from a past fuel leak or spill is unlikely. No records of any crashes associated with the War Eagle Field were found during this study.

As part of its Site Cleanup Program, the State of California Department of Toxic Substances Control (DTSC) identifies the subject property as one of three former airfields that comprise the Polaris Flight Academy site. As of July 1, 2005, the DTSC cleanup status of this site is “Inactive - Needs Evaluation”. Although the DTSC classified the site as a Formerly Used Defense Site (FUDS), the U.S. Army Corps of Engineers (USACE) has issued a categorical exclusion and ineligible finding for the Polaris Flight Academy site because it was a Defense Plant Corporation site that was never owned or operated by the U.S. Department of Defense (USACE, 1998). Based on this finding, any cleanup of the site is not eligible for funding under the Defense Environmental Restoration Account (DERA). Although ineligible for remediation in the FUDS program, there are no previous studies available to indicate whether this site is contaminated or not.

There are no current activities conducted on the subject property that would be expected to generate hazardous and petroleum wastes. There are no recycling centers or gasoline stations on the subject property. In addition, available data and the site reconnaissance have indicated that there are currently no hazardous waste storage facilities on the subject property. During the visual site inspection of the subject site, obvious signs of contamination from hazardous and petroleum waste (visible stains on the ground and/or stressed vegetation) were not observed.

4.4 STORAGE TANKS

4.4.1 Aboveground Storage Tanks

There were no aboveground storage tanks or evidence of past aboveground storage tanks observed on the subject property.

4.4.2 Underground Storage Tanks

There were no underground storage tanks or evidence of past underground storage tanks observed on the subject property.

4.4.3 Pipelines, Hydrant Fueling and Transfer Systems

There were no pipelines, hydrant fueling or transfer systems or evidence of past structures of this type observed on the subject property.

4.5 ASBESTOS

The subject property does not contain any buildings or structures that would have been constructed with asbestos.

4.6 RADON

All of Los Angeles County is categorized by the U.S. Environmental Protection Agency as Zone 2 for radon (USEPA, 2009). Zone 2 counties have a predicted average indoor radon screening level of between 2 and 4 picoCuries per liter of air (pCi/L), which indicates a moderate potential for radon occurrence. The EPA action level for indoor airborne radon is 4 pCi/L.

The radon potential of the subject property is not considered to be an environmental or health concern at this time because the proposed use of the property is not expected to include construction of occupied buildings.

4.7 LEAD-BASED PAINT

There are no buildings on the subject property. Painted surfaces on the subject property include the discarded construction materials such as steel plates and the former loading dock. Old surfaces such as these may contain lead-based paint.

4.8 POLYCHLORINATED BIPHENYLS

There are no transformers or electrical equipment on the subject property. For this reason, polychlorinated biphenyls (PCB) would not be present on the subject property. No visible signs of leakage or spills were observed.

4.9 EVIDENCE OF ENVIRONMENTAL CONCERN

4.9.1 Stained Soil, Pavement and Concrete

No evidence of stained soil, pavement or concrete was observed at the subject property.

4.9.2 Stressed and Protected Vegetation

No evidence of stressed or protected vegetation was observed at the subject property.

4.9.3 Air Quality

There were no unusual odors detected at the subject property.

4.10 MECHANICAL SYSTEMS AND UTILITIES

Mechanical systems associated with natural gas, water, wastewater, communication system and air conditioning were not observed on the subject property. Based on the presence of metal poles that could have functioned as airfield light poles, buried mechanical systems associated with electrical power may be present on the subject property.

No evidence of electrical, water and gas lines or shut off valves were observed on the subject property.

4.11 WELLS

There were no wells observed on the subject property. The nearest wells include Los Angeles County Department of Public Works water extraction wells approximately 0.75 mile southeast of the subject property (USGS, 2003).

4.12 WASTEWATER TREATMENT, COLLECTION AND DISCHARGE

No onsite septic systems or leach fields were identified on the subject property. Storm water that could fall on the subject property during a rain event would be absorbed into surrounding soils or travel as sheet flow into drainageways that traverse the site.

4.13 OIL/WATER SEPARATORS

There are no known oil/water separators on the subject property.

4.14 PESTICIDES

Evidence of bulk storage of pesticides and other similar chemicals was not identified for the subject property. There is no evidence of past agricultural use of the property prior to its former use as a training airfield during World War II. The routine application of pesticides and herbicides on the subject property may have occurred prior to the airfield. Residual pesticide and other constituents may be present in the soil on the property as a result of past application. The concentration of these constituents on the site would not be expected to be harmful to human health.

4.15 MEDICAL OR BIOHAZARDOUS WASTE

No onsite disposal of medical/biohazardous waste was identified or observed at the subject property.

4.16 ORDNANCE

No evidence of ordnance use or disposal was identified at the subject property.

4.17 RADIOACTIVE WASTE

No evidence of radioactive material use or disposal was identified for the subject property.

4.18 SOLID WASTE DISPOSAL

Limited onsite disposal of solid waste was identified at the subject property. Solid waste on the subject property is limited to construction materials or waste, dead tree trunks and other structures as described in Section 4.2. Domestic, wind-blown trash was also observed on the subject property.

4.19 PONDS AND LAGOONS

No ponds or lagoons were identified at the subject property.

4.20 SEPTIC SYSTEMS

No evidence of any onsite septic systems was identified on the subject property.

4.21 PITS AND DEPRESSIONS

No evidence of pits or depressions was identified on the subject property, with the exception of the drainage swales.

4.22 FLOOR DRAINS, SUMPS AND CLARIFIERS

The subject property does not contain any No evidence of floor drains, sumps or clarifiers were identified at the subject property.

4.23 GROUNDWATER

No onsite groundwater monitoring wells were identified on the subject property.

4.24 DRINKING WATER QUALITY

No drinking water wells or drinking water systems were identified on the subject property. Drinking water for the subject property is not available at this time.

4.25 CULTURAL RESOURCES

Based on relevant documents, there are currently no documented prehistoric archaeological sites or cultural sites on the subject property. There are no sites listed on the subject property that are listed on the National Register of Historic Places, California Register of Historical Resources, or the California Historical Resources Information System. The subject property does not contain any properties designated as California Historical Landmarks or Points of Historical Interest. There are no historic landmarks within one half mile of the subject property (TIS, 2009b). The project site has not recently been subject to a cultural resources survey.

War Eagle Field, located at 60th Street East and West Avenue I, and which overlays a portion of the subject property, is designated as a Historic California Post by the California State Military Museum (California State Military Department, 2009).

4.26 WETLANDS AND FLOODPLAINS

There are no federal jurisdictional wetlands identified on and within 0.5 mile of the subject property. The southeastern portion of the subject property is located within the designated 500-year floodplain (TIS, 2009b).

4.27 THREATENED AND ENDANGERED SPECIES

There are no Federally- and State-listed endangered species that have been previously recorded on the subject property or in the project area. Based on the limited and marginal biological habitat, Federal- or State-listed threatened or endangered species would not be expected to inhabit the subject property. Five special status species (without Federal or State listing) have been documented in the immediate area as summarized on Table 4-2.

Table 4-2. Sensitive Species Documented Near the Subject Property

Common (*Scientific*) Name	Remarks
Alkali mariposa lily (*Calochortus striatus*)	The habitat for this rare, bulbiferous perennial is chaparral, chenopod scrub and alkali meadows; it prefers saline/alkaline soil conditions and can go years without flowering. An Area of Critical Environmental Concern for this species has been designated approximately 0.25 mile south/southeast of the site within California State Prison, Los Angeles County property. This species is on the California Native Plant Society (CNPS) List 1B, has not State status, and is a federal Species of Concern.
Parry's spineflower (*Chorizanthe parryi* var. *parryi*)	The habitat for this rare, bulbiferous perennial is chaparral, chenopod scrub and alkali meadows; it prefers saline/alkaline soil conditions and can go years without flowering. An Area of Critical Environmental Concern for this species has been designated approximately 0.25 mile south/southeast of the site within California State Prison, Los Angeles County property. This species is on the CNPS List 1B, has not State status, and is a federal Species of Concern.
Silvery legless lizard (*Anniella pulchra pulchra*)	Found in sandy or loose loamy soils in a wide variety of habitats including sparse vegetation in deserts. Documented occurrences of this lizard within Lancaster city limits occurred in 1988 and 2005. The silvery legless lizard is adapted for burrowing which requires soils with a high fraction of sand. A 2-mile diameter circular Area of Critical Environmental Concern has been designated for this species and encompasses the entire subject property. This species has no federal status and is a state Species of Special Concern.
Ferruginous hawk (*Buteo regalis*)	Ferruginous hawks winter in open habitats and may forage over non-native grasslands occasionally utilizing plowed fields in the winter. This species has no federal status and is a state Species of Special Concern.

Table 4-2. Sensitive Species Documented Near the Subject Property (Cont'd)

Common (*Scientific*) Name	Remarks
Burrowing owl (*Athene cunicularia*)	This small owl favors flat, open grassland and sparse shrubland ecosystems, typically characterized by absence of tree canopy. Burrowing owls in California are found in association with ground squirrels and often use their burrows for shelter and nesting. The nesting season for this species is from February 1 to August 31. This species has been recorded south and northwest of the subject property. This species has no federal status and is a state Species of Special Concern.

Source: City of Lancaster, 2007

SECTION 5

ADJACENT PROPERTIES

As a result of CERCLA Section 120(h) as amended, a requirement exists to inspect properties adjacent (contiguous) to the subject properties, to the extent permitted by owners and operators of such property. Therefore, a visual survey from property boundaries or public access roadways was conducted on properties adjacent to the subject property. In addition, a review was performed of all reasonably obtainable federal, state, and local government records of each contiguous property where there has been a possible disposal and/or release of any hazardous substance or petroleum products or their derivatives, or that is likely to cause or contribute to a release or threatened release of any hazardous substance or petroleum derivative on the real property. A search of existing environmental databases for all properties within one mile of the subject properties was conducted (see Appendix E, *Environmental Database Report*). This section presents the findings of the adjacent property data collection, a summary of the findings of the environmental database report and the visual site inspection. The methodology for evaluating adjacent properties and interviews conducted are as described in Section 4.1.

5.1 LAND USES

Table 5-1 provides a general description of properties directly adjacent to the subject property.

Table 5-1. Properties Adjacent to the Subject Property

Direction	Description of Adjoining Properties
North	Vacant Land (north of Avenue I)
South	California State Prison, Los Angeles County
West	County of Los Angeles Mira Loma Detention Center and High Desert Hospital
East	County of Los Angeles Probation Camps

5.1.1 Surveyed Properties

A limited visual inspection of the adjacent properties outside of the subject property boundaries was conducted on December 22, 2009. Section 4.1.3, *Personal Interviews*, provides a listing of individuals who were interviewed for this environmental site assessment. The visual inspection of adjoining properties was limited to the Mira Loma Detention Center and the High Desert Hospital.

Based on the visual site inspection and environmental database report, there is little to no evidence of storage, release, or disposal of hazardous substances or petroleum and its derivatives on properties adjacent to the subject site. A discussion of the adjacent properties is presented below:

- Directly north of the subject property is primarily vacant land and limited residences along West Avenue I. There may have been past agricultural activities on this land.
- Directly south of the subject property is the California State Prison, Los Angeles County operated by the State of California Department of Corrections and Rehabilitation. This property is completely fenced. The State does not use the subject property.
- East of the subject property is the Challenger Youth Memorial Center and probation camps operated by the Los Angeles County Probation Department. This property is completely fenced. The County Probation Department does not use the subject property.
- West of the subject property is the Mira Loma Detention Center operated by the Los Angeles County Sheriff's Department. This property is completely fenced with the exception of a dirt access and perimeter road that surrounds the facility. The County Sheriff's Department does not

use the subject property other than to patrol or view it from sentry towers along the perimeter. The Sheriff's Department is the only agency that conducts patrols of the property.

Based on the environmental database report, there is one small quantity hazardous waste generator within one-quarter mile of the subject property (High Desert Hospital).

The Butler Oil Company, located at 3301 E. Avenue I approximately 9 miles east of the subject property, is a used oil transfer and storage facility that accepts offsite waste. This site was previously used for fuel storage and distribution; however the fuel tanks have been out of use since 2004. Butler Oil Company employs one tanker truck and has one 10,295-gallon above ground tank and one 550-gallon above ground tank used for storage of used oil. This site is a permitted hazardous waste facility. The cleanup status of this site is "Evaluation Needed" (Envirostor, 2010).

There are no NPL sites, proposed NPL sites, NPL liens or delisted NPL sites within one mile of the subject property. There are no other CERCLA-listed or RCRA sites within 0.5 mile of the subject property or within the zip code 93536.

5.2 STORAGE OF CHEMICALS OR HAZARDOUS MATERIALS

The following section discusses the findings for hazardous substances (hazardous materials and hazardous wastes) and petroleum products (both new and used petroleum products) for adjacent properties based on the background and investigative methodologies previously described in Section 4.3.

Interviews with persons knowledgeable about the subject property have indicated that the storage and/or use of hazardous materials generally did not occur on this property in the past, with the following exceptions:

- There is a potential for storage and use of chemicals and hazardous materials at the adjoining property at Mira Loma Detention Center which was in use as an airfield and flight training academy from 1941 to 1945. As such, there would be a potential for leaks or spills to have occurred. Aviation fuel is highly volatile and residual contamination is unlikely. There are no records of any crashes at the War Eagle Field.
- Past operations at the High Desert Hospital involved the use of chemicals, hazardous materials and radioactive materials. There may have been storage, handling and disposal of photochemical solutions associated with development of medical x-rays.

During the visual site inspection of the adjoining properties, obvious signs of contamination from hazardous materials and petroleum products (visible stains on the ground and/or stressed vegetation) were not observed. Storage of chemicals at the adjoining properties is limited to small quantities of paints, household cleaning supplies and maintenance products as follows:

- At Mira Loma Detention Center, automotive repair is conducted in Building 3644 (hangar). Sodium hypochlorite tablets are stored for the chlorination system at the water treatment plant. Paint, lamps, tubes and waste batteries are picked up for disposal by an outside contractor.
- Current operations at the High Desert Hospital involve the use of chemicals and hazardous materials for the sewage lift station, outpatient laboratory and emergency generator. Degreasers used at the facility are limited to 16-ounce spray cans.

Chemicals or hazardous materials from past uses would not be considered a concern unless a release of hazardous materials causing contamination of a structure or the environment had occurred. Available data indicated that releases of hazardous materials and/or petroleum-based products to cause potential contamination of the surrounding environment is limited to the following incidents:

- In 1991, on-site contamination by heavy metals was reported at the California State Prison in Lancaster. An excavation of the site took place on July 12, 1991 and the excavation report by Kleinfelder recommended No Further Action. The California Department of Toxic Substances Control recommended that a Preliminary Endangerment Assessment be prepared to address illegal disposal of contaminated soil that was removed from the site and dumped on a firing range (TIS, 2009a). There is no information available to indicate that this study was prepared.

- In 1993, approximately 300 pounds of sodium trichlorosilane, a cleaning solvent, was released at the California State Prison in Lancaster and cleaned up by prison personnel. A vapor cloud formed and one inmate was taken to the hospital (TIS, 2009a).
- In 2005, an underground 2-inch natural gas line was struck with a backhoe resulting in a fire and release of an unknown amount of natural gas approximately 1.6 mile southwest of the subject property at 58th Street West and Avenue J-14. The fire was extinguished and the release was secured (TIS, 2009a).
- In 2005, twenty acres of land at Avenue J and 50th Street West (approximately 0.9 mile southeast of the subject property) was investigated as part of a study for the Lancaster Elementary School. No contamination was found and the California DTSC made a determination of No Action Required (TIS, 2009a; Envirostor, 2010).

5.2.1 Hazardous and Petroleum Waste

According to available data and interviews conducted with persons knowledgeable about the subject area, hazardous and petroleum wastes are generated at the Mira Loma Detention Center as part of the automotive maintenance conducted at the hangars. Activities conducted in Hangar 3640 are managed by the County of Los Angeles Internal Services Department. Current activities conducted on the adjoining properties would not be expected to generate hazardous and petroleum wastes that are not properly managed in accordance with applicable requirements.

During the visual site inspection of the adjoining properties, obvious signs of contamination from hazardous and petroleum waste (visible stains on the ground and/or stressed vegetation) were not observed. Biohazardous wastes from the High Desert Hospital are stored in 30-gallon plastic containers in a designated fenced holding area on the southeastern side of the property.

While it is presumed that underground petroleum storage tanks at adjacent properties have been retrofitted with double-walled tanks, it is not known if any historic gas stations may have had leaking underground fuel storage tanks that have resulted in contamination extending beneath the subject property. Any subsurface leaks of petroleum products, primarily from any historical gas station(s) located at a higher or equal elevation to the subject property, that have not been reported may pose a contamination issue primarily for groundwater. Groundwater beneath the subject property is expected to be found at a depth of 60 feet below ground surface.

5.3 STORAGE TANKS

5.3.1 Aboveground Storage Tanks

There are four aboveground storage tanks within 0.5 mile of the subject property:

- An aboveground storage tank with secondary containment is located at the helipad located at the northeastern section of the Mira Loma Detention Center.
- A 10,000-gallon elevated water storage tank is located along 60th Street West at the Mira Loma Detention Center.
- A 400,000-gallon concrete water reservoir is located along 60th Street West at the Mira Loma Detention Center.
- An aboveground liquid oxygen storage tank is located at High Desert Hospital.

5.3.2 Underground Storage Tanks

Underground petroleum storage tanks are required to be retrofitted with double-walled tanks in accordance with UST regulations (Title 23, Div. 3, Chap. 16) as administered by the California Water Resources Control Board. There are three locations with underground storage tanks within one half mile of the subject property: Mira Loma Detention Center; High Desert Hospital; and, California State Prison-Los Angeles County (Table 5-2). Other underground storage tanks in the area are located to the southeast as summarized on Table 5-2.

There were three leaking underground storage tanks reported from the vicinity of the subject property. The incident at Mira Loma Detention Center is closed while cleanup sites further southeast of the subject property are still active. These sites are summarized on Table 5-3.

Table 5-2. Underground Storage Tanks in the Area of the Subject Property

No.	Description of Tank(s)	Owner	Address	Distance from Subject Property	Status
1	One 8,031-gallon split tank (unleaded and diesel) for gas station	Los Angeles County Sheriff's Department	Mira Loma Detention Center 45100 N. 60th Street West Lancaster, CA 93534	0.42 mile west	Permitted; has been upgraded. Tank is fiberglass, double-walled, with Phase 1 vapor recovery system.
2	One 4,300-gallon diesel	Los Angeles County Department of Health Services	High Desert Hospital 44900 N. 60th Street West Lancaster, CA 93536	0.22 mile southwest	Permitted; has been upgraded. Tank is double-walled; used for emergency power supply.
3	One 2,500-gallon diesel	State of California	California State Prison, Los Angeles County 44750 60th Street West Lancaster, CA 93536	0.43 mile south	Permitted. One 10,000-gallon gasoline UST and one 4,000-gallon diesel UST were removed in March 2008. Facility also has four secondary containment UST holding tanks for accidental spillage.
4	One 4,000-gallon diesel	Verizon California	42727 N. 50th Street West Palmdale, CA 93550	2.78 miles southeast	Two USTs removed (1968 and 1992), replaced with one UST in 1991, and permitted.
5	One 12,000-gallon unleaded; One 6,000-gallon premium; and one-6,000 diesel.	Minute Service Dairy, Inc.	41940 N. 50th Street West Palmdale, CA 93550	3.82 miles southeast	Three USTs removed in 1997, replaced in 1998, and permitted.

UST underground storage tank
Source: TIS, 2009a; Higgins, 2009; Allen, 2009; Geotracker, 2010

Table 5-3. Leaking Underground Storage Tanks in the Project Area

No.	Owner	Address	Distance from Subject Property	Status
1	Sheriff's Department – Mira Loma Detention Center	45100 N. 60th Street West Lancaster, CA 93534	0.42 mile west	LUST Cleanup Site; Case Closed/No Further Action Letter (Sept 2003)
2	Mobil Oil Corporation S/S #18-DX9	2343 W. Avenue J Lancaster, CA 93536	~3.4 miles southeast	LUST Cleanup Site; Open – Site Assessment (March 2008)
3	Los Angeles County Sheriff's Department	Lancaster Station 1010 W. Avenue J Lancaster, CA 93534	~4.63 miles southeast	LUST Cleanup Site; Gasoline Leak Reported on July 22, 1993; Open – Site Assessment (July 26, 1993)

LUST leaking underground storage tank
Source: TIS, 2009a; Envirostor, 2010; Geotracker, 2010

5.3.3 Pipelines, Hydrant Fueling and Transfer Systems

There were no pipelines, hydrant fueling or transfer systems or evidence of past structures of this type observed on the adjoining properties.

5.4 ASBESTOS

The use or presence of asbestos containing material (ACM) at the adjoining properties was suspected based on personnel interviews due to age of buildings and typical construction materials in the buildings. At Mira Loma Detention Center, asbestos may be expected in 9-inch x 9-inch vinyl floor tiles in the maintenance building, although this flooring may have been covered (encapsulated). Also at the Mira Loma Detention Center, asbestos may be present on underground steam lines that are located in tunnels.

5.5 RADON

All of Los Angeles County is categorized by the U.S. Environmental Protection Agency as Zone 2 for radon (USEPA, 2009). Zone 2 counties have a predicted average indoor radon screening level of between 2 and 4 picoCuries per liter of air (pCi/L), which indicates a moderate potential for radon occurrence. The EPA action level for indoor airborne radon is 4 pCi/L. Buildings in adjoining properties have not been tested for radon levels.

5.6 LEAD-BASED PAINT

The presence of lead-based paint at the adjoining properties was suspected based on personnel interviews due to age of buildings and typical construction materials in the buildings. At Mira Loma Detention Center, most of the original buildings have been repainted and any lead-based paint has never been abated.

5.7 POLYCHLORINATED BIPHENYLS

Polychlorinated biphenyls (PCB) may be present in electrical transformers and in the ballasts of fluorescent light fixtures in any of the original buildings at Mira Loma Detention Center. Leaks or spills from light ballasts were not observed. Depending on the age of the buildings, light ballasts may utilize PCB-containing dielectric fluid and mercury-containing fluorescent bulbs may also be present.

Pole-mounted transformers that may contain PCB may be present at the northwestern corner of the Mira Loma Detention Center. Some of these buildings at the Mira Loma Detention Center have had modifications. Non PCB-type transformers are in use at the High Desert Hospital.

5.8 EVIDENCE OF ENVIRONMENTAL CONCERN

5.8.1 Stained Soil, Pavement and Concrete

No evidence of stained soil, pavement or concrete was observed at the adjoining properties.

5.8.2 Stressed and Protected Vegetation

No evidence of stressed vegetation was observed at the adjoining properties.

5.8.3 Air Quality

There were no unusual odors detected at properties adjoining the subject property.

5.9 MECHANICAL SYSTEMS AND UTILITIES

Mechanical systems associated with electrical power, natural gas, and water were observed at the adjoining properties.

Electricity is provided to the Mira Loma Detention Center and High Desert Hospital by Southern California Edison from a substation located on Avenue I.

The hangars and trailers at Mira Loma Detention Center are heated by natural gas, while the main buildings are heated with a steam system. There is no natural gas system at High Desert Hospital which uses steam generated onsite.

Groundwater is the principal source of water at Mira Loma Detention Center and High Desert Hospital.

5.10 WELLS

Water wells are located on the Mira Loma Detention Center property along 60th Street West. The nearest wells include Los Angeles County Department of Public Works water extraction wells approximately 0.75 mile southeast of the subject property (USGS, 2003).

5.11 WASTEWATER TREATMENT, COLLECTION AND DISCHARGE

No onsite septic systems or leach fields were identified on the adjoining properties. Wastewater is transported via trunk sewers to the County of Los Angeles Sanitation District water reclamation plant. Storm water that could fall on the adjoining properties during a rain event would be absorbed into surrounding soils or nearby storm drains.

5.12 OIL/WATER SEPARATORS

There are no known oil/water separators on the adjoining properties at Mira Loma Detention Center and High Desert Hospital.

5.13 PESTICIDES

Evidence of bulk storage of pesticides and other similar chemicals was not identified for the adjoining properties. While there is no evidence of past agricultural use prior to the former uses described in Table 3-2, the routine application of pesticides and herbicides on the adjoining properties most likely occurred in the past. Residual pesticide and other constituents may be present in the soil on the property as a result of past application. The concentration of these constituents on the site would not be expected to be harmful to human health.

Pest control is provided to adjoining properties by an outside contractor. No storage of pesticides or associated chemicals occurs on the adjoining properties.

5.14 MEDICAL OR BIOHAZARDOUS WASTE

No onsite disposal of medical/biohazardous waste was identified or observed at the Mira Loma Detention Center. Biohazardous wastes from the High Desert Hospital are stored in 30-gallon plastic containers in a designated fenced holding area on the southeastern side of the property.

5.15 ORDNANCE

No evidence of ordnance use or disposal was identified at the adjoining properties.

5.16 RADIOACTIVE WASTE

No radioactive material use or disposal occurs at the High Desert Hospital at this time. Radioactive material was previously generated and stored at High Desert Hospital as part of the former nuclear medicine facility.

5.17 SOLID WASTE DISPOSAL

Solid waste is stored at the adjoining properties in trash receptacles and bins which are hauled away by licensed haulers.

5.18 PONDS AND LAGOONS

No ponds or lagoons were identified at the adjoining properties.

5.19 SEPTIC SYSTEMS

No evidence of any onsite septic systems was identified on the adjoining properties.

5.20 PITS AND DEPRESSIONS

No evidence of pits or depressions was identified on the adjoining properties except for drainage swales.

5.21 FLOOR DRAINS, SUMPS AND CLARIFIERS

No evidence of sumps or clarifiers were identified at the adjoining properties.

5.22 GROUNDWATER

Onsite groundwater wells are located at the Mira Loma Detention Center property.

5.23 DRINKING WATER QUALITY

At the time of the site inspection, drinking water for the Mira Loma Detention Center was being provided by the onsite water supply system which is fed by groundwater. Groundwater drawn from the upper aquifer of the Antelope Valley basin is considered to be of good quality with dissolved solids concentrations of 200 to 800 milligrams per liter (mg/l). Water quality generally meets the maximum concentration limits of 1,000 mg/l per Title 22 of the State Code of Regulations (City of Lancaster, 2007).

5.24 CULTURAL RESOURCES

Based on a preliminary assessment, there are currently no documented prehistoric archaeological sites or cultural sites on the adjoining properties. These properties have not been subject to a recent cultural resources investigation.

5.25 WETLANDS AND FLOODPLAINS

There are three wetlands located 0.15 mile east, 0.26 mile southeast, and 0.29 mile south of the subject property (TIS, 2009b). The wetlands are mapped within the Los Angeles County Challenger Youth Center (probation camps) and at the California State Prison, Los Angeles County.

5.26 THREATENED AND ENDANGERED SPECIES

There are no Federally- and State-listed endangered species that have been previously recorded on any of the adjoining properties. Based on the limited biological habitat available on the institutional properties that surround the subject property, Federal- or State-listed threatened or endangered species would not be expected to inhabit these areas. Five special status species (without Federal or State listing) have been documented in the immediate area as summarized on Table 4-2.

5.27 PRIME AND UNIQUE FARMLANDS

The adjoining properties are not classified as Prime or Unique Farmland. The adjoining properties are classified as Urban and Built-Up Land (California Department of Conservation, 2009b) indicative of the institutional facilities that compose this land. There is no agricultural production on or near the adjoining properties.

SECTION 6

RECORDS REVIEW

Parsons retained the services of an environmental database company to search applicable regulatory agency lists and standard environmental record sources to identify locations of potential concern. A database report was acquired in support of this environmental site assessment in December 2009. Tables 6-1 and 6-2 provide a listing of environmental databases utilized by the environmental database company. The complete environmental database search report is provided in Appendix E.

In addition to the above databases, other federal and state supplemental environmental databases were also searched. These databases include information such as permitted facilities handling PCBs, criminal cases involving environmental issues, and remedial action reports.

According to the environmental database report, a few nearby facilities and sites have been identified to have been previously contaminated from industrial activities. In addition, the report identified hazardous waste generators and sites containing USTs.

In addition to the environmental database search, government records relevant to National Environmental Policy Act (NEPA) data were also searched by the environmental database company. Table 6-3 provides a summary of NEPA related government records reviewed.

Table 6-1. Federal Environmental Databases

Database	Database Information
National Priorities List (NPL)	The NPL, also known as the Superfund list, is a subset of the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database. The NPL database identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As a result, the environmental database company provides polygon coverage for over 1,000 NPL site boundaries produced by the EPA Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.
Proposed NPL	This database contains sites/facilities which are proposed to be placed on the NPL (refer to the NPL database).
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	The CERCLIS database contains data on potentially hazardous waste sites that have been reported to the EPA by states, municipalities, private companies, and private persons. Notification to the EPA is pursuant to Section 103 of CERCLA. The CERCLIS database contains sites that are either proposed to or on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL.
CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP)	Beginning in February 1995, CERCLIS sites designated NFRAP have been removed from the CERCLIS database. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these priorities and has archived these as historical records so the EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Table 6-1. Federal Environmental Databases (Cont'd)

Database	Database Information
Corrective Action Report (CORRACTS)	The CORRACTS database identifies hazardous waste handlers with RCRA corrective action activity. The database shows which nationally defined corrective action core events have occurred for every handler that has currently or previously had corrective action activity.
Federal RCRA Generators List	This 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). Conditionally exempt small quantity generators (CESQG) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQG) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQG) generate over 1,000 kg of hazardous waste or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.
Emergency Response Notification System (ERNS)	The ERNS is an EPA national computer database system that is used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS reporting system contains preliminary information on specific releases, including the spill location, the substance released, and the responsible party. The ERNS report only includes releases from 1988 to the last quarterly update.

