DRAFT ENVIRONMENTAL IMPACT REPORT

AIDLIN HILLS PROJECT

LOS ANGELES COUNTY, CALIFORNIA

STATE CLEARINGHOUSE NO: 2014091027

COUNTY PROJECT NO. 00-136
VESTING TENTATIVE TRACT MAP 52796
CONDITIONAL USE PERMIT 00-136
OAK TREE PERMIT 00-136

VOLUME I OF III
(DRAFT EIR AND APPENDICES A THROUGH B)

Prepared For:
LENNAR
980 Montecito Drive, Suite 301
Corona, California 92879
Contact: Denise Williams-Montagna

Prepared By:
PCR Services Corporation
2121 Alton Parkway, Suite 100
Irvine, California, 92606
Contact: Daryl Koutnik, Principal, Biological and Environmental Compliance

December 2015

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Richard J. Bruckner
Director

NOTICE OF HEARING EXAMINER PUBLIC HEARING
NOTICE OF COMPLETION AND AVAILABILITY
OF DRAFT ENVIRONMENTAL IMPACT REPORT
FOR
AIDLIN HILLS RESIDENTIAL PROJECT
PROJECT NO.: 00-136-(5)
VESTING TENTATIVE MAP TR052796
CONDITIONAL USE PERMIT NO. 00-136
OAK TREE PERMIT NO. 00-136
ENVIRONMENTAL ASSESSMENT NO. 00-136
STATE CLEARINGHOUSE NO. 2014091027

The Los Angeles County Department of Regional Planning, acting in the capacity of "Lead Agency" under the County Environmental Guidelines, Chapter III, Section 304, has filed a "Notice of Completion and Availability" of a Draft Environmental Impact Report (DEIR) for the Project. This document has been prepared in accordance with, and pursuant to, the California Environmental Quality Act (CEQA), as amended; Public Resources Code, Section 21000 *et seq.*; and the "Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines), California Code of Regulation, Title 14, Chapter 15000 *et seq.*, (including Section 15160).

PUBLIC REVIEW PERIOD
The formal public review period for the DEIR will be from December 8, 2015 to January 21, 2016 (45 days). All comments received by the closing of the public review period will be considered in the Final EIR.

SITE LOCATION
26300 block of Pico Canyon Road, about 1.6 miles west of Interstate Highway 5 within the unincorporated community of Stevenson Ranch. (APNs 2826-020-020 through 024, 2826-020-030 through 033 and 2826-097-003).

PROPOSED PROJECT
The Project applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including load roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. The proposed residential lots would occupy 21.2 acres. The remaining improved areas of the Project site would include 3.8 acres for water tanks/pump stations, 4.3 acres of water quality basins, a 1.4-acre fire access road, and 9.7 acres of public streets. The Project applicant also proposes the preservation of 165 acres of undeveloped, natural area within the southern and western portions of the Project site, with an additional 25.1 acres of landscaped area. The Project would require about 3,200,000 cubic yards of grading (cut and fill) to be balanced on-site. One oak tree would be removed.

The project requires the approval of a vesting tentative tract map (TR052796), conditional use permit (CUP 00-136) and an oak tree permit (OTP 00-136).

320 West Temple Street ▪ Los Angeles, CA 90012 ▪ 213-974-6411 ▪ Fax: 213-626-0434 ▪ TDD: 213-617-2292

SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The proposed project potentially significant effects include impacts to air quality during construction, project and cumulative construction NO_X emissions, special-status species, sensitive natural communities, regulated jurisdictional waterways, protected native trees, archaeological resources, unique paleontological resources, seismic hazards, soil erosion and expansive soils, release of hazardous materials from contaminated soils or inactive oil wells, wildfire hazards, flood or erosion hazards, construction noise, public services availability, and traffic during construction and operational phases.

HEARING EXAMINER HEARING

A public hearing on the DEIR has been scheduled before the Los Angeles County Department of Regional Planning Hearing Examiner on January 11, 2016, starting at 6:00 p.m. and ending after the last testifer or 8:00 p.m., whichever comes first, at the Pico Canyon Elementary School – Multipurpose Room, 25255 Pico Canyon Road, Stevenson Ranch, CA 91381. The purpose of this hearing will be to gather public comments on the adequacy of the DEIR.

LATER PUBLIC HEARING

A public hearing on the proposed project and the DEIR will be scheduled before the Los Angeles County Regional Planning Commission at a time and date to be determined in the Regional Planning Commission Hearing Room (1st Floor, Room 150), 320 West Temple Street, Los Angeles, CA 90012.