Table 6-2. State of California Environmental Databases

Database	Database Information
UST/AST	The UST/AST is a database identifying underground and aboveground storage tanks in the State of California. This database is maintained by the State Water Resources Control Board Leaking Underground Storage Tank Information System.

Table 6-3. Government Records/Agencies for NEPA Data

Database/Agency	Database/Records Information
Natural Areas Map	This database contains information on natural areas (officially designated wilderness areas, wildlife preserves, sanctuaries, refuges, wild and scenic rivers, fish and wildlife, threatened and endangered species, and critical habitat data.
National Register of Historic Places	This database contains the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.
Federal Emergency Management Agency (FEMA)	This agency provides information on flood zones.
National Wetlands Inventory (NWI)	This database provides a listing of areas designated as wetlands.
Federal Communications Commission (FCC)	This agency provides information on antenna towers and/or supporting structures, such as cellular towers.

The following available studies, investigations, reports, and records were reviewed in preparing this environmental site assessment:

- Track Info Services Environmental FirstSearch™ Report (Radius Report). Target Property: Mira Loma Detention Center, 5816 West Avenue I, Lancaster, CA 93536. Job Number 442230. Prepared for Parsons. December 8, 2009.

This document contains a summary of environmental databases that were searched for relevant information on hazardous materials management and releases at the subject properties and at sites listed in prescribed environmental databases. Databases searched included a review of local agency records.

In addition to the above document, various sites on the Internet were also accessed to obtain relevant and applicable data. These sites include, but were not limited to, regulatory and other Internet sites.

6.1 ENVIRONMENTAL LIEN REPORT REVIEW

No environmental liens or other limitation on activity or use were found recorded at Los Angeles County, California Public Records Office affecting the subject property asset effective from October 18, 1948 to December 17, 2009 (Banks Environmental Data, 2009).

6.2 AGENCY RECORDS REVIEW

Databases searched as part of the Track Info Services records review included a review of local agency records.

SECTION 7

DATA GAPS

The environmental site assessment presents available information on the environmental condition of the subject property and adjacent properties in a single document. Where data gaps existed in the available information, the environmental site assessment identifies those particular data gaps. As a result, sampling and analysis field efforts may be necessary to bridge identified data gaps. The environmental site assessment may be periodically updated by the County of Los Angeles to reflect the most current information and data. This Phase I environmental site assessment identified the following data gaps:

- The current property owner does not have any knowledge of past activities and practices at the subject property because it has not been in direct use by any of the adjoining entities or operations. There are no past employees who were identified with prior business on the subject property that could be interviewed for this assessment.
- It is also not known to the current owner if petroleum handling and storage may have occurred on the vacant subject property. This property was formerly used as part of an aviation training academy, and it is not known with certainty if there had been previous airplane crashes or spills/leaks of aviation fuel. The current owner has no knowledge of these activities because these activities pre-date ownership of the parcel. There is no site plan for the layout of any fueling operations that may have occurred during the 1941 to 1945 timeframe.
- The geologic and soil stability of the subject property is not known because a site-specific geotechnical investigation has not been conducted at this time.
- The presence of soil or groundwater contamination on or beneath the subject property is not known because a sampling for constituents of concern has not been conducted.
- The extent of further evaluation needed for the former Polaris Flight Academy site, an inactive site in the California Department of Toxic Substances Control Site Cleanup Program, is not known at this time.
- The final resolution concerning the need for a Preliminary Endangerment Assessment that was to have been prepared to address illegal disposal of contaminated soil that was removed from California State Prison in 1991 is not known.
- Government officials representing several of the adjoining properties have not completed the interview questionnaire.

Regulatory compliance issues include violations or potential violations of federal, state, or local laws and regulations that occurred on or near the subject property. There have been no regulatory compliance issues identified for the subject property.

SECTION 8

CONCLUSIONS

This Phase I Environmental Site Assessment has been prepared in conformance with the scope and limitations of ASTM Practice E 1527-05 for property located on the south side of West Avenue I between 60th Street West and 50th Street West in the city of Lancaster, Los Angeles County, California. This assessment has revealed no evidence of recognized environmental conditions in connection with the property with the exception of the following:

- Although no visual signs of contamination from the adjoining properties was observed or reported in the environmental database, there may be a possibility that hazardous substances and/or petroleum products may have been disposed of on or near the site based on the historical use for airfield operations, accessibility of the site (not fenced), and heavy metal contamination at the adjacent property to the south. Without any prior soil testing, it is not possible to conclusively determine that the site is not contaminated by substances such as petroleum hydrocarbons and/or heavy metals.
- Based on the findings of the December 2009 visual site inspection, lead-based paint may be present on painted surfaces of the discarded materials found on the subject property (i.e., former loading dock and construction materials).
- Based on the absence of buildings on the subject property and the findings of the December 2009 visual site inspection, asbestos containing material, and polychlorinated biphenyls are not likely to be present on the subject property. These materials may be present on the adjoining properties but would not likely pose a health hazard at the subject property.

Table 8-1 provides a summary of all environmental findings for the subject property. Information concerning the presence of natural, mineral, or economic resources pertaining to the subject property was not identified through documents/records reviews, personnel interviews, or the site reconnaissance.

Table 8-1. Subject Property Facility Matrix

Subject Property	Facility Type and Size	Year of Constr	Non-Standard Utilities[1]	Hazardous/ Petroleum Substances[2]	Storage Tanks[3]	Radon, PCB, and ACM[4]	LBP[5]	Visual Site Inspection Findings[6]
Un-developed site located between the Mira Loma Detention Center and Probation Camps along Ave I between 60th St. West and 50th St. West	Proposed Solar Energy Facility ~65 acres	War Eagle Field constr in 1941	NA	No Evidence	NA	Radon – Zone 2, PCB and ACM not expected	On painted surfaces of discarded constr materials and former loading dock	No Evidence

NA Not applicable

1 Non-Standard Utilities – Locations served by oil/water separators or alternate systems for wastewater treatment.

2 Hazardous/Petroleum Substances: HazMat-Sites where hazardous materials were stored, used, or released/spilled; Pesticides-Sites where pesticides were stored, mixed, or offered for retail sale; Medical-Sites were medical supplies were stored or used; Photochemical-Sites where photochemicals were stored or used; Ionizing Radiation-Sites where source of ionizing radiation (e.g., an x-ray machine) was used/stored in the facility; Ordnance-Sites where explosive ordnance was stored or activities involving ordnance occurred; HazWaste Satellite Accumulation Point (SAP)-Hazardous waste generator/satellite accumulation point (can accumulate up to 55 gallons); HazWaste Storage- Less-than 90-day accumulation (can accumulate indefinite quantity for up to 90 days); Petroleum-Sites that use/store petroleum products or recovered/used petroleum stored, generated, or collected.

3 Storage Tanks – none known or observed

4 Radon, PCB, or ACM: Radon- located in area designated as Zone 2 for radon (2 - 4 pCi/L); PCB- fluorescent light fixtures observed; ACM - Known and/or suspect ACM may be present non-friable ceiling and floor tiles.

5 LBP – painted surfaces.

6 Visual Site Inspection Findings – Observation of obvious signs of contamination and/or environmental concern/issues.

SECTION 9

RECOMMENDATIONS

Based on the ASTM 1527-05 standard definition of a recognized environmental condition and the conclusions of this Phase I environmental site assessment, recognized environmental conditions have not been confirmed in relation to the subject property. However, the following issues are considered potential recognized environmental conditions requiring further action:

1. Construction materials deposited on the subject property (i.e., any painted surfaces, trailer and former loading dock) should be sampled for lead-based paint. In the event that lead-based paint is detected, all removal and disposal should be conducted in accordance with applicable regulatory requirements.
2. Subsurface soil sampling should be conducted in representative areas of the subject property to investigate the potential presence of residual petroleum hydrocarbons and heavy metals. This is because of the absence of previous studies for this property, accessibility of the site from the road, and the potential for migration of heavy metals released at the California State Prison, Los Angeles County located approximately 0.39 miles southwest of the subject property.
3. Because of the potential liquefaction hazard, a site-specific geotechnical investigation should be conducted to ascertain the geologic and soil stability of the subject property.

Per the findings above, it is recommended that further investigations for lead-based paint, residual petroleum hydrocarbons and heavy metals be planned and conducted before construction to determine presence of these hazardous materials at the subject property.

SECTION 10

SPECIAL TERMS AND CONDITIONS

This Phase I environmental site assessment has been prepared for the exclusive use of the County of Los Angeles Department of Public Works.

10.1 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

This Phase I Environmental Site Assessment has been prepared in conformance with the scope and limitations of ASTM Practice E 1527-05.

10.2 LIMITING CONDITIONS AND METHODOLOGY USED

This investigation and report is based upon data and information obtained during the site visit performed by Parsons personnel for the properties identified herein and is based solely upon the condition of the properties on the date of site reconnaissance, supplemented by information and data obtained by Parsons from other sources and as described herein. Any subsurface sampling or sampling of hazardous materials was specifically excluded from this Phase I environmental site assessment. For this reason, no inspection or opinion is included regarding the confirmed existence or absence of asbestos-containing materials, lead-based paint or other contamination on the site.

The evaluation and conclusions contained in this report have been prepared in light of the expertise and experience of Parsons. However, in evaluating the property, Parsons has relied in good faith upon representations and information furnished by individuals noted in the report with respect to operations and existing property conditions and the historical uses of the property to the extent that they have not been contradicted by data from other sources. Accordingly, Parsons accepts no responsibility for any deficiency, misstatements, omissions, misrepresentations, or fraudulent acts of persons interviewed. In addition, Parsons will not accept liability for any loss, injury, damage or claim arising directly or indirectly from any use or reliance on this report.

This assessment included a visual investigation for the site and surrounding areas, a historical review of the site, interviews with tenants of adjoining properties, contacts with regulatory agencies, and obtaining of various documentation and records pertinent to the site. Because the site is currently vacant and not used by adjoining tenants, there are no current tenants that were interviewed for this study.

Parsons has performed this work, made finding and proposed recommendations described in this report in accordance with the ASTM Standard Practice for Environmental Site Assessments E 1527-05. This warranty stands in lieu of all other warranties, expressed or implied. While this report can be used as a guide, it must be understood that it is neither a rejection nor endorsement of the property.

SECTION 11

STATEMENT OF INDEPENDENCE

Parsons is an employee-owned company and is not affiliated with any financial institutions. Parsons is retained as an independent contractor to provide objective, impartial investigation and analytical services regarding environmentally regulated hazardous or toxic materials.

Parsons has no present or contemplated future ownership interest or financial interest in the real estate that is the subject of this Phase I Environmental Site Assessment. Parsons has no personal interest with respect to the subject matter of the Environmental Site Assessment or the parties involved, and Parsons has no relationship with the property or the owners thereof which would prevent an independent analysis of the environmental or other conditions of these properties.

SECTION 12

STATEMENT OF QUALIFICATIONS

This Phase I Environmental Site Assessment was prepared by Parsons employees Ms. Elvira V. Gaddi, P.E. and Ms. Rosemarie Crisologo.

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the site. We have developed and performed the all appropriate inquiries in conformance with the standards set forth in 40 CFR Part 312.

SECTION 13

SIGNATORY

Parsons has conducted this Phase I Environmental Site Assessment on behalf of the County of Los Angeles Department of Public Works and has reviewed all appropriate records made available, and conducted visual site inspections of the property described below following an analysis of information during the record search. The information contained within the survey report is based on records made available and, to the best of Parsons knowledge, is correct and current as of February 2010.

Prepared by: Rosemarie Crisologo — 02/22/2010

Rosemarie Crisologo
Environmental Scientist
Parsons

Date

Reviewed by: Elvira V. Gaddi — 02/22/2010

Elvira V. Gaddi, P.E
Environmental Professional
Parsons

Date

SUBJECT PROPERTY

The subject property addressed in this Phase I Environmental Site Assessment consists of approximately 65 acres of vacant land south of West Avenue I between 60th Street West and 50th Street West, Lancaster, CA 93536. Figure 2-2 provides a site map of the subject property.

APPENDIX A
HISTORICAL AERIAL PHOTOGRAPHS

Track Info Services, LLC

Historical Aerial Photo

Site: 5816 West Avenue I, Lancaster, CA 93536

Photo Year: 2002



Job Number: 442230

Original Scale of Photo: 1:40,000

Approximate Scale of This Image: 1 in equals 375 ft

Coverage Area Approximately 1/4 Mile Radius From Subject Site

≈ 375 ft

Copyright: Track Info Services, LLC

Track Info Services, LLC

Historical Aerial Photo

Site: 5816 West Avenue I, Lancaster, CA 93536

Photo Year: 1994



Job Number: 442230

Original Scale of Photo: 1:40,000

Approximate Scale of This Image: 1 in equals 375 ft

Coverage Area Approximately 1/4 Mile Radius From Subject Site

≈ 375 ft

Copyright: Track Info Services, LLC

Track Info Services, LLC

Historical Aerial Photo

Site: 5816 West Avenue I, Lancaster, CA 93536

Photo Year: 1989



Job Number: 442230

Original Scale of Photo: 1:40,000

Approximate Scale of This Image: 1 in equals 375 ft

Coverage Area Approximately 1/4 Mile Radius From Subject Site

≈ 375 ft

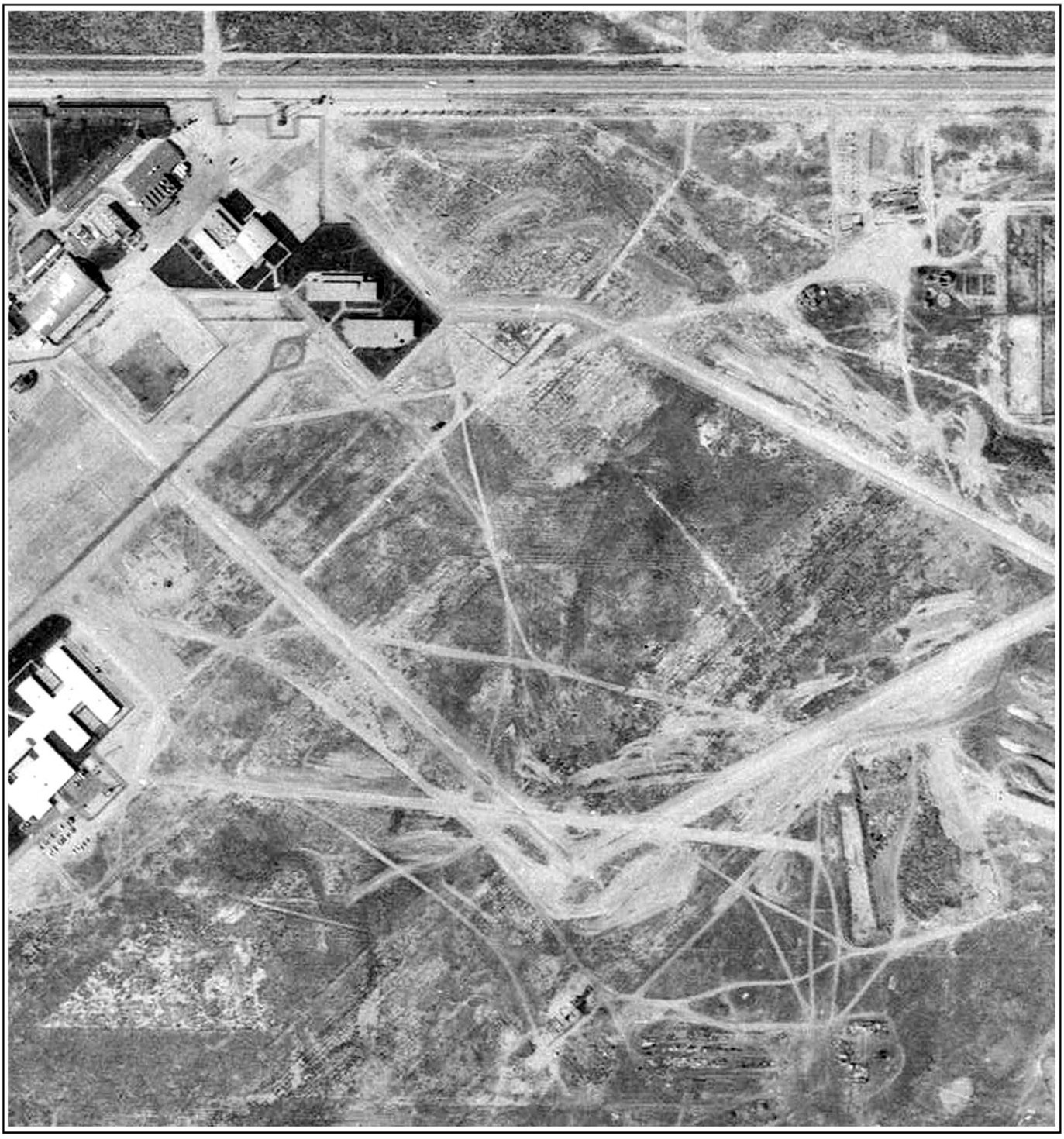
Copyright: Track Info Services, LLC

Track Info Services, LLC

Historical Aerial Photo

Site: 5816 West Avenue I, Lancaster, CA 93536

Photo Year: 1968



Job Number: 442230

Original Scale of Photo: 1:24,000

Approximate Scale of This Image: 1 in equals 375 ft

Coverage Area Approximately 1/4 Mile Radius From Subject Site

≈ 375 ft

Copyright: Track Info Services, LLC



Photograph of Mira Loma and High Desert Hospital (after 1961)

Track Info Services, LLC

Historical Aerial Photo

Site: 5816 West Avenue I, Lancaster, CA 93536

Photo Year: 1953



Job Number: 442230

Original Scale of Photo: 1:20,000

Approximate Scale of This Image: 1 in equals 375 ft

Coverage Area Approximately 1/4 Mile Radius From Subject Site

≈ 375 ft

Copyright: Track Info Services, LLC



Photograph of War Eagle Field (January 1942)

APPENDIX B
CITY DIRECTORY SEARCH

Track Info Services City Directory Report

Prepared for: R Crisologo – Parsons

Client Job No/Name: 442230
TIS Log No: 49029

Target Address:
5816 W. Avenue I
Lancaster, CA 93536

December 14, 2009

DISCLAIMER
The information contained in this report has been obtained from publicly available sources and other secondary sources of information produced by entities other than Track Info Services, LLC (Track Info Services). Although great care has been taken by Track Info Services in compiling and checking the information contained in this report to insure it is current and accurate, Track Info Services disclaims any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence or otherwise, and for any consequences arising therefrom. The data provided hereunder neither purports to be nor constitutes legal or medical advice. It is further understood that Track Info Services makes no responsibility with respect to our customer's, its employees', clients', or customers' use thereof. Track Info Services shall not be liable for any special, consequential, or exemplary damages resulting in whole or in part, from customers' use of the data. Liability on the part of Track Info Services, LLC (Track Info Services) is limited to the monetary value paid for this report. The report is valid only for the geographical parameters specified on the cover page of this report, and any alteration or deviation from this description will require a new report. This report does not constitute a legal or licensed opinion.

Track Info Services City Directory Report

Addresses of Potential Concern: A summary of gas stations, cleaners, automotive shops, and other address occupants of potential environmental concern located on the subject street, within the vicinity of the target address. The addresses listed are included in the body of the report.

YEAR	ADDRESS	OCCUPANT
		No additional Addresses of Potential Concern identified on this street

2009 Haines: West San Fernando Valley p. 77		
5300 W. Avenue I Morrison Custom Management	**5816 W. Avenue I** Address not listed	7362 W. Avenue I Trombley F
2004 Haines: West San Fernando Valley p. 70		
5300 W. Avenue I Morrison Custom Management	**5816 W. Avenue I** Address not listed	7362 W. Avenue I Trombley F
1999 Haines: West San Fernando Valley p. 50		
5300 W. Avenue I Morrison Custom Management	**5816 W. Avenue I** Address not listed	5700 W. Avenue I No response
1994 Haines: West San Fernando Valley p. 42		
5300 W. Avenue I Morrison Cstm Mng	**5816 W. Avenue I** Address not listed	5700 W. Avenue I No response
1989 Haines: Los Angeles North Suburban p. 53		
5300 W. Avenue I Superior Air Hndlne	**5816 W. Avenue I** Address not listed	5700 W. Avenue I LA Co Prbtn Camp
1984 Haines: Los Angeles North Suburban p. 45		
5210 W. Avenue I LA Co Anml Care	**5816 W. Avenue I** Address not listed	5700 W. Avenue I LA Co Prbtn Camp
1979 Haines: Los Angeles North Suburban p. 55		
5210 W. Avenue I LA Co Anml Care	**5816 W. Avenue I** Address not listed	7344 W. Avenue I Pepes Bar & Grill
1974 Haines: Los Angeles North Suburban p. 69		
5210 W. Avenue I LA Co Animal Contrl	**5816 W. Avenue I** Address not listed	7344 W. Avenue I Hanks Place

Track Info Services City Directory Report

1970 B & G Publications: Lancaster-Palmdale p. 8		
5210 W. Avenue I LA Cnty Dog Pound	**5816 W. Avenue I** Address not listed	6846 W. Avenue I Towner John C
1966 B & G Publications: Lancaster-Palmdale p. 6		
5210 W. Avenue I AV Dog Pound	**5816 W. Avenue I** Address not listed	6846 W. Avenue I Towner J
1961 Luskey's: Lancaster-Palmdale p. 6		
5210 W. Avenue I Cou Animal Shelter	**5816 W. Avenue I** Address not listed	5832 W. Avenue I Vacant
1957 Luskey's: Lancaster-Palmdale p. 6		
4752 W. Avenue I No Return	**5816 W. Avenue I** Address not listed	W. Avenue I Highest listing this street is 4752
Earlier Directory or street reference was not found.		

Notes:

- Target address is in bold, the next lowest address on the same side of the street is to the left and the next highest address on the same side of the street is to the right.
- The next lowest and highest addresses are the closest listed for the same side of the street as the target and may or may not be adjacent. They are the closest listed in the source consulted.
- Occupant names and statements such as 'Vacant', 'No info' and 'Under constr' are verbatim.
- Occupant names are listed once per address although they may be listed multiple times in the directory.
- A forward slash between names indicates multiple companies listed under same main company.
- Previous refers to source and entries listed above what is being read.
- The source used is cited in the row above referenced address and occupant.

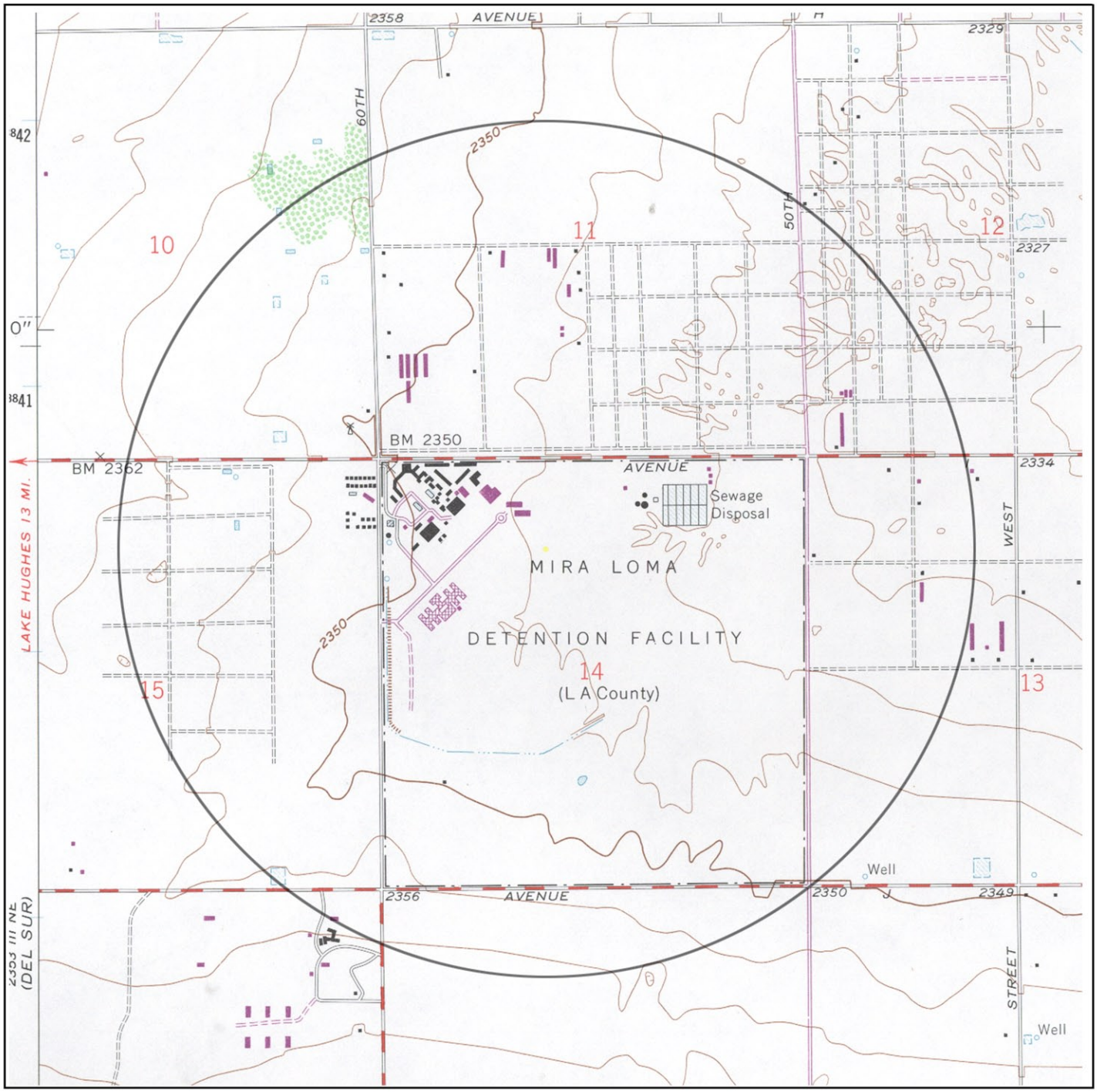
APPENDIX C
HISTORICAL TOPOGRAPHIC MAPS

Track Info Services, LLC

Historical Topographic Map

Site: 5816 West Avenue I, Lancaster, CA 93536

Quadrangle Year: 1974



Building	Railroad
Topo Contour 6000	Tanks
Depression	Primary Highway
Quarry or Open Pit Mine	Trail