REVIEWING LOCATIONS

To ensure public access to the DEIR, copies of the document are available for review at the following County libraries:

- Stevenson Ranch Library
  25920 The Old Road
  Santa Clarita, CA 91381

- Valenica Public Library
  23743 West Valencia Boulevard
  Santa Clarita, CA 91355

A copy of the DEIR will also be available for public review Monday through Thursday, 7:30 a.m. to 5:30 p.m. at:

County of Los Angeles
Department of Regional Planning
Land Divisions Section, Room 1382
320 West Temple Street
Los Angeles, CA 90012

An electronic version of the DEIR is also available on the Department's website at http://planning.lacounty.gov/case by typing the project number **00-136** into the "Search Case Archive" window.

Please submit written comments on the DEIR to Tyler Montgomery of the Department of Regional Planning at the above address. You may also fax your written comments to (213) 626-0434, or email to tmontgomery@planning.lacounty.gov. Should you have any questions, please call (213) 974-6433.

PROJECT VICINITY MAP

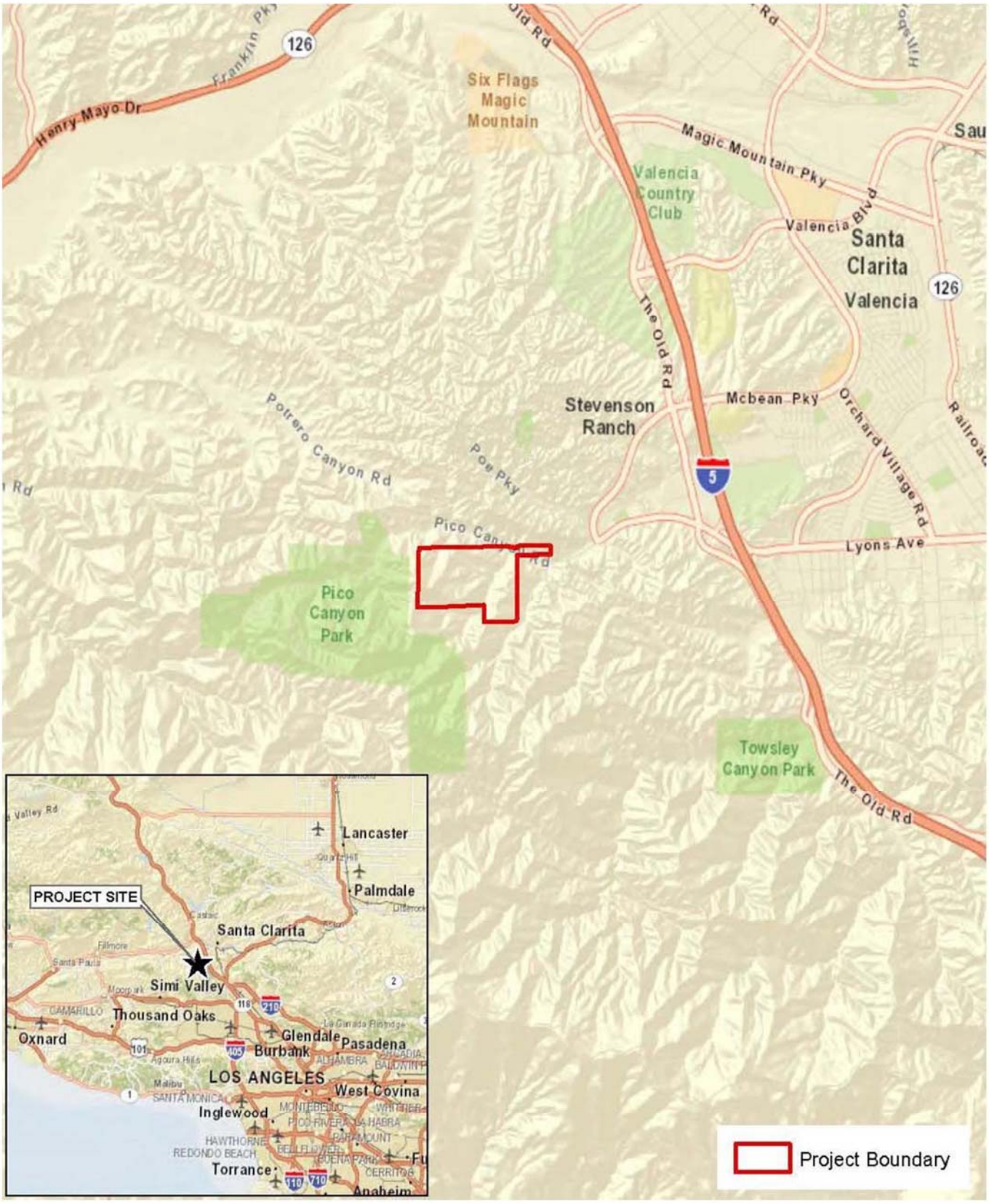


Table of Contents

Page

VOLUME I

EXECUTIVE SUMMARY **ES-1**

1.0 INTRODUCTION **1-1**

2.0 PROJECT DESCRIPTION **2-1**

3.0 BASIS FOR CUMULATIVE ANALYSIS **3-1**

4.0 ENVIRONMENTAL ANALYSIS

4.1 Aesthetics 4.1-1
4.2 Air Quality 4.2-1
4.3 Biological Resources 4.3-1
4.4 Cultural Resources 4.4-1
4.5 Geology and Soils 4.5-1
4.6 Greenhouse Gas Emissions 4.6-1
4.7 Hazards and Hazardous Materials 4.7-1
4.8 Hydrology and Water Quality 4.8-1
4.9 Land Use and Planning 4.9-1
4.10 Noise 4.10-1
4.11 Public Services 4.11-1
4.12 Traffic/Transportation 4.12-1

5.0 ALTERNATIVES **5-1**

6.0 OTHER MANDATORY CEQA CONSIDERATIONS **6-1**

7.0 LIST OF PREPARERS **7-1**

8.0 REFERENCES **8-1**

9.0 MITIGATION MONITORING AND REPORTING PROGRAM **9-1**

List of Appendices

Appendix A – Notice of Preparation/NOP Comment Letters
Appendix B – Air Quality Worksheets

VOLUME II

Appendix C – Biological Resources
Appendix D – Phase I Cultural and Paleontological Resources Assessment