0 1/4 1/2 3/4 1 mile

Job Number: 442230

Original Scale of Full Topo: 1:24,000

Quadrangle Name:Lancaster West, CA

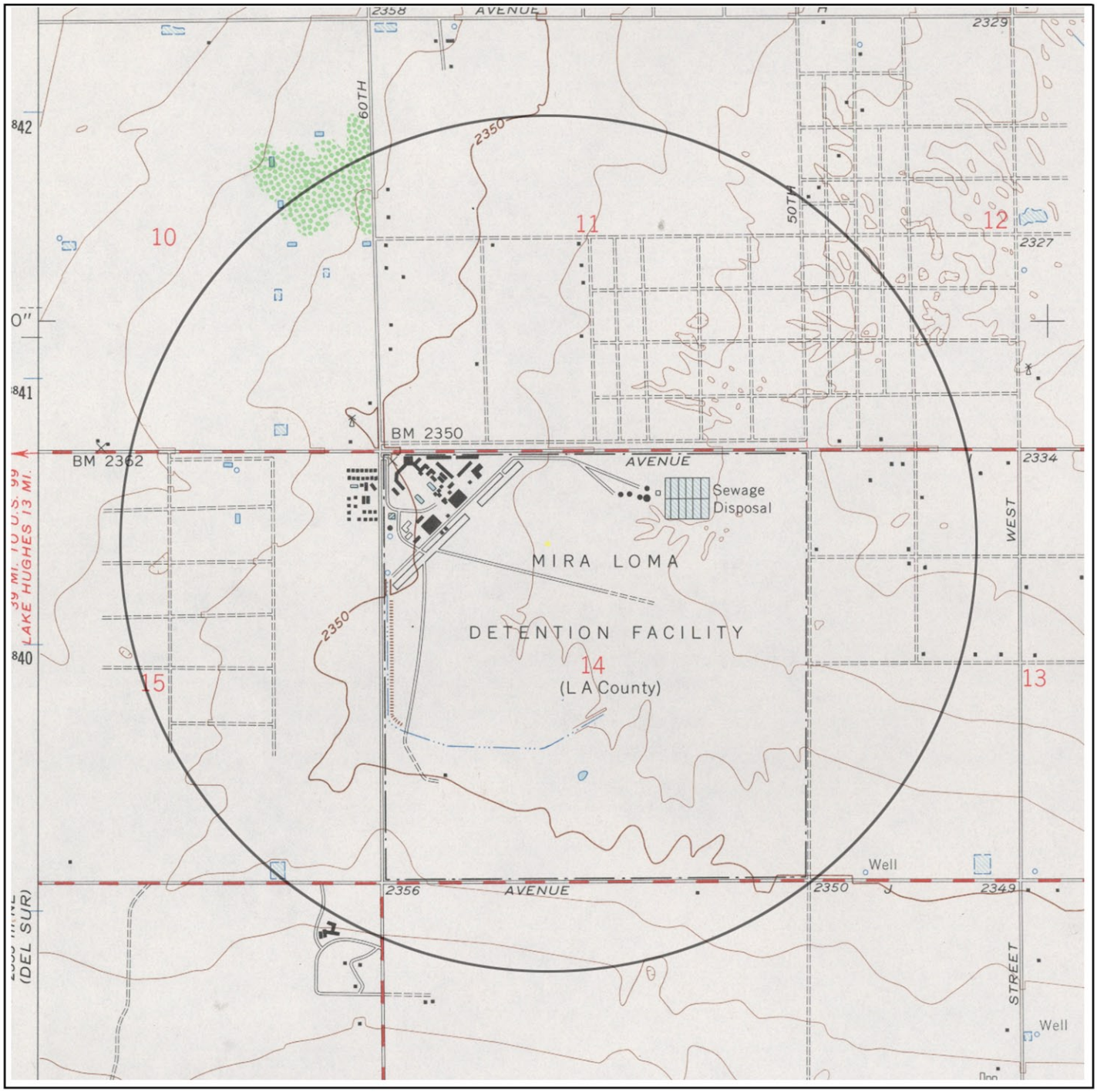
Copyright: Track Info Services, LLC

Track Info Services, LLC

Historical Topographic Map

Site: 5816 West Avenue I, Lancaster, CA 93536

Quadrangle Year: 1958



Building

Topo Contour 6000

Depression

Quarry or Open Pit Mine

Railroad

Tanks

Primary Highway

Trail

0 1/4 1/2 3/4 1 mile

Job Number: 442230

Original Scale of Full Topo: 1:24,000

Quadrangle Name:Lancaster West, CA

Copyright: Track Info Services, LLC

APPENDIX D
SITE PHOTOGRAPHS



Photo 1. Subject Property Looking Northwest at Mira Loma Detention Center



Photo 2. Subject Property Looking East at County Probation Camps



Photo 3. Subject Property Looking East at County Probation Camps



Photo 4. Subject Property Looking Southwest at County High Desert Hospital



Photo 5. Typical Broken Asphaltic Concrete Surface Material on Subject Property



Photo 6. Drainage Structures on Perimeter of Subject Property Looking South at Mira Loma Detention Center Eastern Fence



Photo 7. Drainage Swale on Northwest Portion of Subject Property



Photo 8. Drainage Swale on Northwest Portion of Subject Property



Photo 9. Drainage Swale on Northwest Portion of Subject Property



Photo 10. Concrete/Wood Bench and Four Metal Posts on Subject Property



Photo 11. Dumpster Storage Area on Subject Property



Photo 12. Discarded Construction Materials on Subject Property



Photo 13a. Former Loading Area on Subject Property



Photo 13b. Former Loading Area on Subject Property



Photo 14. Ground Surface of Subject Property



Photo 15. Pole Stands on Subject Property



Photo 16. Pole Stands on Subject Property



Photo 17. Discarded Materials on Subject Property



Photo 18. Tree Trunks on Subject Property



Photo 19. Ground Surface of Subject Property



Photo 20. Unpaved Access Road on Subject Property (looking west)



Photo 21. Disposal of Construction Materials and Waste on Subject Property East of Mira Loma Detention Center



Photo 22. Storage of Construction Materials on Subject Property
East of Mira Loma Detention Center



Photo 23. Disposal of Construction Materials and Waste on Subject Property East of Mira Loma Detention Center



Photo 24. Adjacent Property (West of Subject Property), View of Helipad and Tank at Mira Loma Detention Center



Photo 25. Adjacent Property, View of Hazardous Wastes Storage Area at High Desert Hospital



Photo 26. Adjacent Property, View of Hazardous Wastes Storage Area at High Desert Hospital



Photo 27. Adjacent Property, View of Liquid Oxygen Tank at High Desert Hospital

APPENDIX E
TRACK INFO SERVICES RADIUS REPORT

TRACK INFO SERVICES, LLC

Environmental FirstSearch™ Report

Target Property: Mira Loma Detention Center

5816 WEST AVENUE I

LANCASTER CA 93536

Job Number: 442230

PREPARED FOR:

Parsons

100 W. Walnut St

Pasadena, CA 91124

(626) 440-6048

12-08-09

Tel: (866) 664-9981 *Fax: (818) 249-4227*

Environmental FirstSearch is a registered trademark of FirstSearch Technology Corporation. All rights reserved.

Environmental FirstSearch
Site Information Report

Request Date:	12-08-09	**Search Type:**	AREA
Requestor Name:	Parsons - R Crisologo		0.11 sq mile(s)
Standard:	ASTM-05	**Job Number:**	442230
		Filtered Report	

Target Site: 5816 WEST AVENUE I
LANCASTER CA 93536

Demographics

Sites:	12	**Non-Geocoded:**	6	**Population:**	NA
Radon:	0.6 PCI/L				

Site Location

	Degrees (Decimal)	**Degrees (Min/Sec)**		**UTMs**
Longitude:	-118.229693	-118:13:47	**Easting:**	387375.75
Latitude:	34.700684	34:42:2	**Northing:**	3840342.319
			Zone:	11

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Sanborns	No	
Aerial Photographs	Yes	12-08-09
Historical Topos	Yes	12-08-09
City Directories	Yes	12-08-09
Title Search/Env Liens	Yes	12-08-09
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Search Summary Report

Target Site: 5816 WEST AVENUE I
LANCASTER CA 93536

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	09-11-09	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	09-11-09	0.50	0	0	0	0	-	0	0
CERCLIS	Y	10-01-09	0.50	0	0	0	0	-	0	0
NFRAP	Y	10-01-09	0.50	0	0	0	0	-	0	0
RCRA COR ACT	Y	10-14-09	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	10-14-09	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	10-14-09	0.25	0	0	1	-	-	0	1
RCRA NLR	Y	10-14-09	0.12	0	0	-	-	-	0	0
Federal IC / EC	Y	10-01-09	0.25	0	0	0	-	-	0	0
ERNS	Y	09-13-09	0.12	0	0	-	-	-	2	2
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	0	0
State/Tribal Sites	Y	01-16-09	1.00	0	0	0	1	1	1	3
State Spills 90	Y	05-22-09	0.12	0	0	-	-	-	0	0
State/Tribal SWL	Y	04-27-09	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	04-28-09	0.50	0	0	0	1	-	1	2
State/Tribal UST/AST	Y	05-13-09	0.25	0	0	1	-	-	2	3
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	08-05-09	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	01-16-09	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	NA	0.50	0	0	0	0	-	0	0
State Permits	Y	08-19-09	0.25	0	0	1	-	-	0	1
State Other	Y	05-05-09	0.25	0	0	0	-	-	0	0
FI Map Coverage	Y	10-30-09	0.12	0	0	-	-	-	0	0
- TOTALS -				0	0	3	2	1	6	12

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

HISTORICAL FIRE INSURANCE MAPS

NO MAPS AVAILABLE

12-08-09
442230
5816 WEST AVENUE I
LANCASTER CA 93536

A search of FirstSearch Technology Corporation's proprietary database of historical fire insurance map availability confirmed that there are NO MAPS AVAILABLE for the Subject Location as shown above.

FirstSearch Technology Corporation's proprietary database of historical fire insurance map availability represents abstracted information from the Sanborn® Map Company obtained through online access to the U.S. Library of Congress via local libraries.

Copyright Policy & Disclaimer

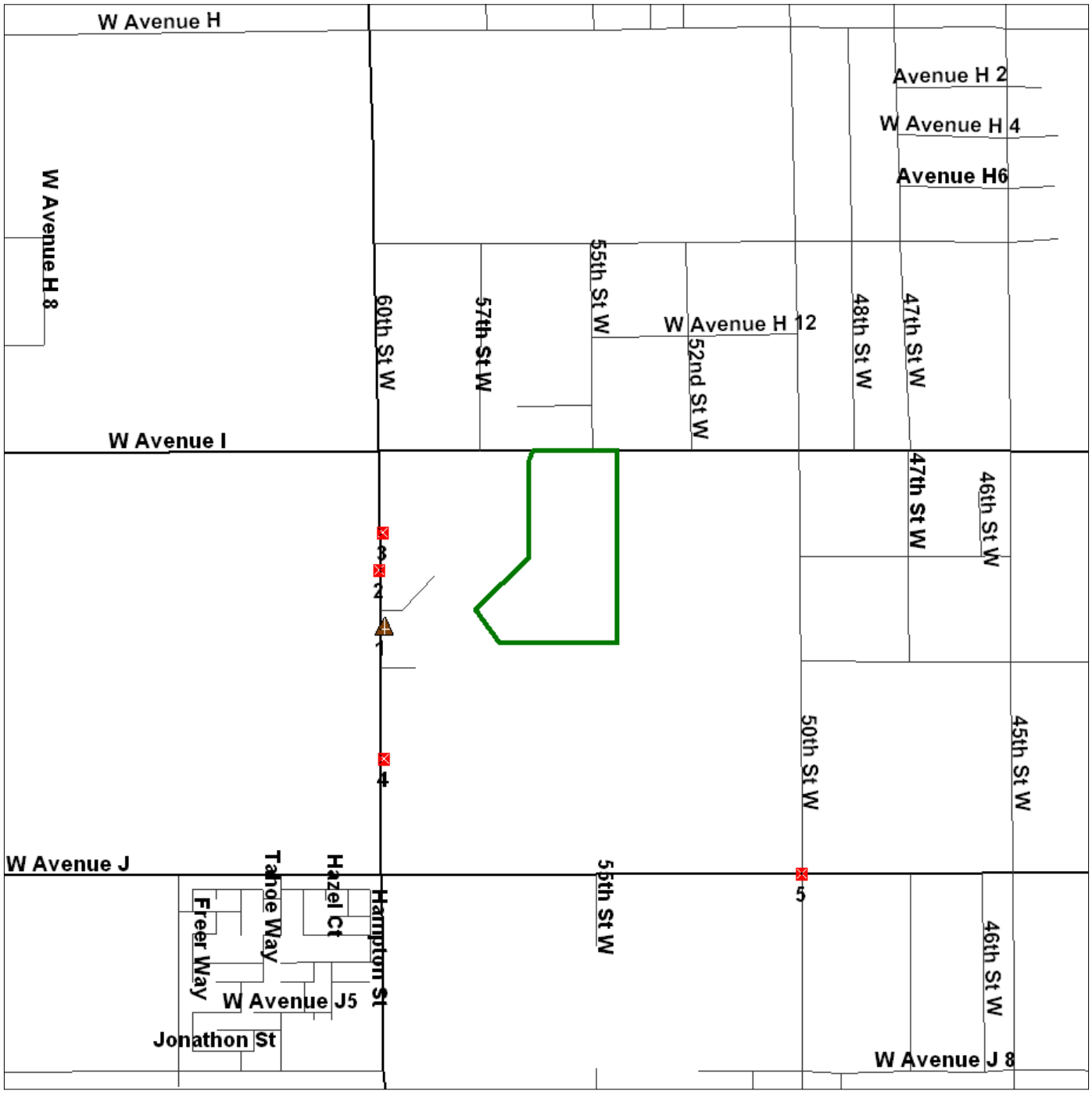
Certain Sanborn® Fire Insurance Maps are copyrighted material and may not be reproduced without the expressed permission of the Sanborn Map Company. FirstSearch Technology Corporation warrants that it will employ its best efforts to maintain and deliver its information in an efficient and timely manner. Customer acknowledges that it understands that FirstSearch Technology Corporation obtains the above information from sources FirstSearch Technology Corporation considers reliable. However, THE WARRANTIES EXPRESSED HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, either expressed or implied, including without limitation any implied warranty of merchantability or fitness or suitability for a particular purpose (whether or not FirstSearch Technology Corporation may know, have reason to know, or have been advised of such purpose), whether arising by law or by reason of industry custom or usage. ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

Environmental FirstSearch

1 Mile Radius from Area

Single Map:

5816 WEST AVENUE I , LANCASTER CA 93536



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

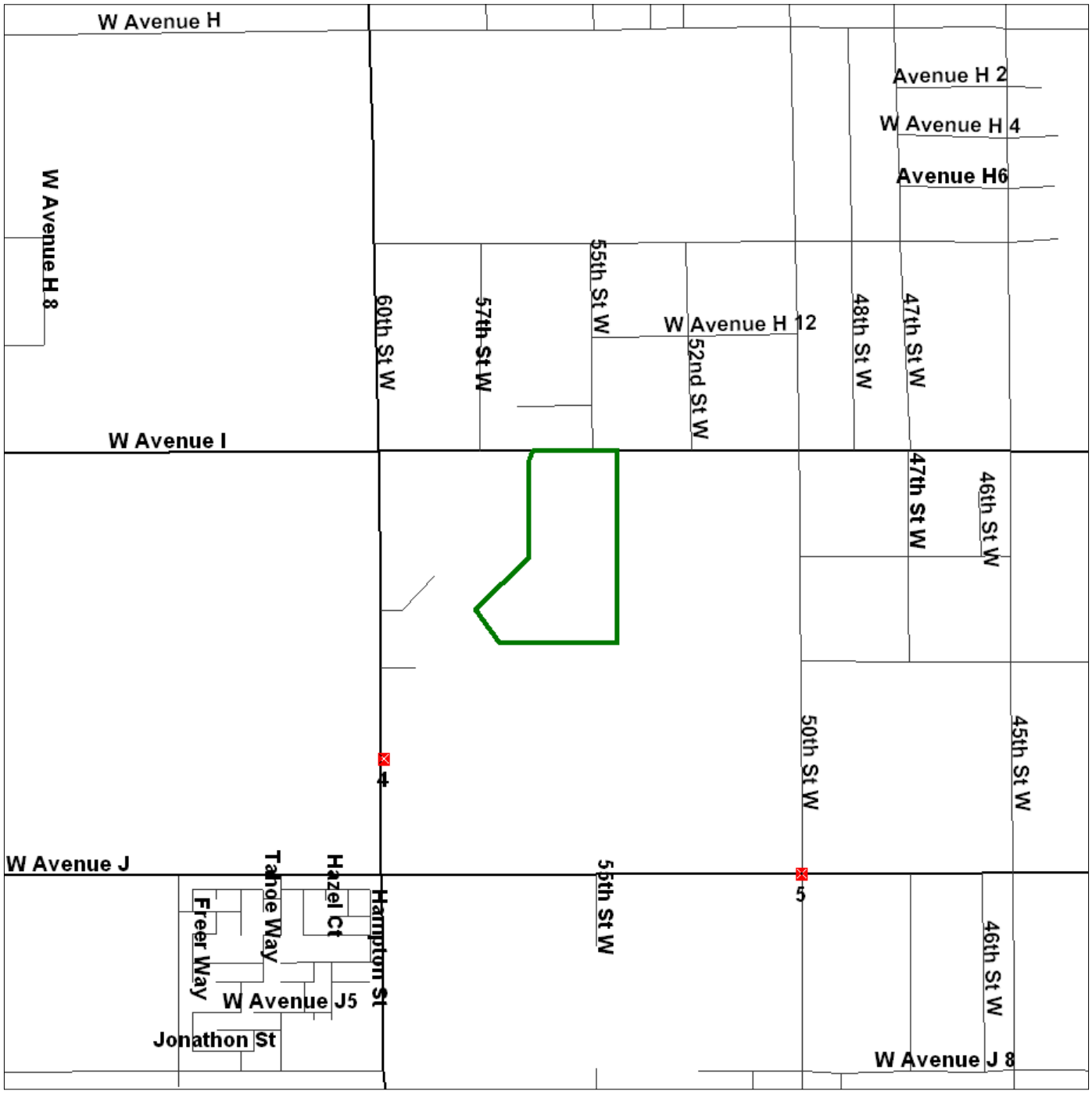
Railroads .....

Environmental FirstSearch

1 Mile Radius from Area

ASTM-05: NPL, RCRACOR, STATE

5816 WEST AVENUE I , LANCASTER CA 93536



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

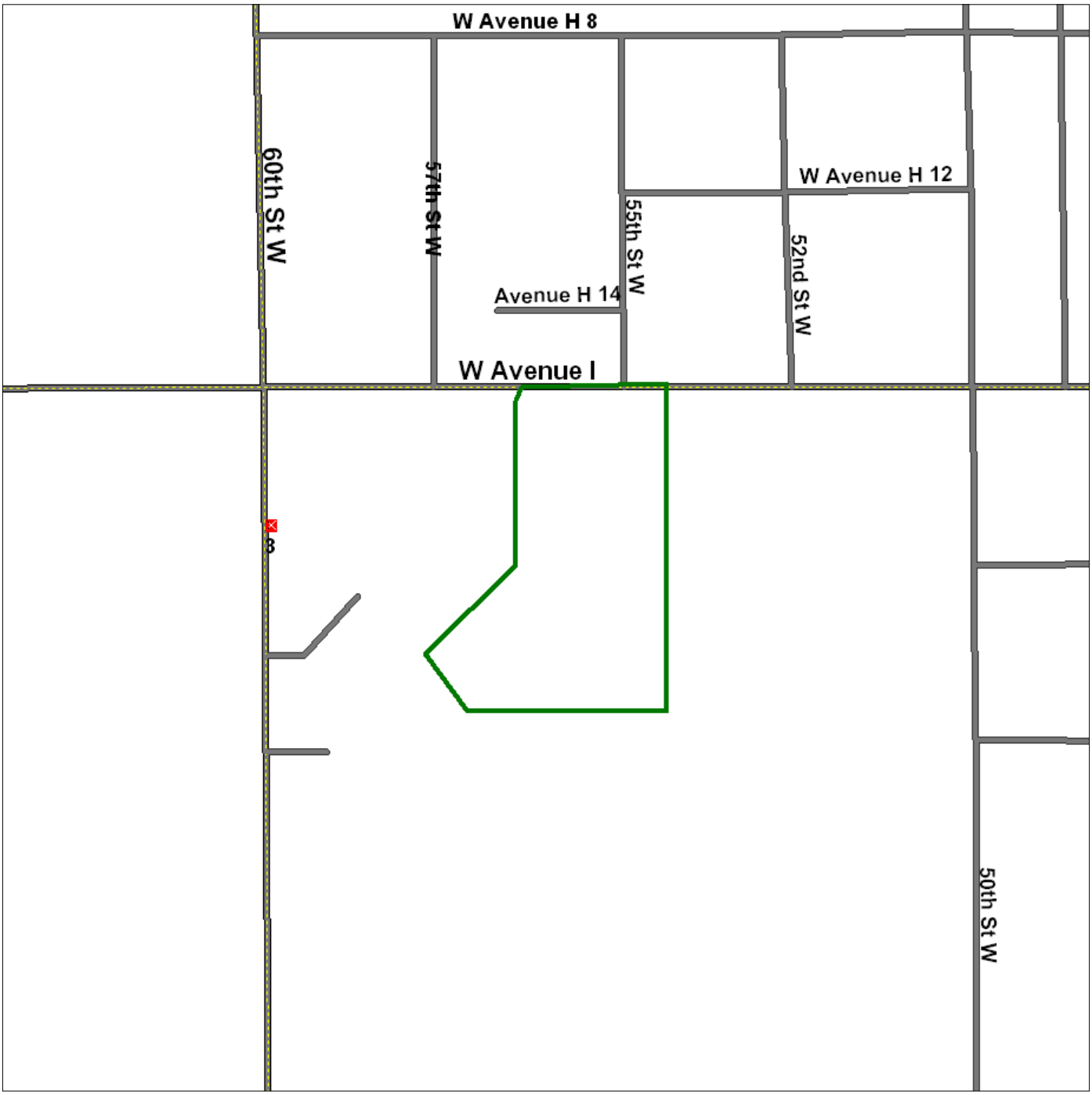
Railroads .....

Environmental FirstSearch

.5 Mile Radius from Area

ASTM-05: Multiple Databases

5816 WEST AVENUE I , LANCASTER CA 93536



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

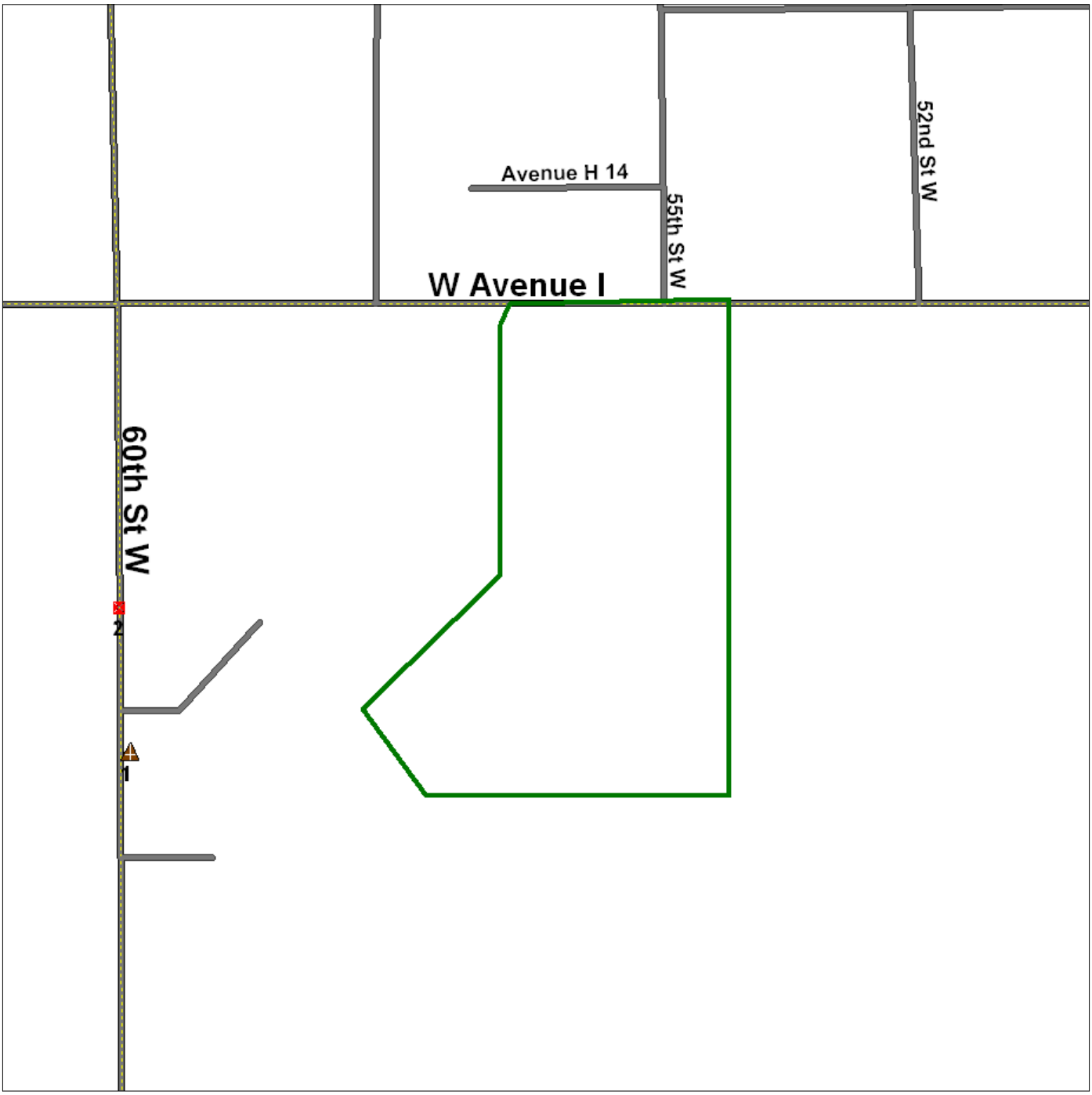
Railroads .....

Environmental FirstSearch

.25 Mile Radius from Area

ASTM-05: RCRAGEN, UST, PERMITS, OTHER

5816 WEST AVENUE I , LANCASTER CA 93536



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

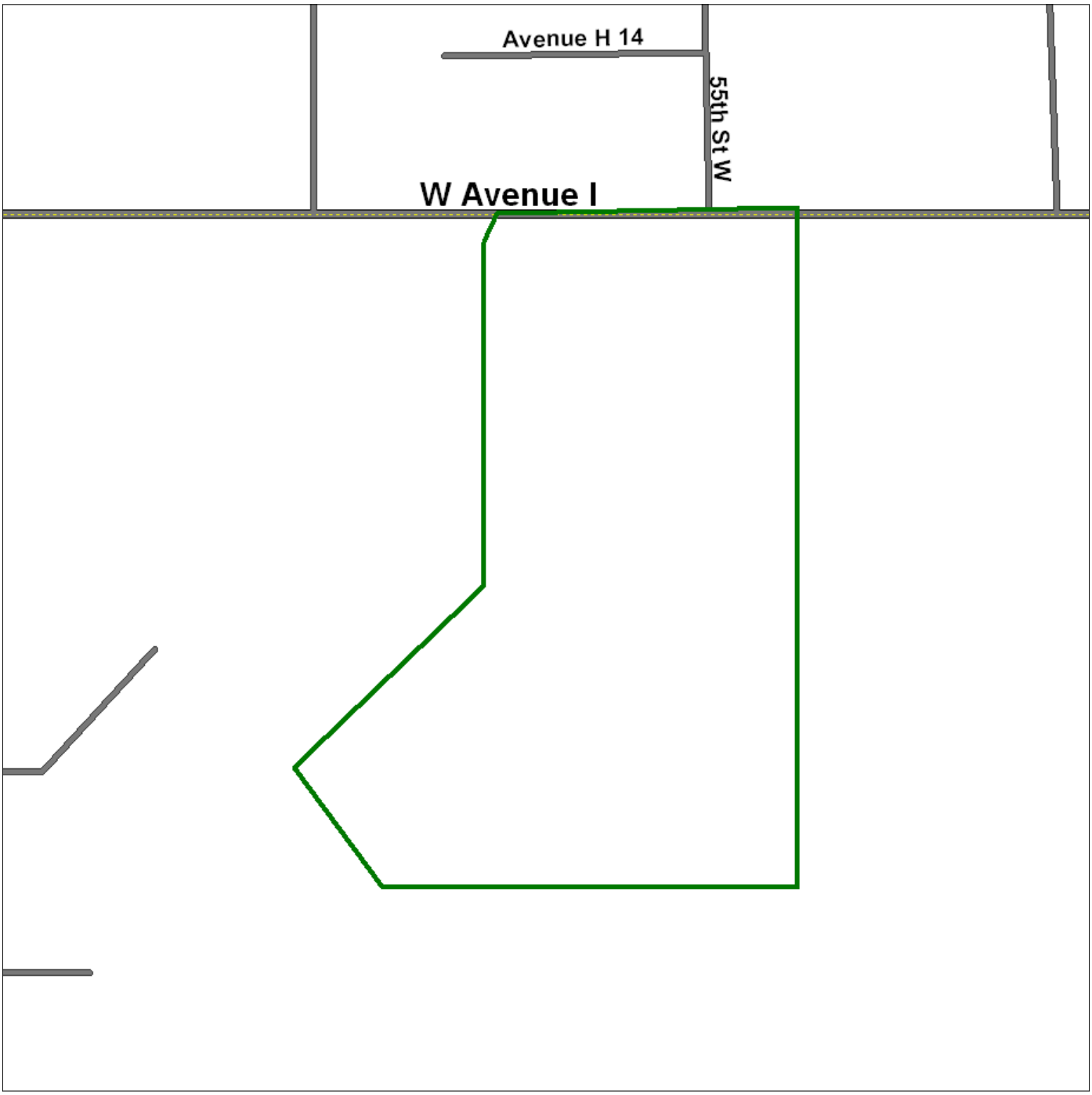
Railroads .....

Environmental FirstSearch

.12 Mile Radius from Area

ASTM-05: SPILLS90, ERNS, RCRANLR, FIMAP

5816 WEST AVENUE I , LANCASTER CA 93536



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

Environmental FirstSearch
Sites Summary Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

TOTAL: 12 **GEOCODED:** 6 **NON GEOCODED:** 6 **SELECTED:** 12

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	*UST*	*LA CO DHS HIGH DESERT HOSPITAL* *LACO010000/NOT REPORTED*	*44900 N 60TH ST WEST* *LANCASTER CA 93536*	*0.22 SW*	*1*
3	*RCRAGN*	*LA HEALTH SVC MIRA LOMA HOSPITAL* *CAD074130014/SGN*	*44900 N 60TH STREET WEST* *LANCASTER CA 93536*	*0.22 SW*	*1*
4	*PERMITS*	*LACO SHERIFF S DEPT/MIRA LOMA* *CAL000094727/INACTIVE*	*45100 60TH ST* *LANCASTER CA 93536*	*0.24 NW*	*2*
5	*LUST*	*LA CO SHERIFFS DEPT MIRA LOMA* *T0603799275/COMPLETED - CASE CLO*	*45100 N 60TH ST W* *LANCASTER CA 93535*	*0.28 NW*	*3*
6	*STATE*	*CALIFORNIA STATE PRISON LA COUNTY* *CAL19920001/PRELIMINARY ENDANGER*	*44750 60TH STREET WEST* *LANCASTER CA 93534*	*0.39 SW*	*4*
8	*STATE*	*LANCASTER ELEMENTARY SCHOOL* *CAL19650034/NO FURTHER ACTION FO*	*AVENUE J/50TH STREET WEST* *LANCASTER CA 93536*	*0.70 SE*	*5*

Environmental FirstSearch
Sites Summary Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

TOTAL: 12 **GEOCODED:** 6 **NON GEOCODED:** 6 **SELECTED:** 12

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
9	*LUST*	*UNKNOWN* *T0603700244/COMPLETED - CASE CLO*	*20544 AVE J-12 E* *LANCASTER CA 93536*	*NON GC*	
10	*UST*	*VERIZON CALIFORNIA* *LACO012070/NOT REPORTED*	*42727 N 50TH ST WEST* *PALMDALE CA 93536*	*NON GC*	
13	*UST*	*MINUTE SERVICE DAIRY INC* *LACO009625/NOT REPORTED*	*41940 N 50TH ST WEST* *PALMDALE CA 93536*	*NON GC*	
18	*STATE*	*MIDDLE SCHOOL SITE NO. 24* *CAL19650038/NO FURTHER ACTION FO*	*AVENUE H-8/40TH STREET WEST* *LANCASTER CA 93536*	*NON GC*	
19	*ERNS*	*NRC-770480/PIPELINE*	*58TH ST WEST LOT NUMBER 138* *LANCASTER CA 93536*	*NON GC*	
22	*ERNS*	*UNKNOWN* *346229/FIXED FACILITY*	*CALIFORNIA STATE PRISON* *LANCASTER CA 93536*	*NON GC*	

Environmental FirstSearch
Site Detail Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 5 **DIST/DIR:** 0.22 SW **MAP ID:** 1

NAME:	LA CO DHS HIGH DESERT HOSPITAL	**REV:**	05/02/09
ADDRESS:	44900 N 60TH ST WEST	**ID1:**	LACO010000
	LANCASTER CA 93536	**ID2:**	THOMAS GUIDE 4014F6
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	RONALD LININGER	**PHONE:**	6619458237

According to the Los Angeles County Department of Public Works the following information is current as of 05/02/09

GENERAL INFORMATION REGARDING SITE

Tax Accessors Parcel /s:	*3203 / 014 / 902*
File Number:	*009856*
File Name:	*LA CO DHS HIGH DESERT HOSPITAL*
Property Owner Name and Type:	*LA CO DEPT OF HEALTH SERVICES / COUNTY AGENCY*
Property Owner Address:	*313 N FIGUEROA ST LOS ANGELES, CA 90012*
Tank Owner Name and Type:	*HIGH DESERT HOSPITAL / COUNTY AGENCY*
Tank Owner Address:	*44900 N 60TH ST WEST LANCASTER, CA 93536*
Tank Owner Phone:	*/*

PERMIT INFORMATION

Permit Number and Category:	*00001182T / TANK*
Permit Type and Date:	*UST OPERATING PERMIT / 19600101*
Permit Expiration Date:	*19650101*
Permit Status:	*REM*
Fee Exempt:	*Yes*
Penalty Date/s:	*/*
Suspension Date and Reason:	*/*

PERMIT INFORMATION

Permit Number and Category:	*0000T1182 / TANK*
Permit Type and Date:	*UST OPERATING PERMIT / 19900627*
Permit Expiration Date:	*20090630*
Permit Status:	*PERM*
Fee Exempt:	*No*
Penalty Date/s:	*/*
Suspension Date and Reason:	*/*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00001*

Unique Tank Number:	*000028004*
Status:	*Removed*
Installation Date:	*19840101*
Owner Number:	*1*
Capacity:	*0000001000*
Content:	
J Fuel Type:	*DIESEL*
CAS Number:	
Product or Waste in Tank (?):	*PRODUCT*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00002*

Unique Tank Number:	*000028005*
Status:	*Permanent*
Installation Date:	*19870820*
Owner Number:	*01*
Capacity:	*0000004000*
Content:	
J Fuel Type:	*DIESEL*
CAS Number:	
Product or Waste in Tank (?):	*PRODUCT*

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 5 **DIST/DIR:** 0.22 SW **MAP ID:** 1

NAME:	LA CO DHS HIGH DESERT HOSPITAL	**REV:**	05/02/09
ADDRESS:	44900 N 60TH ST WEST	**ID1:**	LACO010000
	LANCASTER CA 93536	**ID2:**	THOMAS GUIDE 4014F6
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	RONALD LININGER	**PHONE:**	6619458237

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00001*

Application Closing Number:	*000063778*
Date Tank Closed:	*19930617*
Last Used Date:	*19930617*
Remaining Quantity:	*0000000000*
Inert Fill:	*NO*
Removal Application Number:	*000063778*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00002*

Application Closing Number:	
Date Tank Closed:	
Last Used Date:	
Remaining Quantity:	*0000000000*
Inert Fill:	
Removal Application Number:	

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00001*

Manufacturer:	*UNKNOWN*
Construction Type Description:	
Construction Material Description:	
Construction Lining Description:	
Piping Type Description:	
Piping Construction Description:	
Piping Material Description:	
Piping Leak Detection Description:	
Leak Detection System 1:	
Leak Detection System 2:	
Last Update:	*19930728*
Last Operator:	*E274419*

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00002*

Manufacturer:	*OWENS CORNING*
Construction Type Description:	
Construction Material Description:	
Construction Lining Description:	
Piping Type Description:	
Piping Construction Description:	
Piping Material Description:	
Piping Leak Detection Description:	
Leak Detection System 1:	
Leak Detection System 2:	
Last Update:	*20080214*
Last Operator:	*E288422*

Environmental FirstSearch
Site Detail Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

RCRAGN

SEARCH ID: 1 **DIST/DIR:** 0.22 SW **MAP ID:** 1

NAME:	LA HEALTH SVC MIRA LOMA HOSPITAL	**REV:**	10/14/09
ADDRESS:	44900 N 60TH STREET WEST	**ID1:**	CAD074130014
	LANCASTER CA 93534	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:		**PHONE:**	

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
44900 N 60TH STREET WEST
LANCASTER CA 93534

PHONE: 2139747881

UNIVERSE INFORMATION:

NAIC INFORMATION

62211 - GENERAL MEDICAL AND SURGICAL HOSPITALS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

PERMITS

SEARCH ID: 4 **DIST/DIR:** 0.24 NW **MAP ID:** 2

NAME: LACO SHERIFF S DEPT/MIRA LOMA
ADDRESS: 45100 60TH ST
LANCASTER CA 93536
Los Angeles
CONTACT:

REV: 04/16/08
ID1: CAL000094727
ID2:
STATUS: INACTIVE
PHONE:

THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL HAZARDOUS WASTE MANIFEST INVENTORY (HWMI)
SITE INFORMATION FROM THE CA EPA AND DTSC HAZARDOUS WASTE TRACKING SYSTEM (HWTS) :

Date Record was Created: *9/17/1992*
Inactivity Date: *6/30/2007*
Facility Mail Name:
Facility Mailing Address: *1000 S FREMONT AVE BLDG A-9, EAST 5TH FLR, ALHAMBRA, CA 91803-0000*
Owner Name: *LA CNTY SHERIFFS DEPT*
Owner Address: *1000 S FREMONT AVE BLDG A-9, EAST 5TH FLR, ALHAMBRA, CA 91803-0000*
Contact Name: *DIRECTOR-FACILITIES SRVC*
Contact Address: *1000 S FREMONT AVE, ALHAMBRA, CA 91803-0000*
Contact Phone: *6263003030*

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 1993-1999:

1999 Waste Type: *Asbestos containing waste*
1999 Total Tonnage: *8.428*
1998 Waste Type: *Waste oil and mixed oil*
1998 Total Tonnage: *1.1467*
1997 Waste Type: *Tank bottom waste*
1997 Total Tonnage: *1.5846*
1996 Waste Type: *Aqueous solution with total organic residues less than 10 percent*
1996 Total Tonnage: *0.4587*
1995 Waste Type:
1995 Total Tonnage:
1994 Waste Type:
1994 Total Tonnage:
1993 Waste Type:
1993 Total Tonnage:

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2000-2008:

2008 Waste Type: *Asbestos containing waste*
2008 Total Tonnage: *5.2*
2007 Waste Type: *Asbestos containing waste*
2007 Total Tonnage: *266.3248*
2006 Waste Type: *Tank bottom waste*
2006 Total Tonnage: *0.41*
2005 Waste Type: *Asbestos containing waste*
2005 Total Tonnage: *0.02*
2004 Waste Type: *Unspecified organic liquid mixture*
2004 Total Tonnage: *0.2*
2003 Waste Type:
2003 Total Tonnage:
2002 Waste Type: *Asbestos containing waste*
2002 Total Tonnage: *0.02*
2001 Waste Type: *Asbestos containing waste*
2001 Total Tonnage: *0.3*
2000 Waste Type:
2000 Total Tonnage:

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

LUST

SEARCH ID: 6 **DIST/DIR:** 0.28 NW **MAP ID:** 3

NAME: LA CO SHERIFFS DEPT MIRA LOMA
ADDRESS: 45100 N 60TH ST W
LANCASTER CA 93535
LOS ANGELES
CONTACT:

REV: 04/28/09
ID1: T0603799275
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *LOS ANGELES COUNTY*
REGIONAL BOARD CASE NUMBER:
LOCAL AGENCY: *LOS ANGELES COUNTY*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY:
ADDRESS OF RESPONSIBLE PARTY:
SITE OPERATOR:
WATER SYSTEM:

CASE TYPE: *LUST Cleanup Site*
POTENTIAL CONTAMINANTS OF CONCERN:
POTENTIAL MEDIA AFFECTED:
LEAK CAUSE:
LEAK SOURCE:
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *Completed - Case Closed*
STATUS DATE: *2003-09-09 00:00:00*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): *ENFORCEMENT*
DATE (blank if not reported): *2002-04-03*
ACTION (blank if not reported): *Staff Letter*

ACTION TYPE (blank if not reported): *ENFORCEMENT*
DATE (blank if not reported): *2003-09-09*
ACTION (blank if not reported): *Closure/No Further Action Letter*

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

STATE

SEARCH ID: 2 **DIST/DIR:** 0.39 SW **MAP ID:** 4

NAME: CALIFORNIA STATE PRISON LA COUNTY SITE
ADDRESS: 44750 60TH STREET WEST
LANCASTER CA 93534
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19920001
ID2:
STATUS: PRELIMINARY ENDANGERMENT ASSES
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)
CALIFORNIA DEPARTMENT OF CORRECTIONS

GENERAL SITE INFORMATION

File Name (if different than site name): *CALIFORNIA STATE PRISON LA COUNTY SITE*

Status: *PRELIMINARY ENDANGERMENT ASSESSMENT REQUIRED (PEAR)*
AWP Site Type: *N/A*
NPL Site:
Fund:
Status Date: *10021991*
Lead:
Staff: *JABRAHAM*
Senior Supervisor: *MMONROY*

DTSC Region and RWQCB : *3 / BURBANK*
Branch: *SOUTHERN CA. - A*
RWQCB:
Site Access:
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

PROJECTED ACTIVITIES (blank below = not reported by agency)

Activity: ***(SS)***
Activity Status: *PRELIMINARY ENDANGERMENT ASSESSMENT REQUIRED*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *10021991*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
09191991	*Excavation Report done by Kleinfelder - recommending NFA*

DATE	COMMENT
10021991	*The site was contaminated with heavy metals. The Dept of*

DATE	COMMENT
10021991	*Correction took place an excavation on July 12, 1991 at the*

DATE	COMMENT
10021991	*site. DTSC recommends a high priority PEA because of the*

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

STATE

SEARCH ID: 2 **DIST/DIR:** 0.39 SW **MAP ID:** 4

NAME:	CALIFORNIA STATE PRISON LA COUNTY SITE	**REV:**	07/03/00
ADDRESS:	44750 60TH STREET WEST	**ID1:**	CAL19920001
	LANCASTER CA 93534	**ID2:**	
	Los Angeles	**STATUS:**	PRELIMINARY ENDANGERMENT ASSES
CONTACT:		**PHONE:**	

DATE	COMMENT
10021991	*on-site contamination.*
DATE	**COMMENT**
02091995	*PEA required letter sent, meeting requested to discuss PEA*
DATE	**COMMENT**
02091995	*and illegal disposal of contaminated soil that was removed*
DATE	**COMMENT**
02091995	*from site and dumped on firing range.*
DATE	**COMMENT**
02151995	*Contacts: Wendel Francisco (805) 729-2000, x7123*
DATE	**COMMENT**
02151995	*Environmental Specialist*
DATE	**COMMENT**
02151995	*Larry Hood*
DATE	**COMMENT**
02151995	*Associate Warden of Business Services*
DATE	**COMMENT**
02231995	*Received letter requesting PEA to be sent to Sacramento.*
DATE	**COMMENT**
02241995	*Letter sent to Ms Wanda Nelsen, Proj Dir, DOC, Sacramento*
DATE	**COMMENT**
02241995	*requesting PEA.*

Environmental FirstSearch
Site Detail Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

STATE

SEARCH ID: 3 **DIST/DIR:** 0.70 SE **MAP ID:** 5

NAME: LANCASTER ELEMENTARY SCHOOL
ADDRESS: AVENUE J/50TH STREET WEST
LANCASTER CA 93536
LOS ANGELES
CONTACT:

REV: 07/18/05
ID1: CAL19650034
ID2:
STATUS: NO FURTHER ACTION FOR DTSC
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)
LANCASTER ELEMENTARY SCHOOL

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *NO FURTHER ACTION FOR DTSC*
AWP Site Type: *PROPOSED SCHOOL SITE PROPERTY*
NPL Site: *U*
Fund:
Status Date: *01072005*
Lead: *DEPT OF TOXIC SUBSTANCES CONTROL*
Staff: *LZAREMBA*
DTSC Region and RWQCB : *GLENDALE*
Branch: *SCHOOL EVALUATION*
RWQCB:
Site Access:
Groundwater Contamination:
Number of Sources Contributing to Contamination at the Site:

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *CALSTARS CODE 304483-11*

BACKGROUND INFORMATION (blank below = not reported by agency)
The site is undeveloped, native land. No buildings are located onsite and no utilities currently service the site.

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)
Comments Date: ***01072005***
: *DTSC reviewed a Phase I Environmental Assessment and has made a No Action determination for this Site.*

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

LUST

SEARCH ID: 12 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNKNOWN
ADDRESS: 20544 AVE J-12 E
LANCASTER CA 93536
LOS ANGELES
CONTACT:

REV: 04/28/09
ID1: T0603700244
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *LOS ANGELES COUNTY*
REGIONAL BOARD CASE NUMBER:
LOCAL AGENCY: *LOS ANGELES COUNTY*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY:
ADDRESS OF RESPONSIBLE PARTY:
SITE OPERATOR:
WATER SYSTEM:

CASE TYPE: *LUST Cleanup Site*
POTENTIAL CONTAMINANTS OF CONCERN:
POTENTIAL MEDIA AFFECTED: *Soil*
LEAK CAUSE:
LEAK SOURCE:
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *Completed - Case Closed*
STATUS DATE: *1990-03-07 00:00:00*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): *Other*
DATE (blank if not reported): *1950-01-01*
ACTION (blank if not reported): *Leak Reported*

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 11 **DIST/DIR:** NON GC **MAP ID:**

NAME:	VERIZON CALIFORNIA	**REV:**	05/02/09
ADDRESS:	42727 N 50TH ST WEST	**ID1:**	LACO012070
	PALMDALE CA 93550	**ID2:**	THOMAS GUIDE 4104H4
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	ENVIRONMENTAL AFFAIRS	**PHONE:**	8003318891

According to the Los Angeles County Department of Public Works the following information is current as of 05/02/09

GENERAL INFORMATION REGARDING SITE

Tax Accessors Parcel /s: *3102 / 026 / 800*
File Number: *012171*
File Name: *VERIZON CALIFORNIA*
Property Owner Name and Type: *GTE CALIFORNIA INC / CORPORATION*
Property Owner Address: *1 GTE PL THOUSAND OAKS, CA 91362*
Tank Owner Name and Type: *GTE CALIFORNIA INC / CORPORATION*
Tank Owner Address: *ATTN ENVIRONMENTAL AFFAIRS P O BOX 725 CHINO, CA 91708*
Tank Owner Phone: *800/3318891*

PERMIT INFORMATION

Permit Number and Category: *00000266A / TANK*
Permit Type and Date: *ADD ADDITIONAL TANK / 19860404*
Permit Expiration Date: *19910404*
Permit Status: *REM*
Fee Exempt: *Yes*
Penalty Date/s: */*
Suspension Date and Reason: */*

PERMIT INFORMATION

Permit Number and Category: *00001626B / TANK*
Permit Type and Date: *CLOSURE-BY REMOVAL / 19860616*
Permit Expiration Date: *19910616*
Permit Status: *REM*
Fee Exempt: *Yes*
Penalty Date/s: */*
Suspension Date and Reason: */*

PERMIT INFORMATION

Permit Number and Category: *00001669B / TANK*
Permit Type and Date: *CLOSURE-BY REMOVAL / 19860625*
Permit Expiration Date: *19910625*
Permit Status: *REM*
Fee Exempt: *Yes*
Penalty Date/s: */*
Suspension Date and Reason: */*

PERMIT INFORMATION

Permit Number and Category: *00003985T / TANK*
Permit Type and Date: *UST OPERATING PERMIT / 19920430*
Permit Expiration Date: *20090630*
Permit Status: *PERM*
Fee Exempt: *No*
Penalty Date/s: */*
Suspension Date and Reason: */*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00001*

Unique Tank Number: *000020714*
Status: *Removed*
Installation Date: *19920514*

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 11 **DIST/DIR:** NON GC **MAP ID:**

NAME:	VERIZON CALIFORNIA	**REV:**	05/02/09
ADDRESS:	42727 N 50TH ST WEST	**ID1:**	LACO012070
	PALMDALE CA 93550	**ID2:**	THOMAS GUIDE 4104H4
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	ENVIRONMENTAL AFFAIRS	**PHONE:**	8003318891

Owner Number: *1*
Capacity: *0000005000*
Content:
J Fuel Type: *DIESEL*
CAS Number:
Product or Waste in Tank (?): *PRODUCT*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00002*
Unique Tank Number: *000030561*
Status: *Removed*
Installation Date: *19680101*
Owner Number: *UNKNOWN*
Capacity: *0000001000*
Content:
J Fuel Type: *DIESEL*
CAS Number:
Product or Waste in Tank (?): *PRODUCT*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00003*
Unique Tank Number: *000030701*
Status: *Permanent*
Installation Date: *19950101*
Owner Number: *3*
Capacity: *0000004000*
Content:
J Fuel Type: *DIESEL*
CAS Number:
Product or Waste in Tank (?): *PRODUCT*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00001*
Application Closing Number: *000116401*
Date Tank Closed: *19950126*
Last Used Date: *19950126*
Remaining Quantity: *0000000000*
Inert Fill: *NO*
Removal Application Number: *000116401*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00002*
Application Closing Number: *000112613*
Date Tank Closed: *19860625*
Last Used Date: *19860625*
Remaining Quantity: *0000000000*
Inert Fill: *NO*
Removal Application Number: *000112613*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00003*
Application Closing Number:
Date Tank Closed:
Last Used Date:
Remaining Quantity: *0000000000*
Inert Fill:
Removal Application Number:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 11 **DIST/DIR:** NON GC **MAP ID:**

NAME: VERIZON CALIFORNIA
ADDRESS: 42727 N 50TH ST WEST
PALMDALE CA 93550
LOS ANGELES
CONTACT: ENVIRONMENTAL AFFAIRS

REV: 05/02/09
ID1: LACO012070
ID2: THOMAS GUIDE 4104H4
STATUS: NOT REPORTED
PHONE: 8003318891

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00001*

Manufacturer: *JOORS*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *19950613*
Last Operator: *E240573*

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00002*

Manufacturer: *UNKNOWN*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *19941031*
Last Operator: *E288439*

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00003*

Manufacturer: *JOOR*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description: *ENVIROFLEX*
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *20090113*
Last Operator: *E288422*

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 10 **DIST/DIR:** NON GC **MAP ID:**

NAME:	MINUTE SERVICE DAIRY INC	**REV:**	05/02/09
ADDRESS:	41940 N 50TH ST WEST	**ID1:**	LACO009625
	PALMDALE CA 93550	**ID2:**	THOMAS GUIDE 4104H6
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	JOHN BORG	**PHONE:**	6619433814

According to the Los Angeles County Department of Public Works the following information is current as of 05/02/09

GENERAL INFORMATION REGARDING SITE

Tax Accessors Parcel /s:	*3101 / 017 / 016*
File Number:	*009452*
File Name:	*MINUTE SERVICE DAIRY INC*
Property Owner Name and Type:	*MSD / CORPORATION*
Property Owner Address:	*41940 N 50TH ST WEST QUARTZ HILL, CA 93536*
Tank Owner Name and Type:	*MSD / CORPORATION*
Tank Owner Address:	*41940 N 50TH ST WEST QUARTZ HILL, CA 93536*
Tank Owner Phone:	*805/9433814*

PERMIT INFORMATION

Permit Number and Category:	*00000346H / TANK*
Permit Type and Date:	*CLOSURE BY REMOVAL / 19920613*
Permit Expiration Date:	*19970613*
Permit Status:	*REM*
Fee Exempt:	*No*
Penalty Date/s:	*/*
Suspension Date and Reason:	*/*

PERMIT INFORMATION

Permit Number and Category:	*00000628T / TANK*
Permit Type and Date:	*UST OPERATING PERMIT / 19900503*
Permit Expiration Date:	*20090630*
Permit Status:	*PERM*
Fee Exempt:	*No*
Penalty Date/s:	*/*
Suspension Date and Reason:	*/*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00001*

Unique Tank Number:	*000011524*
Status:	*Removed*
Installation Date:	*19690101*
Owner Number:	*1*
Capacity:	*0000009940*
Content:	
J Fuel Type:	*LEADED GASOLINE*
CAS Number:	
Product or Waste in Tank (?):	*PRODUCT*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00002*

Unique Tank Number:	*000011525*
Status:	*Removed*
Installation Date:	*19690101*
Owner Number:	*UNKNOWN*
Capacity:	*0000009940*
Content:	
J Fuel Type:	*REGULAR UNLEADED GASOLINE*
CAS Number:	
Product or Waste in Tank (?):	*PRODUCT*

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 10 **DIST/DIR:** NON GC **MAP ID:**

NAME:	MINUTE SERVICE DAIRY INC	**REV:**	05/02/09
ADDRESS:	41940 N 50TH ST WEST	**ID1:**	LACO009625
	PALMDALE CA 93550	**ID2:**	THOMAS GUIDE 4104H6
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	JOHN BORG	**PHONE:**	6619433814

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00003*

Unique Tank Number: *000011526*
Status: *Removed*
Installation Date: *19690101*
Owner Number: *UNKNOWN*
Capacity: *0000008000*
Content:
J Fuel Type: *PREMIUM UNLEADED GASOLINE*
CAS Number:
Product or Waste in Tank (?): *PRODUCT*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00004*

Unique Tank Number: *000033861*
Status: *Permanent*
Installation Date: *19970520*
Owner Number: *1*
Capacity: *0000012000*
Content:
J Fuel Type: *REGULAR UNLEADED GASOLINE*
CAS Number:
Product or Waste in Tank (?): *PRODUCT*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00005*

Unique Tank Number: *000033862*
Status: *Permanent*
Installation Date: *19970520*
Owner Number: *2*
Capacity: *0000006000*
Content:
J Fuel Type: *PREMIUM UNLEADED GASOLINE*
CAS Number:
Product or Waste in Tank (?): *PRODUCT*

SPECIFIC TANK INFORMATION FOR TANK NUMBER: *00006*

Unique Tank Number: *000033863*
Status: *Permanent*
Installation Date: *19970520*
Owner Number: *5*
Capacity: *0000006000*
Content:
J Fuel Type: *DIESEL*
CAS Number:
Product or Waste in Tank (?): *PRODUCT*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00001*

Application Closing Number: *000191535*
Date Tank Closed: *19970827*
Last Used Date: *19970827*
Remaining Quantity: *0000000000*
Inert Fill: *NO*
Removal Application Number: *000191535*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00002*

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 10 **DIST/DIR:** NON GC **MAP ID:**

NAME:	MINUTE SERVICE DAIRY INC	**REV:**	05/02/09
ADDRESS:	41940 N 50TH ST WEST	**ID1:**	LACO009625
	PALMDALE CA 93550	**ID2:**	THOMAS GUIDE 4104H6
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	JOHN BORG	**PHONE:**	6619433814

Application Closing Number: *000191535*
Date Tank Closed: *19970827*
Last Used Date: *19970827*
Remaining Quantity: *0000000000*
Inert Fill: *NO*
Removal Application Number: *000191535*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00003*
Application Closing Number: *000191535*
Date Tank Closed: *19970827*
Last Used Date: *19970827*
Remaining Quantity: *0000000000*
Inert Fill: *NO*
Removal Application Number: *000191535*

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00004*
Application Closing Number:
Date Tank Closed:
Last Used Date:
Remaining Quantity: *0000000000*
Inert Fill:
Removal Application Number:

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00005*
Application Closing Number:
Date Tank Closed:
Last Used Date:
Remaining Quantity: *0000000000*
Inert Fill:
Removal Application Number:

TANK CLOSING and REMOVAL INFORMATION (if applicable) FOR TANK : *00006*
Application Closing Number:
Date Tank Closed:
Last Used Date:
Remaining Quantity: *0000000000*
Inert Fill:
Removal Application Number:

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00001*
Manufacturer: *UNKNOWN*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *19980302*
Last Operator: *E240573*

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 10 **DIST/DIR:** NON GC **MAP ID:**

NAME:	MINUTE SERVICE DAIRY INC	**REV:**	05/02/09
ADDRESS:	41940 N 50TH ST WEST	**ID1:**	LACO009625
	PALMDALE CA 93550	**ID2:**	THOMAS GUIDE 4104H6
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	JOHN BORG	**PHONE:**	6619433814

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00002*

Manufacturer: *UNKNOWN*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *19980302*
Last Operator: *E240573*

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00003*

Manufacturer: *UNKNOWN*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *19980302*
Last Operator: *E240573*

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00004*

Manufacturer: *MODERN WELDING*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *20080109*
Last Operator: *E288422*

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00005*

Manufacturer: *MODERN WELDING*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

UST

SEARCH ID: 10 **DIST/DIR:** NON GC **MAP ID:**

NAME:	MINUTE SERVICE DAIRY INC	**REV:**	05/02/09
ADDRESS:	41940 N 50TH ST WEST	**ID1:**	LACO009625
	PALMDALE CA 93550	**ID2:**	THOMAS GUIDE 4104H6
	LOS ANGELES	**STATUS:**	NOT REPORTED
CONTACT:	JOHN BORG	**PHONE:**	6619433814

Last Update: *20080109*
Last Operator: *E288422*

TANK and PIPING MATERIALS (if applicable) FOR TANK : *00006*
Manufacturer: *MODERN WELDING*
Construction Type Description:
Construction Material Description:
Construction Lining Description:
Piping Type Description:
Piping Construction Description:
Piping Material Description:
Piping Leak Detection Description:
Leak Detection System 1:
Leak Detection System 2:
Last Update: *20080109*
Last Operator: *E288422*

Environmental FirstSearch
Site Detail Report

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

STATE

SEARCH ID: 9 **DIST/DIR:** NON GC **MAP ID:**

NAME: MIDDLE SCHOOL SITE NO. 24
ADDRESS: AVENUE H-8/40TH STREET WEST
LANCASTER CA 93536
LOS ANGELES
CONTACT:

REV: 07/18/05
ID1: CAL19650038
ID2:
STATUS: NO FURTHER ACTION FOR DTSC
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)
MIDDLE SCHOOL SITE NO. 24

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *NO FURTHER ACTION FOR DTSC*
AWP Site Type: *PROPOSED SCHOOL SITE PROPERTY*
NPL Site: *U*
Fund:
Status Date: *03252004*
Lead: *DEPT OF TOXIC SUBSTANCES CONTROL*
Staff: *JJONES*
DTSC Region and RWQCB : *GLENDALE*
Branch: *SCHOOL EVALUATION*
RWQCB:
Site Access:
Groundwater Contamination:
Number of Sources Contributing to Contamination at the Site:

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *CALSTARS CODE 304443-11*

BACKGROUND INFORMATION (blank below = not reported by agency)
The property consists of vacant undeveloped land. No roads, buildings, utilities, wells, or other such improvements are located on the property. Aerial photographs and topographic maps indicate that the property historically consisted of vacant undeveloped land vegetated with native desert vegetation from at least 1952 to 1994. Surrounding properties consist of vacant land.