Appendix E – Geotechnical Evaluation and 100-Scale Plan Review
Appendix F – Greenhouse Gas Worksheets
Appendix G – Phase 1 Environmental Site Assessment/Subsurface Investigation

List of Appendices (Continued)

VOLUME III

Appendix H – Drainage Concept Plan/Hydrology Report
Appendix I – Noise Worksheets
Appendix J – Public Service and Utility Correspondence
Appendix K – Traffic Impact Analysis
Appendix L – Sewer Area Study

List of Figures

Page

2-1 Regional Location and Project Vicinity Map 2-3
2-2 Aerial Photograph 2-4
2-3(a) Existing Site Photographs 2-5
2-3(b) Existing Site Photographs 2-6
2-4 Vesting Tentative Tract Map 2-7
2-5 Slope Density Exhibit 2-11
2-6 Conceptual Landscape Plan 2-15
2-7 Project Entry Plan 2-16
3-1 Related Projects Location Map 3-3
4.1-1 View Location Map 4.1-7
4.1-2 Views of the Project Site 4.1-8
4.1-3 Photographic Simulation Looking West from Verandah Court 4.1-15
4.1-4 Photographic Simulation Looking Southwest from Pico Canyon Road 4.1-16
4.2-1 Boundaries of the South Coast Air Quality Management District and Federal Planning Areas 4.2-15
4.2-2 Background Inhalation Cancer Risk for Project Site Area 4.2-23
4.2-3 Closest Sensitive Receptor Locations 4.2-24
4.3-1 Plant Communities 4.3-11
4.3-2 Sensitive Plants Locations 4.3-23
4.3-3 Regional Aerial Photograph 4.3-27
4.3-4 Impacts to Sensitive Plants 4.3-31
4.3-5 Impacts to Plant Communities 4.3-39
4.3-6 Impacts to Jurisdictional Features 4.3-43
4.3-7 Impacts to Oak Trees 4.3-51
4.5-1 Geologic Map 4.5-7
4.5-2 Regional Fault Map 4.5-11
4.5-3 Seismic Hazard Zones 4.5-19
4.7-1 Fuel Modification Plan 4.7-3
4.9-1 Project Site Zoning Categories. 4.9-13
4.9-2 Santa Clarita Valley Area Plan Land Use Designations (1990) 4.9-14
4.9-3 Open Space Exhibit 4.9-39
4.10-1 Common Noise Levels 4.10-3
4.10-2 Noise Measurement Locations 4.10-11
4.12-1 Project Location Study Area 4.12-5
4.12-2 Existing Roadway System 4.12-6
4.12-3 Existing Intersection Lane Configurations 4.12-9

List of Figures (Continued)