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***PHASE 1 - CALMORTGAGE AND SCHOOL SITE PROPERTIES***
Activity Status: *NO FURTHER ACTION FOR DTSC*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *03252004*
Yards of Solids Removed:
Yards of Solids Treated:
Gallons of Liquid Removed:
Gallons of Liquid Treated:

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)
Comments Date: ***03252004***
: *DTSC reviewed a Phase I Environmental Assessment and has made a No Action determination for this Site.*

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

ERNS

SEARCH ID: 8 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 58TH ST WEST LOT NUMBER 138 AVE J 14
LANCASTER CA
LOS ANGELES
CONTACT: N/A

REV: 12/31/05
ID1: NRC-770480
ID2:
STATUS: PIPELINE
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 8/26/2005 3:55:56 PM **DATE COMPLETE:** 8/26/2005 4:00:21 PM
CALL TAKER: REC7955 **CALL TYPE:** INC

RESPONSIBLE PARTY: N/A
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: WILCOX AND WILCOX CONSTRUCTION COMPANY
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS:
CA

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: AN UNDERGROUND 2 INCH NATURAL GAS LINE WAS STRUCK WITH A BACK HOE RESULTING IN A FIRE AND A RELEASE OF NATURAL GAS.

INCIDENT TYPE:	PIPELINE	**INCIDENT CAUSE:**	OPERATOR ERROR
INCIDENT DATE:	8/26/2005 11:10:00 AM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	UNKNOWN
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	UNKNOWN
PIPELINE TYPE:	OTHER	**DOT REGULATED:**	UNKNOWN
PIPELINE ABOVE GROUND:	BELOW	**EXPOSED UNDERWATER:**	NO
PIPELINE COVERED:	UNKNOWN	**GRADE CROSSING:**	NO
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	YES		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	NO

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

ERNS

SEARCH ID: 8 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 58TH ST WEST LOT NUMBER 138 AVE J 14
LANCASTER CA
LOS ANGELES
CONTACT: N/A

REV: 12/31/05
ID1: NRC-770480
ID2:
STATUS: PIPELINE
PHONE:

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	UNKNOWN
TANK REGULATED:	UNKNOWN	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	NO	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	UNKNOWN
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	YES	**FIRE EXTINGUISHED:**	YES
ANY EVACUATIONS:	NO	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	NO	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	NO
NUMBER FATALITIES:		**ANY DAMAGES:**	YES
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	NO
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	NO	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	NO
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	NO
TRACK CLOSED:	NO	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	AIR	**ADDTL MEDIUM INFO:**	ATMOSPHERE
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	YES
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:		**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	CLEAR	**AIR TEMPERATURE:**	
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	UNKNOWN	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: EXTINGHUISHED THE FIRE AND SECURED THE RELEASE

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

ERNS

SEARCH ID: 8 **DIST/DIR:** NON GC **MAP ID:**

NAME:		**REV:**	12/31/05
ADDRESS:	58TH ST WEST LOT NUMBER 138 AVE J 14	**ID1:**	NRC-770480
	LANCASTER CA	**ID2:**	
	LOS ANGELES	**STATUS:**	PIPELINE
CONTACT:	N/A	**PHONE:**	

COMMUNITY IMPACT:	NO	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: NONE

MATERIAL INFORMATION

CHRIS CODE:	ONG	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: NATURAL GAS
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: 5816 WEST AVENUE I
LANCASTER CA 93536

JOB: 442230

ERNS

SEARCH ID: 7 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNKNOWN
ADDRESS: CALIFORNIA STATE PRISON
LANCASTER CA 93534
LOS ANGELES
CONTACT:

REV: 10/8/1993
ID1: 346229
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/8/1993 **TIME OF SPILL:** 0910

PRODUCT RELEASED (1): SODIUM TRICHLOROSILANE
QUANTITY (1): 300
UNITS (1): LBS

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEANUP BY PRISON PERSONNEL
RELEASE DETECTION: MIXED CHEMICALS AND CAUSED VAPOR CLOUD, 1 INMATE TAKEN TO HOSP.
MISC. NOTES: WILL NOTIFY TWC

DISCHARGER INFORMATION
DISCHARGER ID: 346229 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: UNKNOWN
NAME OF DISCHARGER: UNKNOWN
ADDRESS:

Environmental FirstSearch Descriptions

NPL: ***EPA*** NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.
A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.
FINAL - Currently on the Final NPL
PROPOSED - Proposed for NPL

NPL DELISTED: ***EPA*** NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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 - Deleted from the Final NPL

CERCLIS: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.
PART OF NPL- Site is part of NPL site
DELETED - Deleted from the Final NPL
FINAL - Currently on the Final NPL
NOT PROPOSED - Not on the NPL
NOT VALID - Not Valid Site or Incident
PROPOSED - Proposed for NPL
REMOVED - Removed from Proposed NPL
SCAN PLAN - Pre-proposal Site
WITHDRAWN - Withdrawn

NFRAP: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This 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 a potential NPL site.
NFRAP – No Further Remedial Action Plan
P - Site is part of NPL site
D - Deleted from the Final NPL
F - Currently on the Final NPL
N - Not on the NPL
O - Not Valid Site or Incident
P - Proposed for NPL
R - Removed from Proposed NPL
S - Pre-proposal Site
W – Withdrawn

RCRA COR ACT: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that generate or transport hazardous waste or meet other RCRA requirements.
LGN - Large Quantity Generators
SGN - Small Quantity Generators
VGN – Conditionally Exempt Generator.
Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

RCRA NLR: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:
Failure to report in a timely matter.
No longer in business.
No longer in business at the listed address.
No longer generating hazardous waste materials in quantities which require reporting.

Federal IC / EC: ***EPA*** BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.
FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

ERNS: ***EPA/NRC*** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: ***DOI/BIA*** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

State/Tribal Sites: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at

properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:
1. The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. Formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
2. The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
3. The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750).
Note: Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

State Spills 90: ***CA EPA*** SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field..
Please Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.
Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: ***CA SWRCB/COUNTY*** LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.
SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a

groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation.
SWEEPS / FIDS STATE REGISTERED UNDEGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information.
INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTS are administered by US EPA Region 9.
CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994.
A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified.
Please Note: Track Info Services, LLC collects and maintains information regarding Underground Storage Tanks from majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefor, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: ***CA EPA*** DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type VC. Each Category contains information on properties based upon the type of work taking place at the site. The VC category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.

RADON: ***NTIS*** NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

State Permits: ***CA COUNTY*** SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field.
SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: ***US DOJ*** NATIONAL CLANDESTINE LABORATORY REGISTER - Database of addresses

of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

State Other: ***CA EPA/COUNTY*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log.
ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency.
RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which generate hazardous waste.
SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials.
SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

FI Map Coverage: ***PROPRIETARY*** FIRE INSURANCE MAP AVAILABILITY - Database of historical fire insurance map availability.

APPENDIX F
REFERENCES

APPENDIX F

REFERENCES

Allen, 2009. Personal communication between Dennis Allen, Building Complex Manager II, Facilities Services Bureau, County of Los Angeles Sheriff's Department, Mira Loma Detention Center, and Elvira Gaddi, Parsons, on December 22, 2009.

Banks Environmental Data, 2009. Environmental Chain of Title. 5816 West Avenue I, Lancaster, CA 93536. December 17, 2009.

California Department of Conservation, 2009a. Division of Oil, Gas and Geothermal Resources. District 2 maps. Available at http://www.consrv.ca.gov/dog/maps/Pages/d2_index_map1.aspx Downloaded on December 30, 2009.

California Department of Conservation, 2009b. Division of Land Resource Protection. Farmland Mapping and Monitoring Program. http://www.conservation.ca.gov/dlrp/FMMP/Pages/Index.aspx Downloaded on December 30, 2009.

California State Military Department, 2009. *The California State Military Museum. Historic California Post. War Eagle Field.* Available at http://www.militarymuseum.org/WarEagleField.html Downloaded on December 31, 2009.

City of Lancaster, 2007. *Draft Master Environmental Assessment for the City of Lancaster 2030 General Plan*. Available at http://www.lancaster2030.info/archive.asp#general (accessed on December 28, 2009).

City of Lancaster, 1983. *Lancaster Celebrates a Century 1884 - 1984. A Pictorial History of Lancaster, California.* Compiled by the Centennial Committee of the City of Lancaster and Published by the City of Lancaster. 1st Edition. Published in 1983.

County of Los Angeles, 2009. *Parcel Map for APN 3203-014-901, Lancaster, California*. County of Los Angeles Office of the Assessor. Available at http://maps.assessor.lacounty.gov/mapping/viewer.asp (accessed on December 11, 2009).

Envirostor, 2010. Data from the California Department of Toxic Substances Control available at http://www.envirostor.dtsc.ca.gov/public/ (accessed on January 5, 2010).

Gardiner, 2002. *An Illustrated History of the Antelope Valley.* Allen Gardiner (Author and Photo Editor). Published by Heritage Media Corp, Carslbad, California. ISBN: 1-886483-74-4. First Edition.

Geotracker, 2010. Data from the State Water Resources Control Board. Available at http://www.geotracker.swrcb.ca.gov/ (accessed on January 19, 2010).

Higgins, 2009. Personal communication between Tom Higgins, Acting Supervisor, High Desert Hospital, and Elvira Gaddi, Parsons, on December 22, 2009.

LASD, 2009. Los Angeles Sheriff's Department (LASD) Mira Loma History from LASD intranet. Information provided by Dennis Allen, Building Complex Manager II, Facilities Service Bureau on December 22, 2009.

Stark, Milt, William H. De Witt and Walt Primmer (eds.), 1990. *Antelope Valley History. Incredible Tales, Stories, Letters, and Reminiscences of some of the South Antelope Valley Pioneers.* Journal of the West Antelope Valley Historical Society. Leona Valley, California. Vol. 3 No. 1. 1990.

TIS, 2009a. Environmental FirstSearch™ Report (Radius Report). Target Property: Mira Loma Detention Center, 5816 West Avenue I, Lancaster, CA 93536. Job Number 442230. Prepared for Parsons. December 8, 2009.

TIS, 2009b. Environmental FirstSearch™ Report (NEPA Preliminary Report). Target Property: Mira Loma Detention Center, 5816 West Avenue I, Lancaster, CA 93536. Job Number 442230. Prepared for Parsons. December 8, 2009.

TIS, 2009c. Track Info Services City Directory Report. Target Address: 5816 West Avenue I, Lancaster, CA 93536. December 14, 2009.

USACE, 1998. *Categorical Exclusion and Ineligible Findings Form. Defense Environmental Restoration Program. Formerly Used Defense Sites.* Site No. J09CA716600. Polaris Flight Academy (composed of War Eagle Field, Liberty Field and Victory Field). Signed by Jeffry b. Armentrout, Technical Manager. 26 February 1998.

USEPA, 2009. U.S. Environmental Protection Agency (USEPA) Map of Radon Zones. http://www.epa.gov/radon/zonemap/california.htm

USGS, 2003. U.S. Geological Survey (USGS) Water-Resources Investigations Report 03-4061. *Analysis of Tests of Subsurface Injection, Storage, and Recovery of Freshwater in Lancaster, Antelope Valley, California.* Available at http://pubs.er.usgs.gov/usgspubs/wri/wri034061 (accessed on December 31, 2009).

APPENDIX G
VISUAL SITE INSPECTION FORMS

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
Mira Loma Detention Facility Solar Plant (Lancaster, CA)
VISUAL SITE INSPECTION (VSI) CHECKLIST

Site:	Proposed Location of Mira Loma Detention Facility Solar Plant
Date of VSI:	22 December 2009
Persons Performing VSI:	Elvira Gaddi / Rosemarie Crisologo

A. Describe the property (describe general condition, note building numbers, etc.)

Property is vacant and covered with sandy soil & typical desert vegetation

B. Any overhead power lines on the site.

No overhead power lines on site but on adjoining properties

C. Any presence of stressed vegetation within a reasonable distance of a building or in the general area of buildings? Note location and possible source of stressed vegetation.

No buildings on site. Vegetation does not appear stressed. Some dead Joshua trees observed at southern portion of property.

Any presence of protected vegetation? None recognized

D. Any stains on the facility structure, ground or pavement? Note location and possible source of staining.

No staining observed.

E. Any unusual odors? Note location and possible source of odor(s).

No unusual odors observed.

F. Any improper storage or use of petroleum products, chemicals or wastes?

Prior storage or use of petroleum products and chemicals not observed on site.

G. Presence of indiscriminate solid waste dumping on property? Note type and location of solid waste.

No indiscriminate solid waste dumping observed on site. Only occasional windblown trash observed on site

H. Note the presence or potential presence of:

Medical/biohazardous waste

None observed

Radioactive waste (labeled "radioactive")

None observed

PCB-containing equipment (transformers)

None observed

Unexploded ordnance

None observed

I. **Buildings: List building number and inspect exterior of buildings. Note the following: peeling paint, potential asbestos containing materials, presence of hazardous material, presence of hazardous wastes.**

No buildings on site

J. **Describe the nature and location of any observed interior construction materials on the property that, based upon U.S. Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) guidance documents, may be friable presumed asbestos-containing materials (ACM).**

None observed

K. **Note any structures attached to or located near the building that does or may have housed the following:**

Storage tank (UST or AST). Note possible contents, size, and condition, look for UST vent pipes or fill ports.

No USTs observed

Describe or list each identified large aboveground storage tank (AST) or underground storage tank (UST) that is on the property (except water tanks), and identify observed exterior tanks on adjacent parcels that may present a significant environmental risk if a release were to occur.

Not applicable

Septic Tank

- Not applicable

Equipment Maintenance Site (Describe equipment and contents)

- Not applicable

Oil/Water Separator (Note if operating, overflowing, plugged, condition)

- Not applicable

L. Any indications that the facility or general area may be of historical or cultural importance.

Part of the site may have been part of the War Eagle airfield, later renamed Mira Loma Airfield

M. Potential habitat for threatened or endangered species.

No

N. Evidence of unusual geologic or floodplain conditions? Presence of wetlands?

None

O. Area with potential mineral resource value?

No

P. Any potential seen for soil, groundwater, surface water, sediment or soil vapor contamination based on a release of hazardous substances?

No

Q. Identify hazardous substances used (i.e., raw materials, operating supplies, oil-containing equipment), generated, and/or released (i.e., air emissions, waste water discharges) on the property in significant quantities.

None identified

R. Any other indications of potential presence of hazardous substances of regulatory concern

No

S. Filled areas? No

T. Identify the suppliers of water, fuels, electricity, and sewerage disposal, and any on-site source of water or waste disposal.

Water - from wells on adjacent facility
Electricity - from SCE substation on adjacent property

U. Describe any other unusual conditions.

Evidence of asphaltic concrete under soil from previous airfield operations

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
Mira Loma Detention Facility Solar Plant (Lancaster, CA)
VISUAL SITE INSPECTION (VSI) CHECKLIST

Site:	Vacant Property East of Mira Loma Detention Fac.
Date of VSI:	December 22, 2009
Persons Performing VSI:	Rosemarie Crisologo

A. Describe the property (describe general condition, note building numbers, etc.)

Subject property is undeveloped/unoccupied and characterized by unpaved access roads and some disposed/stored construction materials. Generally shows signs of human disturbance. No buildings are present on subject property. Structures observed on the subject property: former truck loading ramp, metal posts, double (sitting) bench, discarded construction materials and wheeled trailer, trash dumpster yard and drainage swale.

B. Any overhead power lines on the site.

No overhead power lines on subject property.

C. Any presence of stressed vegetation within a reasonable distance of a building or in the general area of buildings? Note location and possible source of stressed vegetation.

No stressed vegetation observed on subject property (Desert scrub vegetation disturbed by former airfield and vehicle access roads)

Any presence of protected vegetation?

No protected vegetation observed on subject property.

D. Any stains on the facility structure, ground or pavement? Note location and possible source of staining.

No stains observed on subject property.

E. Any unusual odors? Note location and possible source of odor(s).

No odors detected on subject property.

F. Any improper storage or use of petroleum products, chemicals or wastes?

No improper storage or use on subject property.

G. Presence of indiscriminate solid waste dumping on property? Note type and location of solid waste.

Limited disposal of construction materials on subject property. Solid waste observed consisted of glass, cans, food wrappers and other wind-blown trash. Several large, decaying tree trunks observed.

H. Note the presence or potential presence of:

Medical/biohazardous waste

None

Radioactive waste (labeled "radioactive")

None

PCB-containing equipment (transformers)

None

Unexploded ordnance

None

I. Buildings: List building number and inspect exterior of buildings. Note the following: peeling paint, potential asbestos containing materials, presence of hazardous material, presence of hazardous wastes.

No buildings on subject property. Adjoining properties at MLDF and High Desert Hospital may contain LBP + ACM in older bldgs.

J. Describe the nature and location of any observed interior construction materials on the property that, based upon U.S. Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) guidance documents, may be friable presumed asbestos-containing materials (ACM).

Interiors of older bldgs on adjoining properties were not inspected.

K. Note any structures attached to or located near the building that does or may have housed the following:

Storage tank (UST or AST). Note possible contents, size, and condition, look for UST vent pipes or fill ports.

No storage tanks on subject property.

Describe or list each identified large aboveground storage tank (AST) or underground storage tank (UST) that is on the property (except water tanks), and identify observed exterior tanks on adjacent parcels that may present a significant environmental risk if a release were to occur.

Adjacent Parcels: unleaded & diesel USTs at MLDF gas station
diesel UST for emergency generator at MLDF
4,300 gal diesel UST @ High Desert Hospital for emergency generator
AST at MLDF helipad

Septic Tank

- None

Equipment Maintenance Site (Describe equipment and contents)

- Vehicle maint. conducted off-site for MLDF
- High Desert Hosp. - maintenance limited to use of 16 oz. degreasers in cans

Oil/Water Separator (Note if operating, overflowing, plugged, condition)

- None

L. Any indications that the facility or general area may be of historical or cultural importance.

Deteriorating asphalt paving found consistently throughout the subject property may indicate remnants of former airfield (War Eagle Field) used in early 1940s.

M. Potential habitat for threatened or endangered species.

Subject property is developed/ruderal vegetation but there are records of four sensitive species in the immediate area (none of these species are listed as threatened or endangered under FESA or CESA).

N. Evidence of unusual geologic or floodplain conditions? Presence of wetlands?

No flooding evident; drainage channel (natural bottom) traverses subject property

O. Area with potential mineral resource value?

(Subject property designated as MRZ per Lancaster 2020 General Plan MEA)

P. Any potential seen for soil, groundwater, surface water, sediment or soil vapor contamination based on a release of hazardous substances?

Potential unknown; prior release of hazardous substances not known on subject property.

Q. Identify hazardous substances used (i.e., raw materials, operating supplies, oil-containing equipment), generated, and/or released (i.e., air emissions, waste water discharges) on the property in significant quantities.

No hazardous substances known to have been released onto the subject property in significant quantities.

R. Any other indications of potential presence of hazardous substances of regulatory concern?

None on subject property.

S. Filled areas?

Possible isolated areas of fill.

T. Identify the suppliers of water, fuels, electricity, and sewerage disposal, and any on-site source of water or waste disposal.

Water - groundwater; chlorination system along 60th St W
Fuel - local suppliers
Electricity - So Cal Edison
Sewer - LA County Sanitation District

U. Describe any other unusual conditions.

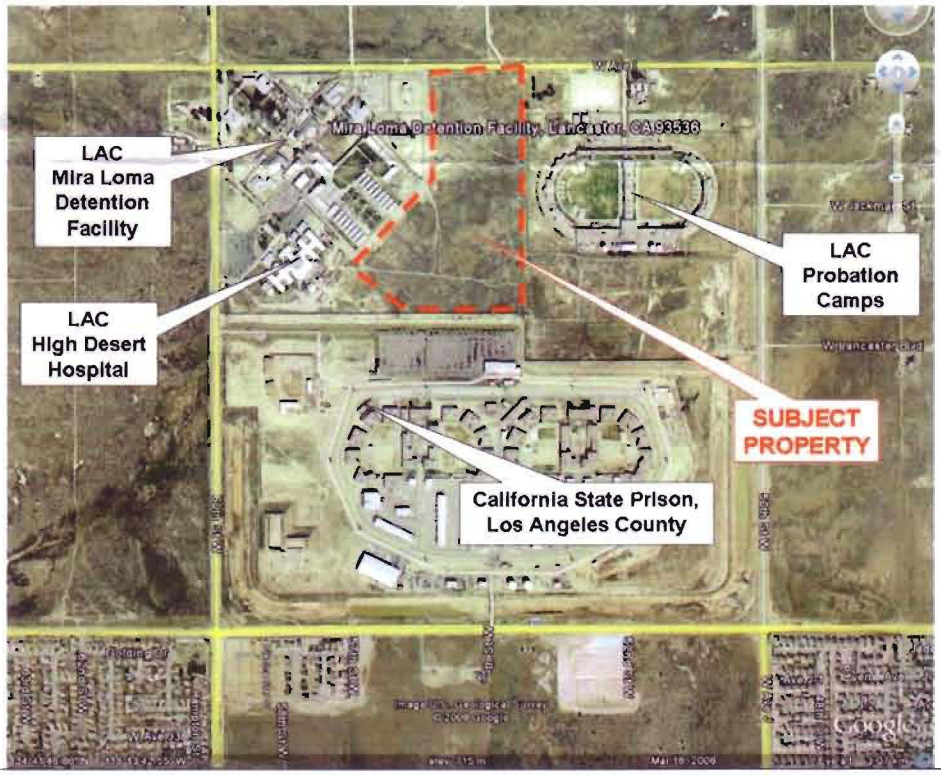
Broken asphalt/rock pavement pieces found on ground surface throughout most of the subject property.

APPENDIX H
INTERVIEW QUESTIONNAIRES

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
INTERVIEW QUESTIONNAIRE

Name of Interviewee: Milt Stark	Organization/Affiliation: West Antelope Valley Historical Society

Property Address: **Undeveloped Land south of 5816 West Avenue I, Lancaster, CA 93536 APN No. 3203-014-901**



Position or Responsibility:		
Tel. No.: (661) 945-5369	Fax No.:	E-Mail: oms61121@verizon.net
Interview conducted by: Rosemarie Crisologo	Date of Interview:	

	QUESTION	YES	NO
1.	Is any adjoining property used for industrial purposes? Specify:		X
2.	Did you observe evidence or do you have prior knowledge that the property has been used for industrial purposes in the past? Specify:		X

	QUESTION	YES	NO
3.	Did you observe evidence or do you have prior knowledge that adjoining properties have been used for industrial purposes in the past? Specify:		X
4.	Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? AIR FIELD + STATE HAD GASOLINE, OIL Identify which one: CLEANING MATERIALS	X	
5.	Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? I REMEMBER A SEWAGE TREATMENT PLANT NEAR AVE I BUT I DO NOT KNOW Identify which one: ~~OR~~ WHICH PROPERTY IT WAS ON.	X	
6.	Did you observe evidence or do you have any prior knowledge that adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? AIR FIELD AND STATE HAD GASOLINE PUMPS + Identify which one: STATE DID PHOTO DEVELOPING	X	
7.	Are any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than 5 gallons in volume or 50 gallons in the aggregate currently stored on or used at the property or at the facility?		X
8.	Did you observe evidence or do you have any prior knowledge that any damaged or discarded automotive or industrial batteries, pesticides, paints or other chemicals in individual containers of greater than 5 gallons in volume or 50 gallons in the aggregate have previously been stored on or used at the property or at the facility?		X
9.	Are any industrial drums (typically 55 gallons) or sacks of chemicals currently located on the property or at the facility?		UNKNOWN
10.	Did you observe evidence or do you have knowledge that any industrial drums (typically 55 gallons) or sacks of chemicals currently located on the property or at the facility?		X
11.	Did you observe evidence or do you have knowledge that fill dirt that originated from a contaminated site has been brought onto the property?		X
12.	Did you observe evidence or do you have knowledge that fill dirt that originated from a contaminated site has been brought onto the property?		X

	QUESTION	YES	NO
13.	Did you observe evidence or do you have knowledge that fill dirt that is of an unknown origin has been brought onto the property?		X
14.	Did you observe evidence or do you have knowledge that any pits, ponds, or lagoons in connection with waste treatment or waste disposal have previously been located on the property?	SEE #3	
15.	Did you observe evidence or do you have knowledge that any stained soil has previously been on the property?		X
16.	Are any registered or unregistered storage tanks (aboveground or underground) currently located on the property?		UNK.
17.	Did you observe evidence or do you have knowledge that any registered or unregistered storage tanks (aboveground or underground) have been previously located on the property?		X
18.	Are any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground currently located on the property or adjacent to any structure located on the property?		X
19.	Did you observe evidence or do you have knowledge that any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground have been previously located on the property or adjacent to any structure located on the property?		X
20.	Do you have knowledge of environmental liens or notification from government agencies relating to past or recurrent violation of environmental laws with respect to the property or any facility located on the property?		X
21.	Have you been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?		X
22.	Have you been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?		X
23.	Have you been informed of the past existence of environmental violations with respect to the property or any facility located on the property?		X
24.	Have you been informed of the current existence of environmental violations with respect to the property or any facility located on the property?		X
25.	Do you have knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?		X
26.	Do you have any knowledge of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum product involving the property?		X
27.	Does the property discharge waste water on or adjacent to the property, other than stormwater into a stormwater system?		UNK.

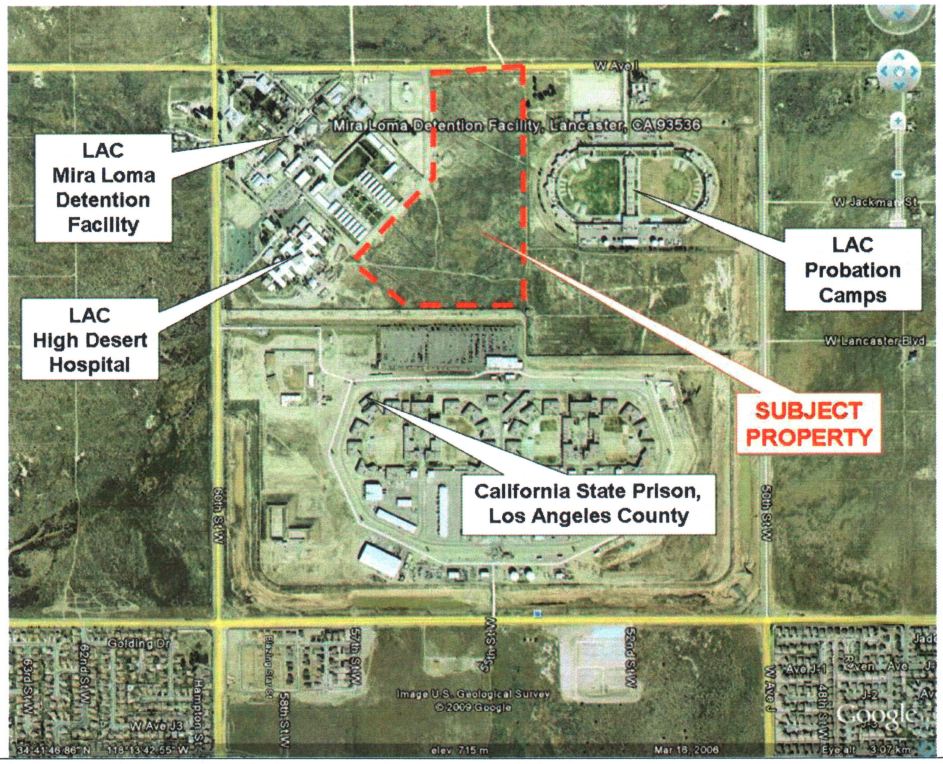
	QUESTION	YES	NO
28.	Does the property discharge waste water on or adjacent to the property, other than stormwater into a sanitary sewer system?		UNK.
29.	Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried, and/or burned on the property?		X
30.	Do any records exist indicating the presence of polychlorinated biphenyls (PCBs) for a transformer, capacitor, or any hydraulic equipment?		UNK
31.	Do you have any knowledge of any asbestos-containing materials or presumed asbestos-containing materials on any facility located on the property?		X
32.	Do you have any knowledge of any lead-based paint or presumed lead-based paint on any facility located on the property?		X

Thank you for your assistance in completing this questionnaire. Please return your completed form electronically to rosemarie.crisologo@parsons.com , or via fax to (626) 440-6200, or it may be mailed to Rosemarie Crisologo, Parsons, 100 W. Walnut St., Pasadena, CA 91124.

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
INTERVIEW QUESTIONNAIRE

Name of Interviewee: TOM HIGGINS	Organization/Affiliation: DHS HDHS L.A. COUNTY

Property Address: **Undeveloped Land south of 5816 West Avenue I, Lancaster, CA 93536 APN No. 3203-014-901**



Position or Responsibility: ELEC. SUP. (ACTING MANAGER)		
Tel. No.: 661-945-8237	Fax No.: 661-945-8561	E-Mail: T.HIGGINS@DHS.LACOUNTY.GOV
Interview conducted by:	Date of Interview:	

	QUESTION	YES	NO
1.	Is any adjoining property used for industrial purposes? Specify:		X
2.	Did you observe evidence or do you have prior knowledge that the property has been used for industrial purposes in the past? Specify:		X

	QUESTION	YES	NO
3.	Did you observe evidence or do you have prior knowledge that adjoining properties have been used for industrial purposes in the past? Specify:		X
4.	Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? Identify which one: UST - Sherrif FAC.	X	
5.	Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? Identify which one:		X
6.	Did you observe evidence or do you have any prior knowledge that adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? Identify which one:		X
7.	Are any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than 5 gallons in volume or 50 gallons in the aggregate currently stored on or used at the property or at the facility?		X
8.	Did you observe evidence or do you have any prior knowledge that any damaged or discarded automotive or industrial batteries, pesticides, paints or other chemicals in individual containers of greater than 5 gallons in volume or 50 gallons in the aggregate have previously been stored on or used at the property or at the facility?		X
9.	Are any industrial drums (typically 55 gallons) or sacks of chemicals currently located on the property or at the facility?		X
10.	Did you observe evidence or do you have knowledge that any industrial drums (typically 55 gallons) or sacks of chemicals currently located on the property or at the facility?		X
11.	Did you observe evidence or do you have knowledge that fill dirt that originated from a contaminated site has been brought onto the property?		X
12.	Did you observe evidence or do you have knowledge that fill dirt that originated from a contaminated site has been brought onto the property?		X

	QUESTION	YES	NO
13.	Did you observe evidence or do you have knowledge that fill dirt that is of an unknown origin has been brought onto the property?		X
14.	Did you observe evidence or do you have knowledge that any pits, ponds, or lagoons in connection with waste treatment or waste disposal have previously been located on the property?		X
15.	Did you observe evidence or do you have knowledge that any stained soil has previously been on the property?		X
16.	Are any registered or unregistered storage tanks (aboveground or underground) currently located on the property?	X	
17.	Did you observe evidence or do you have knowledge that any registered or unregistered storage tanks (aboveground or underground) have been previously located on the property?		X
18.	Are any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground currently located on the property or adjacent to any structure located on the property?		X
19.	Did you observe evidence or do you have knowledge that any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground have been previously located on the property or adjacent to any structure located on the property?		X
20.	Do you have knowledge of environmental liens or notification from government agencies relating to past or recurrent violation of environmental laws with respect to the property or any facility located on the property?		X
21.	Have you been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?		X
22.	Have you been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?		X
23.	Have you been informed of the past existence of environmental violations with respect to the property or any facility located on the property?		X
24.	Have you been informed of the current existence of environmental violations with respect to the property or any facility located on the property?		X
25.	Do you have knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?		X
26.	Do you have any knowledge of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum product involving the property?		X
27.	Does the property discharge waste water on or adjacent to the property, other than stormwater into a stormwater system?		X

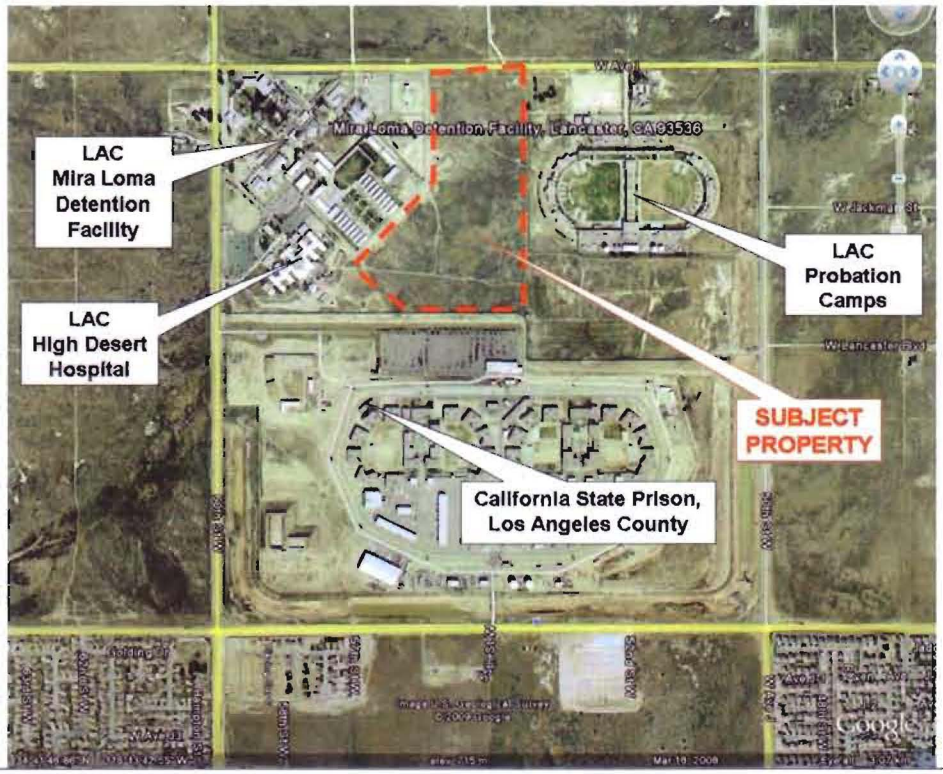
	QUESTION	YES	NO
28.	Does the property discharge waste water on or adjacent to the property, other than stormwater into a sanitary sewer system?		X
29.	Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried, and/or burned on the property?		X
30.	Do any records exist indicating the presence of polychlorinated biphenyls (PCBs) for a transformer, capacitor, or any hydraulic equipment?		X
31.	Do you have any knowledge of any asbestos-containing materials or presumed asbestos-containing materials on any facility located on the property?	X	
32.	Do you have any knowledge of any lead-based paint or presumed lead-based paint on any facility located on the property?	X	

Thank you for your assistance in completing this questionnaire. Please return your completed form electronically to rosemarie.crisologo@parsons.com , or via fax to (626) 440-6200, or it may be mailed to Rosemarie Crisologo, Parsons, 100 W. Walnut St., Pasadena, CA 91124.

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
INTERVIEW QUESTIONNAIRE

Name of Interviewee:	Organization/Affiliation:
DENNIS ALLEN	SHERIFF / FSB Complex MyIR

Property Address: **Undeveloped Land south of 5816 West Avenue I, Lancaster, CA 93536 APN No. 3203-014-901**



Position or Responsibility:

Tel. No.:	Fax No.:	E-Mail:
661-949-3810	323-415-4777	DRALLEN@LASD.ORG

Interview conducted by:	Date of Interview:

	QUESTION	YES	NO
1.	Is any adjoining property used for industrial purposes? Specify:		✓
2.	Did you observe evidence or do you have prior knowledge that the property has been used for industrial purposes in the past? Specify:		✓

	QUESTION	YES	NO
3.	Did you observe evidence or do you have prior knowledge that adjoining properties have been used for industrial purposes in the past? Specify:		✓
4.	Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? Identify which one:		✓
5.	Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? Identify which one:		✓
6.	Did you observe evidence or do you have any prior knowledge that adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill or as a waste treatment, storage, disposal, processing, or recycling facility? Identify which one:		✓
7.	Are any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than 5 gallons in volume or 50 gallons in the aggregate currently stored on or used at the property or at the facility?		✓
8.	Did you observe evidence or do you have any prior knowledge that any damaged or discarded automotive or industrial batteries, pesticides, paints or other chemicals in individual containers of greater than 5 gallons in volume or 50 gallons in the aggregate have previously been stored on or used at the property or at the facility?		✓
9.	Are any industrial drums (typically 55 gallons) or sacks of chemicals currently located on the property or at the facility?		✓
10.	Did you observe evidence or do you have knowledge that any industrial drums (typically 55 gallons) or sacks of chemicals currently located on the property or at the facility?		✓
11.	Did you observe evidence or do you have knowledge that fill dirt that originated from a contaminated site has been brought onto the property?		✓
12.	Did you observe evidence or do you have knowledge that fill dirt that originated from a contaminated site has been brought onto the property?		✓

	QUESTION	YES	NO
13.	Did you observe evidence or do you have knowledge that fill dirt that is of an unknown origin has been brought onto the property?		✓
14.	Did you observe evidence or do you have knowledge that any pits, ponds, or lagoons in connection with waste treatment or waste disposal have previously been located on the property?		✓
15.	Did you observe evidence or do you have knowledge that any stained soil has previously been on the property?		✓
16.	Are any registered or unregistered storage tanks (aboveground or underground) currently located on the property?		✓
17.	Did you observe evidence or do you have knowledge that any registered or unregistered storage tanks (aboveground or underground) have been previously located on the property?		✓
18.	Are any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground currently located on the property or adjacent to any structure located on the property?		✓
19.	Did you observe evidence or do you have knowledge that any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground have been previously located on the property or adjacent to any structure located on the property?		✓
20.	Do you have knowledge of environmental liens or notification from government agencies relating to past or recurrent violation of environmental laws with respect to the property or any facility located on the property?		✓
21.	Have you been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?		✓
22.	Have you been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?		✓
23.	Have you been informed of the past existence of environmental violations with respect to the property or any facility located on the property?		✓
24.	Have you been informed of the current existence of environmental violations with respect to the property or any facility located on the property?		✓
25.	Do you have knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?		✓
26.	Do you have any knowledge of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum product involving the property?		✓
27.	Does the property discharge waste water on or adjacent to the property, other than stormwater into a stormwater system?		✓

	QUESTION	YES	NO
28.	Does the property discharge waste water on or adjacent to the property, other than stormwater into a sanitary sewer system?		✓
29.	Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried, and/or burned on the property?		✓
30.	Do any records exist indicating the presence of polychlorinated biphenyls (PCBs) for a transformer, capacitor, or any hydraulic equipment?		✓
31.	Do you have any knowledge of any asbestos-containing materials or presumed asbestos-containing materials on any facility located on the property?		✓
32.	Do you have any knowledge of any lead-based paint or presumed lead-based paint on any facility located on the property?		✓

Thank you for your assistance in completing this questionnaire. Please return your completed form electronically to rosemarie.crisologo@parsons.com , or via fax to (626) 440-6200, or it may be mailed to Rosemarie Crisologo, Parsons, 100 W. Walnut St., Pasadena, CA 91124.

APPENDIX I
CHAIN OF TITLE REPORT

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

Environmental Chain of Title

December 17, 2009

CLIENT

Parsons
Attn: R. Crisologo
100 W Walnut St.
Pasadena, CA 91124

SITE

5816 West Avenue I
Los Angeles, CA 93536
Los Angeles County

Project #: ES60324

Banks Environmental Data, Inc.
P.O. Box 12851, Capitol Station/Austin, Texas 78711
1601 Rio Grande, suite 500/Austin, TX 78703 512-478-0059 FAX 512-478-1433
E-Mail - CustomerService@banksinfo.com www.banksinfo.com

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

HISTORICAL OWNERSHIP REPORT

PROPERTY DESCRIPTION

LEGAL DESCRIPTION: That portion of Section 14, Township 7 North, Range 13 West, in the County of Los Angeles, State of California, described in Exhibit A-6, attached to Quitclaim Deed recorded August 1, 2007, as Document No. 20071824220, and identified on the Map of the Tax Assessor of said County as Parcel No. 3203-014-901.

SUBJECT PARCEL NUMBER: 3203-014-901

TITLE TABLE

DATE	DOCUMENT TYPE	GRANTOR (Seller/Lessor)	GRANTEE (Buyer/Lessee)	PARCEL or LOT #	BOOK/PAGE REFERENCE:
08/01/2007	Quitclaim Deed	Los Angeles County Public Works Financing Authority	County of Los Angeles	3203-014-901	Document No. 20071824220
11/04/1997	Quitclaim Deed	Los Angeles County Courthouse Corporation	County of Los Angeles	3203-014-901	Document No. 97-1757051
11/04/1997	Quitclaim Deed	Los Angeles County Capital Asset Leasing Corporation	County of Los Angeles	3203-014-901	Document No. 97-1757049
07/26/1994	Final Order of Condemnation	The State of California	County of Los Angeles	3203-014-901	Document No. 94-1386137
10/18/1948	Grant Deed	Reconstruction Finance Corporation and USA	The State of California	3203-014-901	Document No. 2604

HISTORICAL OWNERSHIP REPORT

TITLE RESEARCH NOTES

Notes:

ASTM Notes: ASTM E 1527-05, on Historical Use Information requires a review of *"Reasonably Ascertainable standard historical sources."*

"Reasonably Ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable."

This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.

Banks Environmental Data, Inc. has determined that the ASTM E 1527-05, Section 8.3.4.4 requirements (as it pertains to methods and locations of research) have been met for the subject property searched in this report.

Environmental Liens: No environmental liens or activity/use limitations (AUL's) identified.

RESOURCES & LIMITATIONS

Banks Environmental Data, Inc. (Banks) has completed your request for an Environmental Chain of Title search for the above site. The information in this report has been produced from a limited search of the public land records and/or real property deed records of the county and state for a 60 year period up through the indicated date as shown on this report. This limited search includes only the recorded deeds and most easements and surface leases affecting the ownership history of the subject property. This report is being provided for use only as a limited part of an overall Phase I Environmental Site Assessment as performed by a qualified Environmental Engineer/Consultant as specified in the ASTM Standard E 1527-05 and as specified in the Comprehensive Environmental Response, Compensation and Liabilities Act of 1980, as amended, and may not be relied upon for any other purpose.

This report is not to be considered an Abstract, a Title Commitment, Title Opinion, Title Guaranty, or a representation of the legal status of the property. The information presented is simply a report of instruments filed of record pertaining to the above property and was obtained from the county public records. No guaranty as to the integrity or correctness of said records is implied.

HISTORICAL OWNERSHIP REPORT

GLOSSARY

There are certain terms used in Chain of Title searches, which may require clarification. This glossary is designed to provide definitions for some of the most common terms.

1. ENVIRONMENTAL LIEN:	The Environmental Lien is a record of a document/instrument filed by the City, County, State or Federal Government that prevents the conveyance of a property because of severe environmental problems existing on the premises.
2. BREAK IN CHAIN:	There may appear to be a break in the chain of title as indicated when the sequential tracing of ownership fails. An example of a break would be: *Smith to Jones. . .Jones to Wilson. . .White to Black*. The missing link is from Wilson to White. There are several possible reasons for this occurrence. • Due to the size or other physical characteristics of the property, there could be multiple owners at any time when tracing the history of the ownership of the property. • There could be an "easement title" over some portion of the property, allowing for use of that portion for a specific purpose. • There could be a "multi-percentage interest" in the property, with concurrent multiple owners making up 100% of the fee title. Then, a percentage owner deeds out his particular interest or a percentage of this interest to one or more parties. This causes a perceived break in the chain.
3. EASEMENT:	An easement is the right to enter and use another person's property: a non-possessor right to use another person's real property. Traditionally easements are granted to utility companies and other service organizations or as a right of access to another property.
4. MULTIPLE OWNERS:	When "others" or "et al" appears on the report in the owner category, it indicates multiple ownership of a single parcel, with too many names to record in summary. It is frequently used to denote more than a single owner. If the owners are a married couple, both names may appear on the report or may be denoted by "et ux". The term "owners' is usually used to indicate owners of multiple parcels, all recorded under a document that covers the multiple parcels.
5. MULTIPLE PARCELS:	Some properties are created by combining several adjoining parcels into one large parcel. When this occurs; there might be several different owners until the time of unification of the property. Sometimes the ownership appears to be cloudy until each owner conveys his/her interest to the single owner of the new larger parcel.

DISCLAIMER
The information contained in this report has been obtained from publicly available sources and other secondary sources of information produced by entities other than Banks Environmental Data, Inc (Banks). Although great care has been taken by Banks in compiling and checking the information contained in this report to insure that it is current and accurate, Banks disclaims any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence or otherwise, and for any consequences arising there from. The data provided hereunder neither purports to be nor constitutes legal or medical advice. It is further understood that Banks makes no representations or warranties of any kind. Including, but not limited to, the warranties of fitness for a particular purpose of merchantability, nor any such representations or warranties to be implied with respect to the data furnished, and banks assumes no responsibility with respect to our customer's, its employees', clients', or customers' use thereof. Banks shall not be liable for any special, consequential, or exemplary damages resulting in whole or in part, from customer's use of the data. Liability on the part of Banks is limited to the monetary value paid for this report. The report is valid only for the geographical parameters specified on the cover page of this report, and any alteration or deviation from this description will require a new report. This report does not constitute a legal or licensed opinion.

This page is part of your document - DO NOT DISCARD

20071824220

Pages: 030

Recorded/Filed in Official Records
Recorder's Office, Los Angeles County, California

08/01/07 AT 04:32PM

Fee: 0.00
Tax: 0.00
Other: 0.00
Total: 0.00

999378 200708010020074 Counter

TITLE(S) : DEED

LEAD SHEET

Assessor's Identification Number (AIN)
To be completed by Examiner OR Title Company in black ink. Number of AIN's Shown

THIS FORM IS NOT TO BE DUPLICATED

Description: Los Angeles,CA Document-Year.DocID 2007.1824220 Page: 1 of 30
Order: 0 Comment:

08/01/07

20071824220

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

Harriet M. Welch, Esq.
Squire, Sanders & Dempsey LLP
555 S. Flower St., 31st Fl.
Los Angeles, California 90071-2300

(Space Above This Line For Recorders Use Only)

QUITCLAIM DEED

The undersigned declares that no documentary transfer tax is payable. This Quitclaim Deed is exempt pursuant to Section 4.60.050 of the Los Angeles County Code, adopted pursuant to Part 6.7 (commencing with Section 11901) of Division 2 of the California Revenue and Taxation Code. A portion of the real property is located in the Cities of Downey, Lancaster, Long Beach, Los Angeles, Norwalk, Pomona and Temple City, Los Angeles County.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, the LOS ANGELES COUNTY PUBLIC WORKS FINANCING AUTHORITY, a California nonprofit public benefit corporation (the "Authority"), does hereby remise, release and forever quitclaim to the COUNTY OF LOS ANGELES, a political subdivision of the State of California (the "County"), all of its right, title and interest in and to that certain real property located in the Cities of Downey, Lancaster, Long Beach, Los Angeles, Norwalk, Pomona and Temple City, County of Los Angeles, State of California, all as more particularly described at Exhibit "A" attached hereto, pursuant to the terms of that certain Sublease and Option to Purchase, dated as of November 1, 1997, between the County and the Authority, as amended by that certain Amendment Number One to Sublease and Option to Purchase, each pertaining to the Authority's Lease Revenue Refunding Bonds (1997 Master Refunding Project) Series A.

Dated: JUL 19 2007

LOS ANGELES COUNTY PUBLIC
WORKS FINANCING AUTHORITY

By: _____
Name: ZEV YAROSLAVSKY
Title: CHAIRMAN,

Attest:

By: _____
Deputy

STATE OF CALIFORNIA)
) ss.
COUNTY OF Los Angeles)

On July 19, 2007, before me, Angie Montes, Notary Public, personally appeared Adela Guzman personally known to me ~~(or proved to me on the basis of satisfactory evidence)~~ to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

WITNESS my hand and official seal.

ANGIE MONTES
Commission # 1811141
Notary Public - California
Los Angeles County
My Comm. Expires Sep 2, 2008

Angie Montes
Notary's Signature

4

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by the within deed or grant to the County of Los Angeles, a political subdivision of the State of California, is hereby accepted under the authority of the Resolution of the Board of Supervisors of said County adopted on November 14, 2006, and the grantee consents to the recordation of said deed or grant by its duly authorized officer.

Dated: JUL 19 2007

COUNTY OF LOS ANGELES

By: Zev Yaroslavsky

Name: ZEV YAROSLAVSKY
Title: CHAIRMAN, BOARD OF SUPERVISORS

[SEAL]

Attest:

By: Deputy

Description: Los Angeles,CA Document-Year.DocID 2007.1824220 Page: 4 of 30
Order: 0 Comment:

Exhibit A To Quitclaim Deed

LEGAL DESCRIPTION OF PROPERTY

Table of Contents

Exhibit A-1: Pitchess Honor Rancho Laundry Expansion Site
Exhibit A-2: Pitchess Honor Rancho Visitor's Center
Exhibit A-3: Temple City Sheriff's Station
Exhibit A-4: Pomona Municipal Courthouse
Exhibit A-5: LAC/USC Medical Center
Exhibit A-6: Mira Loma Facility
Exhibit A-7: County Recorder's Building
Exhibit A-8: Pitchess Honor Rancho Medium Security-North Facility
Exhibit A-9: Vehicle Maintenance Facility
Exhibit A-10: Men's Central Jail Expansion Parking Structure
Exhibit A-11: Van Nuys Courthouse
Exhibit A-12: Hollywood Courthouse
Exhibit A-13: Long Beach Health Center
Exhibit A-14: Library Facility

Description: Los Angeles,CA Document-Year.DocID 2007.1824220 Page: 5 of 30
Order: 0 Comment:

11

EXHIBIT A-6
LEGAL DESCRIPTION OF MIRA LOMA FACILITY

MIRA LOMA FACILITY:

SECTION 14, TOWNSHIP 7 NORTH, RANGE 13, WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE CITY OF LANCASTER, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPT THE INTEREST IN THE NORTHERLY 30 FEET OF THE WEST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 14, WHICH WAS CONVEYED TO THE COUNTY OF LOS ANGELES, FOR PUBLIC ROAD AND HIGHWAY PURPOSES, BY DEED RECORDED FEBRUARY 15, 1922 IN BOOK 898 PAGE 160, OFFICIAL RECORDS.

ALSO EXCEPT THE NORTH 25 FEET OF THE NORTHEAST QUARTER OF SAID SECTION 14, CONVEYED TO THE COUNTY OF LOS ANGELES, BY DEED RECORDED MARCH 23, 1901 IN BOOK 1447 PAGE 31 OF DEEDS.

ALSO EXCEPT THE INTEREST IN TTHE SOUTHERLY 5 FEET OF THE NORTHERLY 30 FEET OF THE WEST HALF OF THE NORTHEAST QUARTER OF SAID SECTION 14, WHICH WAS CONVEYED TO THE COUNTY OF LOS ANGELES, FOR PUBLIC ROAD AND HIGHWAY PURPOSES, BY DEED RECORDED JANUARY 9, 1922 IN BOOK 731 PAGE 252, OFFICIAL RECORDS.

ALSO EXCEPT THE INTEREST IN THE SOUTHERLY 5 FEET OF THE NORTHERLY 30 FEET OF THE EAST HALF OF THE NORTHEAST QUARTER OF SAID SECTION 14, WHICH WAS CONVEYED TO THE COUNTY OF LOS ANGELES, FOR PUBLIC ROAD AND HIGHWAY PURPOSES, BY DEED RECORDED FEBRUARY 15, 1922 IN BOOK 901 PAGE 97, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM ALL URANIUM, THORIUM AND OTHER MINERALS, AS EXCEPTED BY RECONSTRUCTION FINANCE CORPORATION AND UNITED STATES OF AMERICA, ACTING BY AND THRU WAR ASSETS ADMINISTRATION, RECORDED OCTOBER 18, 1948 AS INSTRUMENT NOS. 2604 AND 2606.

ALSO EXCEPT THAT PORTION OF SECTION 14, TOWNSHIP 7 NORTH, RANGE 13 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF THE NORTHERLY 50 FEET OF SAID SECTION, WITH THE WESTERLY LINE OF THE EASTERLY 1300 FEET OF SAID SECTION; THENCE SOUTHERLY ALONG SAID WESTERLY LINE, 380.00 FEET TO THE SOUTHERLY LINE OF THE NORTHERLY 430 FEET OF SECTION; THENCE EASTERLY ALONG SAID LAST MENTIONED SOUTHERLY LINE, 879.00 FEET TO THE WESTERLY LINE OF THE EASTERLY 403 FEET OF SAID SECTION; THENCE SOUTHERLY ALONG SAID LAST MENTIONED WESTERLY LINE, 2283.00 FEET TO THE SOUTHERLY LINE OF THE NORTHERLY 2713 FEET OF SAID SECTION; THENCE WESTERLY ALONG SAID LAST MENTIONED SOUTHERLY LINE, 1770.00 FEET TO THE WESTERLY LINE OF THE EASTERLY 2173 FEET OF SAID SECTION; THENCE NORTHERLY ALONG SAID LAST MENTIONED WESTERLY LINE, 2663.00 FEET TO SAID FIRST MENTIONED SOUTHERLY

Description: Los Angeles,CA Document-Year.DocID 2007.1824220 Page: 11 of 30
Order: 0 Comment:

LINE; THENCE EASTERLY ALONG SAID FIRST MENTIONED SOUTHERLY LINE, 873.00 FEET TO THE POINT OF BEGINNING.

EXCEPT THEREFROM ALL URANIUM, THORIUM AND OTHER MINERALS, AS EXCEPTED BY RECONSTRUCTION FINANCE CORPORATION AND UNITED STATES OF AMERICA, ACTING BY AND THRU WAR ASSETS ADMINISTRATION, RECORDED OCTOBER 18, 1948 AS INSTRUMENT NOS. 2604 AND 2606.

Description: Los Angeles,CA Document-Year.DocID 2007.1824220 Page: 12 of 30
Order: 0 Comment:

97 1757051

RECORDED/FILED IN OFFICIAL RECORDS
RECORDER'S OFFICE
LOS ANGELES COUNTY
CALIFORNIA
4:01 PM NOV 04 1997

RECORDING REQUESTED BY

WHEN RECORDED MAIL TO

NAME: County of Los Angeles Treasurer and Tax Collector
MAILING ADDRESS: 500 W Temple St Rm 437
CITY, STATE ZIP CODE: Los Angeles CA 90012

ATTN: Public Finance

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

TITLE(S)

FREE G

Quitclaim DEED

Description: Los Angeles,CA Document-Year.DocID 1997.1757051 Page: 1 of 6
Order: 00 Comment:

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

County of Los Angeles
Hall of Administration
500 West Temple Street
Room 432
Los Angeles, California 90012
Attention: Treasurer and Tax Collector

This space for Recorder's use

QUITCLAIM DEED

GRANTOR

The undersigned declares that no documentary transfer tax is payable. This Quitclaim Deed is exempt pursuant to Section 4.60.050 of the Los Angeles County Code, adopted pursuant to Part 6.7 (commencing with Section 11901) of Division 2 of the California Revenue and Taxation Code. The real property is located in the City of Los Angeles.

APN's: 3203-014-901

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, the LOS ANGELES COUNTY COURTHOUSE CORPORATION, a California nonprofit public benefit corporation, does hereby remise, release and forever quitclaim to the COUNTY OF LOS ANGELES, a political subdivision of the State of California, all of its right, title and interest in and to that certain real property located in the City of Los Angeles, County of Los Angeles, State of California, as more particularly described at Exhibit "A" attached hereto.

Dated: November 4, 1997.

LOS ANGELES COUNTY COURTHOUSE CORPORATION, a California nonprofit public benefit corporation

By: Zelda Ann Marzec
Name: Zelda Ann Marzec
Title: President

ATTEST:

By: [signature]
Assistant Secretary

97 1757051

G 7135584-4

Description: Los Angeles,CA Document-Year.DocID 1997.1757051 Page: 2 of 6
Order: 00 Comment:

State of California)
County of Los Angeles)

On OCTOBER 24, 1997, before me, the undersigned, personally appeared [redacted] and KAREN NGUYEN, personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature(s) on the instrument the person or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature [redacted] (Seal)



97 1757051

[redacted]

EXHIBIT "A"

LEGAL DESCRIPTION OF REAL PROPERTY

97 1757051

EXHIBIT "A"

Description: Los Angeles,CA Document-Year.DocID 1997.1757051 Page: 4 of 6
Order: 00 Comment:

Order No: 7135574 -X52

1

DESCRIPTION

Van Nuys Courthouse

THAT PORTION OF BLOCK 31 OF TRACT NO. 1200, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 19 PAGE 35 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE NORTHWESTERLY CORNER OF LOT 21, SAID BLOCK; THENCE EASTERLY ALONG THE NORTHERLY LINES OF LOTS 21 TO 28 INCLUSIVE OF SAID BLOCK, TO THE NORTHEASTERLY CORNER OF SAID LOT 28; THENCE SOUTHERLY ALONG THE EASTERLY LINE OF SAID LAST MENTIONED LOT TO THE SOUTHEASTERLY CORNER OF SAID LAST MENTIONED LOT; THENCE SOUTHERLY IN A DIRECT LINE TO THE NORTHEASTERLY CORNER OF LOT 29, SAID BLOCK; THENCE SOUTHERLY ALONG THE EASTERLY LINE OF SAID LAST MENTIONED LOT TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 15 FEET, TANGENT TO SAID LAST MENTIONED EASTERLY LINE AND TANGENT TO THE NORTHERLY LINE OF THE SOUTHERLY 2 FEET OF SAID LAST MENTIONED LOT; THENCE SOUTHWESTERLY ALONG SAID CURVE TO SAID LAST MENTIONED NORTHERLY LINE; THENCE WESTERLY ALONG SAID LAST MENTIONED NORTHERLY LINE AND ITS WESTERLY PROLONGATION TO THE WESTERLY LINE OF LOT 32, SAID BLOCK; THENCE NORTHERLY ALONG SAID WESTERLY LINE TO THE NORTHWESTERLY CORNER OF SAID LAST MENTIONED LOT; THENCE NORTHERLY IN A DIRECT LINE TO THE SOUTHWESTERLY CORNER OF SAID LOT 21; THENCE NORTHERLY ALONG THE WESTERLY LINE OF SAID LAST MENTIONED LOT TO THE POINT OF BEGINNING.

97 1757051

[illegible]

Order No: 1355771 -X52

DESCRIPTION

Hollywood Courthouse

PARCEL 1:

THE WESTERLY HALF OF LOT 6, OF THE BROKAW TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 1, PAGE 39 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM THE EASTERLY 69.50 FEET OF THE SOUTHERLY 81.00 FEET.

PARCEL 2:

THAT PORTION OF LOT 5 OF BROKAW TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 1, PAGE 39 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER OF THE WESTERLY 139.5 FEET OF LOT 6, OF SAID BROKAW TRACT; THENCE WESTERLY ALONG THE NORTHERLY LINE OF SAID LOT 6, A DISTANCE OF 139.5 FEET TO THE NORTHWESTERLY CORNER THEREOF; THENCE NORTH 19 DEGREES 22 MINUTES 51 SECONDS EAST, ALONG THE WESTERLY LINE OF SAID LOT 5, A DISTANCE OF 30.43 FEET; THENCE SOUTH 83 DEGREES 33 MINUTES 24 SECONDS EAST, A DISTANCE OF 77.96 FEET; THENCE EASTERLY ALONG A TANGENT CURVE, CONCAVE NORTHERLY AND HAVING A RADIUS OF 526.00 FEET, THROUGH AN ANGLE OF 5 DEGREES 39 MINUTES 42 SECONDS, ARC DISTANCE OF 51.98 FEET TO A POINT ON THE NORTHERLY PROLONGATION OF THE EASTERLY LINE OF SAID WESTERLY 139.5 FEET OF LOT 6, A DISTANCE ALONG SAID NORTHERLY PROLONGATION, 15.59 FEET NORTHERLY, FROM SAID NORTHEASTERLY CORNER OF THE WESTERLY 139.5 FEET OF LOT 6; THENCE SOUTHERLY ALONG SAID NORTHERLY PROLONGATION, A DISTANCE OF 15.59 FEET TO THE POINT OF BEGINNING..

PARCEL 3:

THE EAST 69.50 FEET OF THE SOUTH 81.00 FEET OF THE WEST HALF OF LOT 6 OF THE BROKAW TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 1 PAGE 39 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

97 1757051

RECORDING REQUESTED BY

97 1757049

WHEN RECORDED MAIL TO

NAME County of Los Angeles
Treasurer and Tax Collector
MAILING ADDRESS 500 W Temple St Rm 437
CITY, STATE ZIP CODE Los Angeles CA 90012

ATTN: Public Finance

RECORDED/FILED IN OFFICIAL RECORDS
RECORDER'S OFFICE
LOS ANGELES COUNTY
CALIFORNIA
4:01 PM NOV 04 1997

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

TITLE(S)

FREE 0 14

Quitclaim DEED

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 1 of 14
Order: 0 Comment:

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO.

County of Los Angeles
Treasurer and Tax Collector
500 West Temple Street
Room 437
Los Angeles, California 90012
Attention: Public Finance

This space for Recorder's use

QUITCLAIM DEED

The undersigned declares that no documentary transfer tax is payable. This Quitclaim Deed is exempt pursuant to Section 4.60.050 of the Los Angeles County Code, adopted pursuant to Part 6.7 (commencing with Section 11901) of Division 2 of the California Revenue and Taxation Code. A portion of the real property is located in the Cities of Temple City, Pomona and Los Angeles, and a portion is located in the unincorporated area of Los Angeles County.

APN's: 6246- 016- 917

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, the LOS ANGELES COUNTY CAPITAL ASSET LEASING CORPORATION, a California nonprofit public benefit corporation, does hereby remise, release and forever quitclaim to the COUNTY OF LOS ANGELES, a political subdivision of the State of California, all of its right, title and interest in and to that certain real property located in the Cities of Temple City, Pomona and Los Angeles, County of Los Angeles, State of California, and in the unincorporated area of the County of Los Angeles, State of California, all as more particularly described at Exhibit "A" attached hereto.

Dated: November 4, 1997.

LOS ANGELES COUNTY CAPITAL ASSET LEASING CORPORATION, a California nonprofit public benefit corporation

By: Bondie O. Comorell
Name: BONDIE O. COMORELL
Title: PRESIDENT

ATTEST:

By: [signature]
Assistant Secretary

97 1757049

7135-584-Glen D

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 2 of 14
Order: 0 Comment:

State of California)
County of Los Angeles)

On October 28th 1997, before me, the undersigned, personally appeared [illegible] and _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature(s) on the instrument the person or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____ (Seal)

AMBER JOHNSON
Commission # 1134488
Notary Public — California
Los Angeles County
My Comm. Expires Jan 29, 2000

State of California)
County of Los Angeles)

On October 29, 1997, before me, the undersigned, personally appeared Khanh Nguyen and _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose names is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity, and that by his/her/their signature(s) on the instrument the person or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____ (Seal)

RITA M. RICHARD
COMM. # 1092869
Notary Public — California
LOS ANGELES COUNTY
My Comm. Expires OCT 14, 1998

97 1757049

EXHIBIT "A"

LEGAL DESCRIPTION OF REAL PROPERTY

97 1757049

EXHIBIT "A"

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 4 of 14
Order: 0 Comment:

LACLE-PSFC PROPERTY

PETER J. PITCHESS HONOR RANCHO
LAUNDRY EXPANSION SITE:

THAT PORTION OF THE RANCHO SAN FRANCISCO, IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP RECORDED IN BOOK 1, PAGES 521 AND 522, OF PATENTS, IN THE OFFICE OF THE RECORDER OF SAID COUNTY, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

COMMENCING AT THE NORTHEASTERLY TERMINUS OF THAT CERTAIN COURSE OF SOUTH 41°04'05" WEST 2551.70 FEET IN THE SOUTHEASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED TO COUNTY OF LOS ANGELES, RECORDED AS DOCUMENT NO. 463, ON JULY 20, 1939, IN BOOK 16806, PAGE 1, OF OFFICIAL RECORDS, IN THE OFFICE OF SAID RECORDER, FOR THE PURPOSE OF THIS DESCRIPTION, SAID CERTAIN COURSE HAS A BEARING OF SOUTH 41°04'05" WEST; THENCE NORTH 63°55'55" WEST 3995.00 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 15°00'00" WEST 255.00 FEET; THENCE SOUTH 75°00'00" WEST 240.00 FEET; THENCE SOUTH 15°00'00" EAST 255.00 FEET; THENCE NORTH 75°00'00" EAST 240.00 FEET TO SAID TRUE POINT OF BEGINNING.

PETER J. PITCHESS HONOR RANCHO
VISITORS CENTER:

THAT PORTION OF RANCHO SAN FRANCISCO, IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP RECORDED IN BOOK 1, PAGES 521 AND 522, OF PATENTS, IN THE OFFICE OF THE REGISTRAR-RECORDER OF SAID COUNTY, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

COMMENCING AT A POINT IN THAT CERTAIN COURSE OF SOUTH 32°38'40" EAST 524.16 FEET IN THE NORTHEASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED TO STATE OF CALIFORNIA, FOR PUBLIC HIGHWAY, RECORDED ON JULY 12, 1949, IN BOOK 30519, PAGE 228, OF OFFICIAL RECORDS, IN THE OFFICE OF SAID REGISTRAR-RECORDER, DISTANT SOUTH 32°38'40" EAST ALONG SAID CERTAIN COURSE 480.00 FEET FROM THE NORTHWESTERLY TERMINUS OF SAID CERTAIN COURSE; THENCE NORTH 55°50'41" EAST 70.00 FEET TO THE TRUE POINT OF BEGINNING; THENCE CONTINUING NORTH 55°50'41" EAST 1,100.00 FEET; THENCE NORTH 34°09'19" WEST 690.00 FEET; THENCE SOUTH 55°50'41" WEST

97 1757049

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 5 of 14
Order: 0 Comment:

1,100.00 FEET; THENCE SOUTH 34°09'19" EAST 690.00 FEET TO SAID TRUE POINT OF BEGINNING.

TEMPLE CITY SHERIFF'S STATION:

THAT PORTION OF LOTS 36 AND 45, TRACT NO. 3623, IN THE CITY OF TEMPLE CITY, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP FILED IN BOOK 40, PAGE 53, OF MAPS, IN THE OFFICE OF THE RECORDER OF SAID COUNTY, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

COMMENCING AT A POINT IN THAT CERTAIN COURSE OF NORTH 0°11'11" EAST 449.24 FEET IN THE WESTERLY BOUNDARY OF PARCEL 1, AS SHOWN ON MAP FILED IN BOOK 62, PAGES 51 AND 52, OF PARCEL MAPS, IN THE OFFICE OF SAID RECORDER, DISTANT SOUTH 0°12'35" WEST THEREON 130.30 FEET FROM THE MOST NORTHERLY NORTHWESTERLY CORNER OF SAID PARCEL; THENCE NORTH 89°47'25" WEST 79.50 FEET TO THE TRUE POINT OF BEGINNING; THENCE CONTINUING NORTH 89°47'25" WEST 30.30 FEET; THENCE SOUTH 0°12'35" WEST 21.00 FEET; THENCE SOUTH 80°25'11" WEST 26.50 FEET; THENCE SOUTH 9°34'49" EAST 5.70 FEET; THENCE SOUTH 80°25'11" WEST 39.0 FEET TO THE WESTERLY BOUNDARY OF SAID LOT 45; THENCE SOUTHERLY ALONG SAID WESTERLY BOUNDARY TO THE SOUTHERLY TERMINUS OF THAT CERTAIN 1350 FOOT RADIUS CURVE IN SAID WESTERLY BOUNDARY; THENCE SOUTH 9°42'04" EAST ALONG SAID WESTERLY BOUNDARY AND THE WESTERLY LINE OF SAID LOT 36 A DISTANCE OF 99.50 FEET; THENCE NORTH 80°25'11" EAST 65.50 FEET; THENCE NORTH 9°34'49" WEST 98.70 FEET; THENCE SOUTH 89°47'25" EAST 14.30 FEET; THENCE NORTH 0°12'35" EAST 5.70 FEET; THENCE SOUTH 89°47'25" EAST 5.00 FEET; THENCE NORTH 0°12'35" EAST 34.00 FEET; THENCE SOUTH 89°47'25" EAST 6.80 FEET TO A LINE WHICH BEARS SOUTH 0°12'35" EAST AND WHICH PASSES THRU SAID TRUE POINT OF BEGINNING; THENCE NORTH 0°12'35" EAST 5.70 FEET TO SAID TRUE POINT OF BEGINNING.

97 1757049

EXHIBIT "A"
Page 2 of 10

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 6 of 14
Order: 0 Comment:

LACCC PROPERTY

POMONA MUNICIPAL COURTHOUSE:

LOTS 1 TO 4 INCLUSIVE, WM. H. COOK'S RE-SUBDIVISION OF BLOCK 81, TOWN OF POMONA, IN THE CITY OF POMONA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP RECORDED IN BOOK 43, PAGE 13, OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE RECORDER OF SAID COUNTY, THOSE PORTIONS OF LOTS 5 TO 8 INCLUSIVE, SAID WM. H. COOK'S RE-SUBDIVISION OF BLOCK 81, AND THAT PORTION OF THAT CERTAIN 20 FOOT ALLEY, NOW VACATED, AS SHOWN ON SAID MAP, DESCRIBED AS A WHOLE AS FOLLOWS:

BEGINNING AT THE NORTHWESTERLY CORNER OF SAID LOT 4; THENCE SOUTHERLY ALONG THE WESTERLY LINE, AND ITS SOUTHERLY PROLONGATION, OF SAID LOT 4 TO THE NORTHERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS EXHIBIT L IN DEED TO FIRST INTERSTATE BANK OF CALIFORNIA, RECORDED ON NOVEMBER 26, 1985, AS OFFICIAL RECORDS DOCUMENT NO. 85-1405334, IN THE OFFICE OF SAID RECORDER; THENCE IN A GENERAL EASTERLY DIRECTION ALONG SAID NORTHERLY BOUNDARY TO THE EASTERLY LINE OF SAID LOT 8; THENCE NORTHERLY ALONG SAID EASTERLY LINE AND ITS NORTHERLY PROLONGATION TO THE NORTHEASTERLY CORNER OF SAID LOT 1; THENCE WESTERLY ALONG THE NORTHERLY LINES OF SAID LOTS 1 TO 4 INCLUSIVE TO THE POINT OF BEGINNING.

97 1757049

EXHIBIT "A"
Page 7 of 10

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 7 of 14
Order: 0 Comment:

AUTHORITY PROPERTY

LOS ANGELES COUNTY + U.S.C. MEDICAL CENTER:

THAT PORTION OF MARENGO TERRACE, SHEET 2, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP FILED IN BOOK 13, PAGE 21, OF MAPS, IN THE OFFICE OF THE RECORDER OF SAID COUNTY, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

COMMENCING AT A POINT IN THE CENTER LINE OF CUMMINGS STREET, FORMERLY PLYMOUTH STREET, AS SAID CENTER LINE IS SHOWN ON SAID MAP, DISTANT NORTH 28°00'00" EAST THEREON 478.20 FEET FROM THE CENTER LINE OF MARENGO STREET, AS SAID LAST MENTIONED CENTER LINE IS SHOWN ON SAID MAP; THENCE NORTH 62°00'00" WEST 168.85 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 28°10'14" EAST 36.79 FEET; THENCE NORTH 61°49'46" WEST 23.74 FEET; THENCE NORTH 28°10'14" EAST 35.88 FEET; THENCE NORTH 61°49'46" WEST 24.34 FEET; THENCE NORTH 28°10'14" EAST 10.42 FEET; THENCE NORTH 61°49'46" WEST 11.83 FEET; THENCE SOUTH 28°10'14" WEST 10.42 FEET; THENCE NORTH 61°49'46" WEST 82.89 FEET; THENCE SOUTH 28°10'14" WEST 84.45 FEET; THENCE SOUTH 61°49'46" EAST 35.50 FEET; THENCE NORTH 28°10'14" EAST 11.78 FEET; THENCE SOUTH 61°49'46" EAST 48.17 FEET; THENCE SOUTH 28°10'14" WEST 11.78 FEET; THENCE SOUTH 61°49'46" EAST 23.67 FEET; THENCE NORTH 28°10'14" EAST 11.78 FEET; THENCE SOUTH 61°49'46" EAST 35.50 FEET TO SAID TRUE POINT OF BEGINNING.

97 1757049

EXHIBIT "A"
Page 4 of 10

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 8 of 14
Order: 0 Comment:

Mira Loma Facility

SECTION 14, TOWNSHIP 7 NORTH, RANGE 13, WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE CITY OF LANCASTER, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPT THE INTEREST IN THE NORTHERLY 30 FEET OF THE WEST HALF OF THE NORTHWEST QUARTER OF SAID SECTION 14, WHICH WAS CONVEYED TO THE COUNTY OF LOS ANGELES, FOR PUBLIC ROAD AND HIGHWAY PURPOSES, BY DEED RECORDED FEBRUARY 15, 1922 IN BOOK 898 PAGE 160, OFFICIAL RECORDS.

ALSO EXCEPT THE NORTH 25 FEET OF THE NORTHEAST QUARTER OF SAID SECTION 14, CONVEYED TO THE COUNTY OF LOS ANGELES, BY DEED RECORDED MARCH 23, 1901 IN BOOK 1447 PAGE 31 OF DEEDS.

ALSO EXCEPT THE INTEREST IN TTHE SOUTHERLY 5 FEET OF THE NORTHERLY 30 FEET OF THE WEST HALF OF THE NORTHEAST QUARTER OF SAID SECTION 14, WHICH WAS CONVEYED TO THE COUNTY OF LOS ANGELES, FOR PUBLIC ROAD AND HIGHWAY PURPOSES, BY DEED RECORDED JANUARY 9, 1922 IN BOOK 731 PAGE 252, OFFICIAL RECORDS.

ALSO EXCEPT THE INTEREST IN THE SOUTHERLY 5 FEET OF THE NORTHERLY 30 FEET OF THE EAST HALF OF THE NORTHEAST QUARTER OF SAID SECTION 14, WHICH WAS CONVEYED TO THE COUNTY OF LOS ANGELES, FOR PUBLIC ROAD AND HIGHWAY PURPOSES, BY DEED RECORDED FEBRUARY 15, 1922 IN BOOK 901 PAGE 97, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM ALL URANIUM, THORIUM AND OTHER MINERALS, AS EXCEPTED BY RECONSTRUCTION FINANCE CORPORATION AND UNITED STATES OF AMERICA, ACTING BY AND THRU WAS ASSETS ADMINISTRATION, RECORDED OCTOBER 18, 1948 AS INSTRUMENT NOS. 2604 AND 2606.

ALSO EXCEPT THAT PORTION OF SECTION 14, TOWNSHIP 7 NORTH, RANGE 13 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF THE NORTHERLY 50 FEET OF SAID SECTION, WITH THE WESTERLY LINE OF THE EASTERLY 1300 FEET OF SAID SECTION; THENCE SOUTHERLY ALONG SAID WESTERLY LINE, 380.00 FEET TO THE SOUTHERLY LINE OF THE NORTHERLY 430 FEET OF SECTION; THENCE EASTERLY ALONG SAID LAST MENTIONED SOUTHERLY LINE, 879.00 FEET TO THE WESTERLY LINE OF THE EASTERLY 403 FEET OF SAID SECTION; THENCE SOUTHERLY ALONG SAID LAST MENTIONED WESTERLY LINE, 2283.00 FEET TO THE SOUTHERLY LINE OF THE NORTHERLY 2713 FEET OF SAID SECTION; THENCE WESTERLY ALONG SAID LAST MENTIONED SOUTHERLY LINE, 1770.00 FEET TO THE WESTERLY LINE OF THE EASTERLY 2173 FEET OF SAID SECTION; THENCE NORTHERLY ALONG SAID LAST MENTIONED WESTERLY LINE, 2663.00 FEET TO SAID FIRST MENTIONED SOUTHERLY LINE; THENCE EASTERLY ALONG SAID FIRST MENTIONED SOUTHERLY LINE, 873.00 FEET TO THE POINT OF BEGINNING.

EXHIBIT "A" 97 1757049
Pg. 5 of 10

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 9 of 14
Order: 0 Comment:

EXCEPT THEREFROM ALL URANIUM, THORIUM AND OTHER MINERALS, AS EXCEPTED BY RECONSTRUCTION FINANCE CORPORATION AND UNITED STATES OF AMERICA, ACTING BY AND THRU WAR ASSETS ADMINISTRATION, RECORDED OCTOBER 18, 1948 AS INSTRUMENT NOS. 2604 AND 2606.

97 1757049

EXHIBIT "A"
Page 6 of 10

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 10 of 14
Order: 0 Comment:

County Recorder's Building

PARCEL 1A:

PARCEL 1 OF PARCEL MAP NO. 14941, IN THE CITY OF NORWALK, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 170, PAGES 58 AND 59 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THEREFROM THAT PORTION THEREOF WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE SOUTHERLY TERMINUS OF THAT COURSE IN THE COMMON BOUNDARY OF SAID PARCEL 1 AND PARCEL 2 OF SAID PARCEL MAP NO. 14941, SHOWN ON SAID PARCEL MAP NO. 14941, AS HAVING A BEARING AND DISTANCE OF "NORTH 0° 22' 23" WEST 481.00 FEET"; THENCE ALONG SAID COMMON BOUNDARY NORTH 89° 37' 37" EAST 439.90 FEET; THENCE CONTINUING ALONG SAID COMMON BOUNDARY, SOUTH 0° 22' 23" EAST 442.92 FEET TO A POINT IN THE SOUTHERLY BOUNDARY OF SAID PARCEL 1; THENCE ALONG SAID SOUTHERLY BOUNDARY, SOUTH 74° 20' 39" WEST 818.84 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 25.00 FEET; THENCE NORTHWESTERLY 39.27 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 89°59' 41" TO THE WESTERLY LINE OF SAID PARCEL 1; THENCE NORTH 15° 39' 40" WEST 202.04 FEET ALONG SAID WESTERLY LINE TO THE BEGINNING OF CURVE, CONCAVE EASTERLY, HAVING A RADIUS OF 968.00 FEET; THENCE NORTHERLY ALONG SAID CURVE AND SAID WESTERLY LINE THROUGH A CENTRAL ANGLE OF 27° 44' 23"; THENCE LEAVING SAID WESTERLY LINE NORTH 89° 37' 37" EAST 449.22 FEET; THENCE SOUTH 00° 22' 23" EAST 7.37 FEET; THENCE NORTH 89° 37' 37" EAST 33.70 FEET TO THE POINT OF BEGINNING.

SAID LAND IS A PORTION OF THE LAND SHOWN AND DELINEATED AS PROPOSED PARCEL 1 ON LOT LINE ADJUSTMENT NO. 14, APPROVED BY CERTIFICATE OF COMPLIANCE OF THE CITY OF NORWALK, RECORDED MAY 23, 1986 AS INSTRUMENT NO. 86-643260, OFFICIAL RECORDS.

ALSO EXCEPT ALL DEPOSITS OF MINERALS, INCLUDING OIL AND GAS, LYING BELOW THE DEPTH OF 500 FEET, WITHOUT HOWEVER, THE RIGHT TO DRILL OR MINE THROUGH THE SURFACE THEREOF AS RESERVED BY STATE OF CALIFORNIA IN AGREEMENT RECORDED IN BOOK D3880, PAGE 134, OFFICIAL RECORDS AND MODIFIED BY AGREEMENT RECORDED JANUARY 5, 1970 AS INSTRUMENT NO. 2216.

PARCEL 1B:

RECIPROCAL EASEMENTS, AS PER THAT CERTAIN "RECIPROCAL EASEMENT AGREEMENT" BY AND BETWEEN BECHTEL INVESTMENT, INC. AND NORWALK II ASSOCIATES LIMITED AS PER DOCUMENT RECORDED JUNE 20, 1989 AS INSTRUMENT NO. 89-982357 AND AS AMENDED BY A DOCUMENT RECORDED SEPTEMBER 19, 1989 AS INSTRUMENT NO. 89-1506609, AND AS FURTHER AMENDED BY THAT CERTAIN "SECOND AMENDMENT TO RECIPROCAL EASEMENT AGREEMENT," RECORDED

97 1757049

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 11 of 14
Order: 0 Comment:

OCTOBER 30, 1991 AS INSTRUMENT NO. 91-1717688, ALL OF OFFICIAL RECORDS OF SAID COUNTY OVER:

PARCEL 2 OF PARCEL MAP NO. 14941, IN THE CITY OF NORWALK, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 170, PAGES 58 AND 59 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AND THAT PORTION OF PARCEL OF SAID PARCEL 1 MAP NO. 14941, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE SOUTHERLY TERMINUS OF THAT COURSE IN THE COMMON BOUNDARY OF SAID PARCEL 1 AND PARCEL 2 OF SAID PARCEL MAP NO. 14941, SHOWN ON SAID PARCEL MAP NO. 14941, AS HAVING A BEARING AND DISTANCE OF "NORTH 0° 22' 23" WEST 481.00 FEET"; THENCE ALONG SAID COMMON BOUNDARY NORTH 89° 37' 37" EAST 439.90 FEET; THENCE CONTINUING ALONG SAID COMMON BOUNDARY, SOUTH 0° 22' 23" EAST 442.92 FEET TO A POINT IN THE SOUTHERLY BOUNDARY OF SAID PARCEL 1; THENCE ALONG SAID SOUTHERLY BOUNDARY, SOUTH 74° 20' 39" WEST 609.84 FEET; THENCE LEAVING SAID SOUTHERLY BOUNDARY, NORTH 15° 39' 21" WEST 35.53 FEET; THENCE NORTH 0° 22' 23" WEST 189.25 FEET; THENCE NORTH 89° 37' 37" EAST 124.04 FEET; THENCE NORTH 0° 22' 23" WEST 380.14 FEET; THENCE NORTH 89° 37' 37" EAST 33.70 FEET TO THE POINT OF BEGINNING.

Parcel 2A:

That portion of Parcel 1 of Parcel Map No. 14941, in the City of Norwalk, in the County of Los Angeles, State of California, as per map recorded in Book 170, Pages 58 and 59 of Parcel Maps, in the office of the County Recorder of said County, more particularly described as follows:

Beginning at the Southerly terminus of that course in the common boundary of said Parcel 1 and Parcel 2 of said Parcel Map No. 14941, shown on said Parcel Map No. 14941, as having a bearing and distance of "North 0° 22' 23" West 481.00 feet"; thence South 89° 37' 37" West 33.70 feet to the true point of beginning; thence South 00° 22' 23" East 380.14 feet, South 89° 37' 37" West 124.04 feet, South 00° 22' 23" East 189.25 and South 15° 39' 21" East 35.53 feet to a point in the Southerly boundary of said Parcel 1; thence along said Southerly boundary, South 74° 20' 39" West 247.84 feet along said Northerly line to the beginning of a tangent curve, concave Northeasterly, having a radius of 25.00 feet; thence Northwesterly 39.27 feet along said curve through a central angle of 89° 59' 41" to the Westerly line of said Parcel 1; thence North 15° 39' 40" West 202.04 feet along said Westerly line to the beginning of curve, concave Easterly, having a radius of 968.00 feet; thence Northerly along said curve and said Westerly line through a central angle of 27° 44' 23"; thence leaving said Westerly line North 89° 37' 37" East 449.22 feet; thence South 00° 22' 23" East 7.37 feet to the true point of beginning.

97 1757049

EXHIBIT "A"
Page 8 of 10

Said land is a portion of the land shown and delineated as Proposed Parcel 1 on Lot Line Adjustment No. 14, approved by Certificate of Compliance of The City of Norwalk, recorded May 23, 1986 as Instrument No. 86-643260, Official Records.

ALSO EXCEPT all deposits of minerals, including oil and gas, lying below the depth of 500 feet, without however, the right to drill or mine through the surface thereof as reserved by State of California in agreement recorded in Book D3880, Page 134, Official Records and modified by agreement recorded January 5, 1970 as Instrument NO. 2216.

PARCEL 2B:

Reciprocal easements, as per that certain "Reciprocal Easement Agreement" by and between Bechtel Investment, Inc. and Norwalk II Associates Limited as per document recorded June 20, 1989 as Instrument No. 89-982357 and as amended by a document recorded September 19, 1989 as Instrument No. 89-1506609, and as further amended by that certain "Second Amendment to Reciprocal Easement Agreement" recorded October 30, 1991 as Instrument No. 91-1717688, all of Official Records of said County over:

Parcel 2 of Parcel Map No. 14941, in the City of Norwalk, in the County of Los Angeles, State of California, as per map recorded in Book 170, Pages 58 and 59 of Parcel Maps, in the office of the County Recorder of said County, and that portion of parcel of said parcel 1 map No. 14941, within the following described boundaries:

Beginning at the Southerly terminus of that course in the common boundary of said Parcel 1 and Parcel 2 of said Parcel Map No. 14941, shown on said Parcel Map No. 14941, as having a bearing and distance of "North 0° 22' 23" West 481.00 feet"; thence along said common boundary North 89° 37' 37" East 439.90 feet; thence continuing along said common boundary, South 0° 22' 23" East 442.9± feet to a point in the Southerly boundary of said Parcel 1; thence along said Southerly boundary, South 74° 20' 39" West 609.84 feet; thence leaving said Southerly boundary, North 15° 39' 21" West 35.53 feet; thence North 0° 22' 23" West 189.25 feet; thence North 89° 37' 37" East 124.04 feet; thence North 0° 22' 23" West 380.14 feet; thence North 89° 37' 37" East 33.70 feet to the point of beginning.

97 1757049

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 13 of 14
Order: 0 Comment:

PARCEL A:

THAT PORTION OF PARCEL 3 OF PARCEL MAP NO. 23030, IN THE CITY OF NORWALK, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 253 PAGES 93, 94 AND 95 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

SAID LAND IS A PORTION OF THE LAND SHOWN AND DELINEATED AS PROPOSED PARCEL 1 ON LOT LINE ADJUSTMENT NO. 14, APPROVED BY CERTIFICATE OF COMPLAINCE OF THE CITY OF NORWALK, RECORDED MAY 23, 1986 AS INSTRUMENT NO. 86-643260.

ALSO EXCEPT THEREFROM ALL DEPOSITS OF MINERALS, INCLUDING OIL AND GAS, LYING BELOW THE DEPTH OF 500 FEET, WITHOUT HOWEVER, THE RIGHT TO DRILL OR MINE THROUGH THE SURFACE THEREOF, AS RESERVED BY STATE OF CALIFORNIA, IN AGREEMENT RECORDED IN BOOK D-3880 PAGE 134, OFFICIAL RECORDS, AND MODIFIED BY AGREEMENT RECORDED JANUARY 5, 1970 AS INSTRUMENT NO. 2216.

PARCEL B:

RECIRPOCAL EASEMENTS, AS PER THAT CERTAIN "RECIPROCAL EASEMENT AGREEMENT", BY AND BETWEEN BECHTEL INVESTMENT, INC. AND NORWALK II ASSOCIATES LIMITED, AS EPR DOCUMENT RECORDED JUNE 20, 1989 AS INSTRUMENT NO. 89-982357 AND AS AMENDED BY A DOCUMENT RECORDED SEPTEMBER 19, 1989 AS INSTRUMENT NO. 89-1506609, AND AS FURTHER AMENDED BY THAT CERTAIN "SECOND AMENDMENT TO RECIPROCAL EASEMENT AGREEMENT", RECORDED OCTOBER 30 1991 AS INSTRUMENT NO. 91-1717688, RECORDS OF SAID COUNTY. OVER

PARCEL 2 OF PARCEL MAP NO. 14941, IN THE CITY OF NORWALK, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 170 PAGES 58 AND 59 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AND THAT PORTION OF PARCEL OF SAID PARCEL 1 PARCEL NO. 14941, WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE SOUTHERLY TERMINUS OF THAT COURSE IN THE COMMON BOUNDARY OF SAID PARCEL 1 AND PARCEL 2 OF SAID PARCEL MAP NO. 14941, SHOWN ON SAID PARCEL MAP NO. 14941, AS HAVING A BEARING AND DISTANCE OF "NORTH 0 DEGREES 22 MINUTES 23 SECONDS WEST 481.00 FEET"; THENCE ALONG SAID COMMON BOUNDARY, NORTH 89 DEGREES 37 MINUTES 37 SECONDS EAST 439.90 FEET; THENCE CONTINUING ALONG SAID COMMON BOUNDARY, SOUTH 0 DEGREES 22 MINUTES 23 SECONDS EAST 442.92 FEET TO A POINT IN THE SOUTHERLY BOUNDARY OF SAID PARCEL 1; THENCE ALONG SAID SOUTHERLY BOUNDARY, SOUTH 74 DEGREES 20 MINUTES 39 SECONDS WEST 609.84 FEET; THENCE LEAVING SAID SOUTHERLY BOUNDARY, NORTH 15 DEGREES 39 MINUTES 21 SECONDS WEST 35.53 FEET; THENCE NORTH 0 DEGREES 22 MINUTES 23 SECONDS WEST 189.25 FEET; THENCE NORTH 89 DEGREES 37 MINUTES 37 SECONDS EAST 124.04 FEET; THENCE NORTH 0 DEGREES 22 MINUTES 23 SECONDS WEST 380.14 FEET; THENCE NORTH 89 DEGREES 37 MINUTES 37 SECONDS EAST 33.70 FEET TO THE POINT OF BEGINNING.

97 1757049

EXHIBIT "A"
Page 10 of 10

Description: Los Angeles,CA Document-Year.DocID 1997.1757049 Page: 14 of 14
Order: 0 Comment:

RECORDING REQUESTED BY

WHEN RECORDED MAIL TO

NAME ROBERT H. FRANCIS

MAILING ADDRESS 300 S. SPRING ST 5TH FLOOR

CITY, STATE ZIP CODE LOS ANGELES, CA 90013-1204

94 1386137

RECORDED/FILED IN OFFICIAL RECORDS
RECORDER'S OFFICE
LOS ANGELES COUNTY
CALIFORNIA
1 MIN. PAST 2 PM JUL 26 1994

FREE D

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

4

TITLE(S)

FINAL ORDER OF CONDEMNATION

JUL 26 1994

DANIEL E. LUNGREN, Attorney General
of the State of California
ROBERT H. FRANCIS, State Bar No. 37912
MARSHA S. MILLER, State Bar No. 109638
Deputy Attorneys General
300 South Spring Street, Fifth Floor
Los Angeles, California 90013-1204
Telephone: (213) 897-2136

Attorneys for Plaintiff
State of California

JUL 20 1994

FILED
LOS ANGELES SUPERIOR COURT
JUL 20 1994
EDWARD M. KRITZMAN, CLERK
BY K. GEORGE, DEPUTY

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

THE STATE OF CALIFORNIA, acting by and through the State Public Works Board, Plaintiff, v. COUNTY OF LOS ANGELES, et al., Defendants.	CASE NO. BC 000884 FINAL ORDER OF CONDEMNATION (Parcels 8066, 8660, 8661, 8662, 8663)

IT APPEARING THAT pursuant to the Stipulated Interlocutory Judgment on Parcels 8066, 8660, 8661, 8662, and 8663, and Order Thereon, heretofore filed on June 10, 1994, affecting certain real property described in the amended complaint in eminent domain on file herein as Parcels 8066, 8660, 8661, 8662, and 8663, the plaintiff, State of California, acting by and through the State Public Works Board, has paid the total amount of compensation and all sums required by said Judgment and Order, and by law, within the time provided by law.

It further appearing all acts required of the plaintiff have been duly done and performed and plaintiff is now entitled

JUL 26 1994

Description: Los Angeles,CA Document-Year.DocID 1994.1386137 Page: 2 of 9
Order: 0 Comment:

to a Final Order of Condemnation.

NOW THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED the real property hereinafter described and any and all improvements thereon be, and the same are, hereby condemned to the plaintiff, State of California, acting by and through the State Public Works Board, the following estates in real property, to wit: Parcel 8066 (fee simple absolute); Parcel 8660 (right-of-way easement); Parcel 8661 (temporary construction staging area easement); Parcel 8662 (sanitary sewer easement and temporary construction easement); Parcel 8663 (electrical easement); for the public uses and purposes set forth in the amended complaint in eminent domain, to wit: for the use of the Department of Corrections of the State of California, for the California State Prison, Los Angeles County, Lancaster, California, (Mira Loma Site); that the plaintiff is hereby declared to be sole owner of the real property hereinafter described and any and all improvements thereon; that the said real property situate, lying and being in the County of Los Angeles, State of California, hereby vests in the plaintiff, the State of California, acting by and through the State Public Works Board; and a description of the parcels of real property which are the subject of this Final Order of Condemnation are as follows:

///

///

///

///

///

JUL 26 1994

Description: Los Angeles,CA Document-Year.DocID 1994.1386137 Page: 3 of 9
Order: 0 Comment:

///

///

///

///

///

///

///

///

///

///

///

PARCEL 8066

All that certain real property situate in the County of Los Angeles, State of California, and being a portion of Section 14, Township 7 North, Range 13 West, San Bernardino Meridian; said real property being more particularly described as follows:

Commencing at the southeast corner of said Section 14; thence along the easterly line of said Section North 00°12'42" West 2,561.06 feet to a point thereon; thence leaving said line South 89°44'48" West 350.00 feet to the true point of beginning for this description; said point being 350.00 feet perpendicularly distant from said easterly line; thence from said true point of beginning parallel to last said line South 00°12'42" East 1,961.24 feet; thence tangent to the preceding course along the arc of a curve to the right having a radius of 250.00 feet and a central angle of 89°57'30", an arc distance of 392.52 feet to a point that is northerly of and 350.00 feet perpendicularly distant from the southerly line of said Section 14; thence tangent to the preceding curve and parallel to last said line South 89°44'48" West 4,020.01 feet; thence tangent to the preceding course along the arc of a curve to the right having a radius of 250.00 feet and a central angle of 90°03'55", an arc distance of 392.98 feet to a point that is easterly of and 400.00 feet perpendicularly distant from the westerly line of said Section 14; thence tangent to the preceding curve and parallel to last said line North 00°11'17" West 1,540.96 feet; thence South 89°44'54" West 300.00 feet to a point that is easterly of and 100.00 feet perpendicularly distant from said westerly line; thence parallel to last said line North 00°11'17" West 876.48 feet; thence North 89°44'48" East 2,796.67 feet; thence South 45°13'47" East 108.06 feet; thence South 00°12'56" East 380.25 feet; thence North 89°44'48" East 1,945.89 feet; to the true point of beginning and containing 261.74 acres, more or less.

JUL 26 1994

Description: Los Angeles,CA Document-Year.DocID 1994.1386137 Page: 4 of 9
Order: 0 Comment:

PARCEL 8660

A permanent easement and right of way to construct, operate, maintain and from time to time at any time reconstruct, modify, alter, enlarge, add to, remove and replace facilities for the transport or conduction of water, sewage, natural gas or electricity and a roadway for ingress and egress including, but not limited to, the construction of a pipeline, a bridge and all appurtenances thereto, said easement being situate in the City of Lancaster, County of Los Angeles, State of California, and being a portion of Section 14, Township 7 North, Range 13 West, San Bernardino Meridian; said easement being a strip of land 60 feet in width, lying 30 feet on each side of the following described centerline:

BEGINNING at a point on the North line of Avenue "J", a City road, from which point the Southeast corner of said Section 14 bears S 0° 15' 12" E 50.00 feet to a point on the South line of said Section 14; and along last said line and the centerline of said Avenue "J" N 89° 44' 48" E 2,622.56 feet; thence from said point of beginning N 0° 15' 12" W 300.00 feet to the northerly terminus of the herein described strip of land and a point on the South line of the lands of the proposed California State Prison, Los Angeles at Lancaster that is distant thereon S 89° 44' 48" W 2,023.00 feet from the southwesterly point of curvature of a 250.00 foot radius curve located in the Southeast portion of said lands; said strip of land being fully contiguous with said South line of prison lands at its northerly terminus and the said northerly line of Avenue "J" at its southerly terminus.

PARCEL 8561

PARCEL 1

Beginning at a point in the East line of the Southeast 1/4 of Section 14, Township 7 North, Range 13 West, San Bernardino Meridian 2,661.06 feet North 0° 12' 24" West of the Southeast corner of said section. Thence South 89° 44' 36" West 450.00 feet along the Northerly line of the lands of the proposed California State Prison, Los Angeles County at Lancaster, California to the True Point of Beginning. Thence from said Point of Beginning South 89° 44' 36" West 1,845.89 feet to a point in the Northerly line of said Prison Lands. Thence departing said line the following courses: North 0° 12' 42" West, 360.25 feet; North 45° 15' 24" West, 30.32 feet; North 89° 44' 36" East, 71.45 feet; North 0° 12' 42" West, 55.00 feet; North 0° 15' 12" West, 502.24 feet; North 89° 58' 45" East, 1,786.26 feet; South 0° 12' 42" East, 951.45 feet to the POINT OF BEGINNING.

JUL 26 1994

Description: Los Angeles,CA Document-Year.DocID 1994.1386137 Page: 5 of 9
Order: 0 Comment:

PARCEL 2

Beginning at a point in the East line of the Southeast 1/4 of Section 14, Township 7 North, Range 13 West, San Bernardino Meridian 2,561.06 feet North 0° 12' 42" West of the Southeast corner of said section. Thence South 89° 44' 36" West 50.00 feet to a point on the Westerly right of way line of 50th Street which is the TRUE POINT OF BEGINNING.

Thence South 89° 44' 36" West, 400.00 feet; thence North 0° 12" 42" West, 125.00 feet; thence North 89° 44' 36" East, 400.00 feet; thence South 0° 12' 42" East, 125.00 feet to the POINT OF BEGINNING.

PARCEL 8662

A permanent easement and right of way to construct, operate, maintain and, from time to time at any time, reconstruct, modify, alter, enlarge, add to, remove and replace facilities for the transport or conduction of water and sewage, natural gas or electricity and all appurtenances thereto, said easement being situate in the City of Lancaster, County of Los Angeles, State of California, and being a portion of Section 14, Township 7 North, Range 13 West, San Bernardino Meridian; said easement being a strip of land 15 feet in width, lying 7.50 feet on each side of the following described centerline:

BEGINNING AT A POINT FROM WHICH THE NORTHEAST CORNER OF THE LANDS OF THE CALIFORNIA STATE PRISON BEARS SOUTH 89° 47' 19" WEST 7.50 FEET AND NORTH 00° 12' 41" WEST 90.36 FEET, SAID POINT BEING ALSO SOUTH 58° 36' 17" WEST 400.35 FEET FROM THE EAST ONE-QUARTER CORNER OF SAID SECTION 14; THENCE FROM SAID POINT OF BEGINNING NORTH 00° 12' 41" WEST 410.00 FEET; THENCE NORTH 03° 31' 01" EAST 400.00 FEET; THENCE NORTH 00° 00' 04" EAST 1997.19 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 75.00 FEET AND A CENTRAL ANGLE OF 21° 09' 49", SAID CURVE BEING SUBTENDED BY A CHORD BEARING NORTH 10° 34' 59" EAST 27.55 FEET TO THE POINT OF ENDING, SAID POINT BEING ON THE SOUTH LINE OF A 100 FOOT WIDE CITY ROAD KNOWN AS AVENUE "J" SAID POINT ALSO BEARS SOUTH 89° 30' 32" WEST 303.79 FEET AND SOUTH 00° 29' 28" EAST 50.00 FEET FROM THE NORTHEAST CORNER OF SAID SECTION 14.

JUL 26 1994

Description: Los Angeles,CA Document-Year.DocID 1994.1386137 Page: 6 of 9
Order: 0 Comment:

TOGETHER WITH A TEMPORARY CONSTRUCTION EASEMENT OVER A STRIP OF LAND 25 FEET IN WIDTH LYING ADJACENT TO AND EASTERLY OF THE EAST LINE OF THE HEREINABOVE DESCRIBED STRIP OF LAND.

PARCEL 8663

A permanent easement and right of way to construct, operate, maintain and from time to time at any time reconstruct, modify, alter, enlarge, add to, remove and replace facilities for the transport or conduction of natural gas or electricity including, but not limited to, the construction of pipelines, conduits, a bridge and all appurtenances thereto, said easement being situate in the City of Lancaster, County of Los Angeles, State of California, and being a portion of Section 14, Township 7 North, Range 13 West, San Bernardino Meridian; said easement being a strip of land 25.00 feet in width, lying 12.50 feet on each side of the following described centerline:

BEGINNING at a point on the North line of Avenue "J", a City road, from which point the Southeast corner of said Section 14 bears S 0° 15' 12" E 50.00 feet to a point on the South line of said Section 14; and along last said line and the centerline of said Avenue "J" N 89° 44' 48" E 2,814.56 feet; thence from said point of beginning N 0° 15' 12" W 300.00 feet to the northerly terminus of the herein described strip of land and a point on the South line of the lands of the proposed California State Prison, Los Angeles at Lancaster that is distant thereon S 89° 44' 48" W 2,215.00 feet from the southwesterly point of curvature of a 250.00 foot radius curve located in the southeast portion of said lands; said strip of land being fully contiguous with said South line of prison lands and at its northerly terminus and the said Northerly line of Avenue "J" at its southerly terminus.

///

///

///

///

///

///

///

///

///

///

6.

JUL 26 1994

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECREED that upon recordation of a certified copy of this Final Order of Condemnation with the County Recorder of the County of Los Angeles, State of California, the estates in real property to said parcels heretofore described and any and all improvements thereon, free and clear of all taxes and assessments, shall vest in the State of California, acting by and through the State Public Works Board, plaintiff above-named, and it successors and assigns.

IT IS SO ORDERED.

DATED: July 19.

BARNET M. COOPERMAN
JUDGE OF THE SUPERIOR COURT

a:\cola.foc
cond75

THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED IS A FULL, TRUE, AND CORRECT COPY OF THE ORIGINAL ON FILE AND OF RECORD IN MY OFFICE. JUL 26 1994

ATTEST

Executive Officer/Clerk of the Superior Court of California, County of Los Angeles.

By _____ Deputy

LOURDES REYES

JUL 26 1994

Description: Los Angeles,CA Document-Year.DocID 1994.1386137 Page: 8 of 9
Order: 0 Comment:

DECLARATION OF SERVICE BY MAIL

Case Name: State v. County of Los Angeles, et al.,
Case No.: BC000884

I, Debra Martin, declare:

I am over the age of 18 years and not a party to the within action. My business address is 300 S. Spring Street, Los Angeles, California 90013, in the County of Los Angeles.

I am familiar with the business practice at the Office of the Attorney General for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at the Office of the Attorney General is deposited with the United States Postal service that same day in the ordinary course of business.

On July 1, 1994, at my place of business, at Los Angeles, California, the anached

FINAL ORDER OF CONDEMNATION

was placed for collection and deposit in the United States Postal Service at the Office of the Attorney General, 300 S. Spring Street, Los Angeles, California 90013, in a sealed envelope, postage fully prepaid, addressed to:

DENNIS DEVITT
PRINCIPAL DEPUTY COUNTY COUNSEL
648 HALL OF ADMINSITRATION
500 WEST TEMPLE STREET
LOS ANGELES, CA 90012

and that envelope was placed for mailing on that date following ordinary business practices.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and this declaration was executed at Los Angeles, California on July 1, 1994.

DEBRA MARTIN
Declarant

JUL 26 1994

Description: Los Angeles,CA Document-Year.DocID 1994.1386137 Page: 9 of 9
Order: 0 Comment:

Mitigation Monitoring and Reporting Program

County of Los Angeles
Solar Energy Project
City of Lancaster, California
State Clearinghouse No. 2011-051-043

Prepared for

County of Los Angeles
Chief Executive Office
754 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Prepared by

BonTerra Consulting
3452 East Foothill Boulevard, Suite 420
Pasadena, California 91107
T: (626) 351-2000 F: (626)351-2030

August 2011

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Section 21081.6 of CEQA and Section 15097 of the State CEQA Guidelines require a public agency to adopt a Mitigation Monitoring and Reporting Program (MMRP) for assessing and ensuring the implementation of required mitigation measures applied to proposed projects. Specific reporting and/or monitoring requirements that will be enforced during project implementation shall be adopted simultaneously with final project approval by the responsible decision-maker.

The MMRP for the County's Solar Energy Project consists of Mitigation Measures (MMs) that will reduce or avoid significant environmental effects associated with project implementation. The MMs for the Solar Energy Project are listed in the first column in the table below, along with the timeframe for implementation of the MM in the second column, the agency or party with primary responsibility for implementing the MM in the third column, and the agency or party with responsibility for monitoring compliance in the fourth column. Implementation of the MMs for the Solar Energy Project would primarily be the responsibility of the County of Los Angeles, as the Lead Agency under CEQA, and its consultants/contractors.

This page intentionally left blank.

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
Aesthetics			
MM 4.1-1 Upon selection of the project's solar technology, the Project Engineer/Consultant shall provide a glare study that evaluates the level of glare from the proposed solar energy facilities and the site-specific design features, such as alternative mounting angles or restricting movements of tracking systems, which would effectively minimize or eliminate glare impacts to prison guards on the ground and in guard towers. The glare study shall be provided to the County for approval prior to initiation of construction activities.	Prior to initiation of construction activities	Project Engineer/Consultant	County of Los Angeles Department of Public Works
Biological Resources			
MM 4.4-1 To ensure compliance with the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the *California Fish and Game Code,* construction activities shall be conducted outside the bird nesting season (March 15–September 15) to avoid any potential disturbance of avian breeding activities. If site clearing, construction or other ground disturbance would be conducted within the general nesting season (February 15–August 31), then a pre-construction nesting bird survey shall be conducted by a qualified Biologist within three days prior to disturbance. If an active nest is located within or adjacent to the construction area and the Biologist determines that work activities may impact nesting, the Biologist will demarcate an appropriate buffer zone around the nest, generally prohibiting construction activities within 300 feet (500 feet for raptors) of the active nest. The size of the buffer may vary depending on site features, the sensitivity of the species, and the type of construction activity, but will be designed to prevent disruption of nesting activity. If construction activities must occur within the buffer zone of an active bird nest, the Biologist must monitor the construction activities to avoid undue disturbance to the nesting activities. The buffer zone restrictions will be eliminated once the Biologist determines that nesting activity has ceased. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.	Prior to any site clearing, construction or other ground disturbance to be conducted within the general nesting season (February 15–August 31)	Biologist to conduct pre-construction nesting bird survey and establish buffer areas	County of Los Angeles Department of Public Works
	During site clearing, construction or other ground disturbance conducted within the general nesting season (February 15–August 31)	Construction Contractor to follow buffer restrictions in accordance with Contractor Specifications	

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)

Mitigation Measures		Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
MM 4.4-2	The "Avoidance Area" along the southern boundary of the Challenger Memorial Youth Center (as shown in Exhibit 4-9 of the Initial Study) shall not be subject to any vegetation removal, ground disturbance (e.g., grading, excavation, vehicular/equipment encroachment), and any disturbance of any riparian vegetation (i.e., removal or trimming) on the bed and banks of the shallow drainage. If electrical lines or infrastructure need to cross this Avoidance Area, above-ground pipe or overhead utility lines (or other means of avoiding vegetation and ground disturbance) shall be used to connect the electrical line to the Challenger property. The Avoidance Area shall be staked prior to commencement of construction activities in the vicinity of the Challenger property by a qualified Biologist, and the staking shall remain in place until the completion of construction activities. The graphic depicting the Avoidance Area shall be included within the contractor specifications to define the limits of the Avoidance Area and identify the prohibited activities within this area. The Contractor's compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.	Prior to construction along southern boundary of the Challenger Memorial Youth Center	Biologist to stake Avoidance Area	County of Los Angeles Department of Public Works
		During entire construction phase	Construction Contractor to stay away from Avoidance Area in accordance with Contractor Specifications	
MM 4.4-3	The maintenance contract to be signed between the County and the maintenance contractor shall include a narrative description and a graphic depicting the Off-site Avoidance Area, where vegetation removal, ground disturbance, discharge, fill or debris placement, vehicular/equipment encroachment, or	Prior to start of maintenance activities along southern boundary of Challenger Memorial Youth Center	Biologist to stake Avoidance Area	County of Los Angeles Department of Public Works

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
	During maintenance activities along southern boundary of Challenger Memorial Youth Center	Maintenance Contractor to stay away from Avoidance Area in accordance with Contractor Specifications County Maintenance Personnel to stay away from Avoidance Area	
Cultural Resources			
MM 4.5-1 Prior to any earthmoving or other construction activity in the vicinity of the wastewater treatment and reclamation system, the following steps shall be implemented by the Contractor: 1. A buffer that is a minimum of 30 feet from the former wastewater treatment system shall be placed between the sewage treatment and water reclamation system structures and any ground-disturbing or landscaping activities. This buffer zone must be enhanced by the installation of permanent fencing to protect the structures from construction activities associated with the installation of the solar energy project, as well as potential future vandalism. 2. There is a possibility that a utility sewer pipe that delivered the raw sewage to the wastewater treatment system, from what is now known as the Mira Loma Detention Center, still exists, and that it may still be connected to the wastewater treatment system. Such a pipe, if it exists, would not be considered part of the historic sewage treatment and water reclamation system structures because it is a common clay pipe not unique to this historic resource. If such a sewer delivery pipe exists within the project site and is connected to the sewage treatment and water reclamation system, it may be cut and removed from the project site as required for construction, provided any ground disturbance on the project site is at least 30 feet away from the sewage treatment and water reclamation system, outside of the buffer zone. The County shall confirm these requirements are included in the contractor specifications and contractor compliance with these requirements shall be performed to the satisfaction of the County Department of Public Works.	Prior to start of grading and excavation activities in the vicinity of the wastewater treatment and reclamation system	Archaeologist to stake 30-foot buffer around former wastewater treatment system	County of Los Angeles Department of Public Works
	During grading and excavation activities	Construction Contractor to stay away from 30-foot buffer area in accordance with Contractor Specifications	

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
MM 4.5-2 Prior to commencement of construction activities, the County shall retain a qualified Archaeologist to observe grading activities and to salvage and catalogue archaeological resources, as necessary. The Archaeologist shall be present at the pre-grade conference; shall establish procedures for archaeological resource surveillance; and shall establish, in cooperation with the Project Engineer/Consultant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts, as appropriate. If archaeological resources are found to be significant, the Archaeologist shall determine appropriate actions, in cooperation with the County, for exploration and/or salvage. Work may proceed in other areas of the site, subject to the direction of the Archaeologist. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the County.	Prior to start of construction	County to retain Archaeologist and Archaeologist to conduct pre-grade conference	County of Los Angeles Department of Public Works
	During ground-disturbing activities	Archaeologist to monitor ground-disturbing activities for presence of archaeological resources	
MM 4.5-3 If during project grading fossil resources are discovered by the Archaeological Monitor, Project Engineer/Consultant, or others, ground-disturbing activities in the vicinity of the discover shall be halted or diverted until a qualified Paleontologist inspects the find and evaluates it for significance. Work may proceed in other areas of the site, subject to the direction of the Paleontologist. If determined significant, the Paleontologist shall be empowered to quickly and efficiently salvage and remove the fossil from its locality, as appropriate, before ground-disturbing activities resume in the area. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the County.	If fossil resources are discovered during grading and excavation activities	Paleontologist to evaluate the find and salvage fossils, as appropriate	County of Los Angeles Department of Public Works
Hazards and Hazardous Materials			
MM 4.8-1 Prior to site clearing, painted structures or materials on the site (including any painted surfaces of construction debris and the former loading dock) shall be sampled for lead-based paint. In the event that lead-based paint is detected, all removal and disposal shall be conducted in accordance with applicable regulatory requirements, including use of contractors with appropriate certifications from the California Department of Health Services (DHS) and CalOSHA regulations to protect worker safety during potential exposure to lead under Title 8 of the *California Code of Regulations,* Section 1532.1 (Lead). The County shall confirm this requirement is included in the	Prior to site clearing	Construction Contractor to dispose of painted structures or materials in accordance with Contractor Specifications	County of Los Angeles Department of Public Works

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.			
MM 4.8-2 Upon determination of the location of the solar panels and appurtenant facilities on the project site, soil samples shall be taken and tested for contaminants of concern. The result of the laboratory data would dictate whether the site requires further action, to be conducted in compliance with applicable regulations and under oversight by a local or State governmental agency. Additionally, if abnormal soil staining and/or odors are encountered during grading and excavation activities that could indicate the presence of petroleum hydrocarbons, heavy metals, or other contamination, construction activities shall be halted and an assessment of the soils shall be conducted prior to the continuation of grading or excavation activities. If the results of the soil testing show the presence of chemicals below regulatory levels, grading or excavation may proceed accordingly. If chemical levels are above regulatory standards, remediation and/or removal of contaminated soils in compliance with applicable local, State, and federal standards and requirements shall be conducted prior to project construction. The County shall confirm this requirement is included in the contractor specifications and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.	If abnormal soil staining and/or odors are encountered during grading and excavation activities	Construction Contractor in accordance with Contractor Specifications	County of Los Angeles Department of Public Works
MM 4.8-3 During operation, the County shall require the use of cleaning agents or additives that are biodegradable, non-toxic, and non-hazardous to plants, animals, and groundwater in all PV panel cleaning activities, and shall set forth this requirement in the contract for the maintenance activities on the site. The County shall confirm this requirement is included in the maintenance contract and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.	During operation (PV panel cleaning activities)	Maintenance Contractor in accordance with Contractor Specifications or County Maintenance Personnel	County of Los Angeles Department of Public Works

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
MM 4.8-4 The solar array shall be designed to avoid areas at the site where the PV panels and other aboveground improvements could extend out into the approach zone for the helipad, which is defined by an imaginary surface extending out at a slope of 8:1 from the Final Approach and Takeoff Area (FATO) of the helipad, with a width of 500 feet and a length of 4,000 feet. The County shall confirm this requirement is incorporated into the project design by the Project Engineer/Consultant and compliance with this requirement shall be verified by the County Department of Public Works prior to approval of the site improvement and building plans.	Prior to approval of site improvement and building plans	Project Engineer/Consultant	County of Los Angeles Department of Public Works
Noise			
MM 4.12-1 Prior to any grading or construction activities within 50 feet of the Mira Loma Detention Center, a 10-foot-high temporary noise barrier shall be constructed between the disturbance area and the nearest noise receiver at the Mira Loma Detention Center. The noise barrier shall be constructed of material with a minimum weight of four pounds per square foot with no gaps or perforations. The noise barrier may be constructed of, but are not limited to, $^{5}/_{8}$-inch-thick plywood or $^{5}/_{8}$-inch-oriented strand board. The noise barrier shall remain in place until the end of grading or construction activities.	Prior to any grading or construction activities within 50 feet of the Mira Loma Detention Center	Construction Contractor in accordance with Contractor Specifications	County of Los Angeles Department of Public Works
MM 4.12-2 The County of Los Angeles Public Works Director shall include the following requirements into the contractor specifications: 1. All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and periodically inspected to ensure compliance. 2. Stationary equipment, such as generators and air compressors, shall be located at least 200 feet from the Mira Loma Detention Center. 3. Equipment maintenance and staging areas shall be located at least 400 feet from the HDHS MACC and the Mira Loma Detention Center. 4. Stockpiling and/or vehicle staging areas shall be located at least 400 feet from the HDHS MACC and the Mira Loma Detention Center. The contractor's compliance with these requirements shall be performed to the satisfaction of the County Department of Public Works.	During construction	Construction Contractor in accordance with Contractor Specifications	County of Los Angeles Department of Public Works

SOLAR ENERGY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (Continued)

Mitigation Measures	Mitigation Timing	Responsible Agency/Party	Monitoring Agency/Party
Public Services			
MM 4.14-1 Although no significant impact would occur, a setback of at least 100 feet from the fence line of the Mira Loma Detention Center shall be maintained where no permanent structures shall be located. Further, no parking or storage shall be made within this 100-foot setback area during construction. The County shall require the Project Engineer/Consultant and contractor to comply with this requirement through its incorporation into the project design and the contractor specifications. Project design and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.	Prior to approval of site improvement plans	No permanent structures shall be designed by the Project Engineer/ Consultant within 100 feet of Mira Loma Detention Center fence line	County of Los Angeles Department of Public Works
	During construction	No parking or storage shall be made by Construction Contractor within 100 feet of the Mira Loma Detention Center fence line in accordance with Contractor Specifications	
Utilities and Service Systems			
MM 4.17-1 Water for short-term construction site watering and long-term PV panel washing and water tank storage for fire suppression (if required), shall utilize non-potable water or water derived from sources other than the Antelope Valley Groundwater Basin. The County shall confirm this requirement is included as notes on the contractor specifications. The Contractor's compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.	During construction	Construction Contractor in accordance with Contractor Specifications	County of Los Angeles Department of Public Works
MM 4.17-2 No landscaped areas or planting requiring a permanent supply of irrigation water shall be installed at the site. Minimal landscaping for the site would require two acre-feet of water per year, a demand for water which will be avoided due to this mitigation measure. The County shall confirm this requirement is incorporated into the project design by the Project Engineer/Consultant and compliance with this requirement shall be verified by the County Department of Public Works prior to approval of the site improvement plans.	Prior to approval of site improvement plans	Project Engineer/Consultant	County of Los Angeles Department of Public Works

This page intentionallyleft blank