Page

4.12-4 ADT Volumes (000s) – Existing Conditions 4.12-10
4.12-5 A.M. Peak Hour Turning Movement Volumes Existing Conditions 4.12-11
4.12-6 P.M. Peak Hour Turning Movement Volumes Existing Conditions 4.12-12
4.12-7 Related Projects Location Map 4.12-17
4.12-8 Project Trip Distribution 4.12-25
4.12-9 ADT Volumes – Project Only 4.12-26
4.12-10 A.M. Peak Hour Volumes – Project Only 4.12-27
4.12-11 P.M. Peak Hour Volumes – Project Only 4.12-28
4.12-12 ADT Volumes (000s) – Existing Plus Project 4.12-29
4.12-13 AM Peak Hour Turning Movement Volumes Existing-plus-Project 4.12-30
4.12-14 PM Peak Hour Turning Movement Volumes Existing-plus-Project 4.12-31
4.12-15 ADT Volumes (000s) – Cumulative Conditions without Project (2034) 4.12-35
4.12-16 A.M. Peak Hour Turning Movement Volumes Cumulative Conditions without Project (2034) 4.12-36
4.12-17 P.M. Peak Hour Turning Movement Volumes Cumulative Conditions without Project (2034) 4.12-37
4.12-18 ICU Summary – Cumulative Conditions (2034) with and without Project 4.12-38
4.12-19 A.M. Peak Hour Turning Movement Volumes Cumulative Conditions with Project (2034) 4.12-39
4.12-20 P.M. Peak Hour Turning Movement Volumes Cumulative Conditions with Project (2034) 4.12-40

List of Tables

Page

ES-1 Summary of Project Impacts and Mitigation Measures ES-8
2-1 Project Summary 2-9
2-2 Tree Action Summary 2-10
3-1 Related Projects List 3-2
4.2-1 Ambient Air Quality Standards [a] 4.2-4
4.2-2 South Coast Air Basin Attainment Status (Los Angeles County) 4.2-6
4.2-3 Pollutant Standards and Ambient Air Quality Data [a] 4.2-18
4.2-4 Maximum Unmitigated Regional Construction Emissions [a] (pounds per day) 4.2-35
4.2-5 Maximum Unmitigated Regional Operational Emissions [a] (pounds per day) 4.2-36
4.2-6 Maximum Unmitigated Localized Construction Dispersion Modeling Analysis [a] 4.2-38
4.2-7 Maximum Unmitigated Localized Operational Emissions [a] (pounds per day) 4.2-39
4.2-8 Maximum Mitigated Regional Construction Emissions [a] (pounds per day) 4.2-46
4.2-9 Maximum Mitigated Localized Construction Dispersion Modeling Analysis [a] 4.2-46
4.3-1 Plant Communities 4.3-13
4.3-2 Impacts to Plant Communities 4.3-38
4.6-1 State of California Greenhouse Gas Emissions 4.6-14
4.6-2 Unmitigated Construction Greenhouse Gas Emissions 4.6-24
4.6-3 Unmitigated Operational Greenhouse Gas Emissions 4.6-25
4.6-4 Project Consistency with County of Los Angeles Draft General Plan and Santa Clarita Valley Area Plan ("One Valley, One Vision" Plan) 4.6-26

List of Tables (Continued)

Page

4.6-5 Project Consistency with Community Climate Action Plan [a] 4.6-28
4.6-6 GHG Reduction Strategies 4.6-31
4.8-1 Existing Condition Clear Flows (cfs) 4.8-10
4.8-2 Existing Condition Burned Flows (cfs) 4.8-10
4.8-3 Existing Condition Clear Volumes (ac-ft) 4.8-10
4.8-4 Developed Condition Clear Flows (cfs) 4.8-26
4.8-5 Developed Condition Burned Flows (cfs) 4.8-27
4.8-6 Developed Condition Clear Volume (ac-ft) 4.8-27
4.8-7 Developed Condition Burned and Bulked 50-YR Flowrates (cfs) 4.8-27
4.9-1 Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035 ..... 4.9-18
4.9-2 Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan 4.9-28
4.9-3 Consistency of the Project with Applicable Goals of the 2012 - 2035 Regional Transportation Plan Sustainable Communities Strategy 4.9-34
4.9-4 Project Site Slope Analysis 4.9-41
4.9-5 Density Calculation Table 4.9-42
4.9-6 Density Transfer Summary 4.9-43
4.10-1 Los Angeles County Exterior Noise Standards for Stationary and Point Noise Sources 4.10-6
4.10-2 Los Angeles County Construction Equipment Noise Restrictions 4.10-7
4.10-3 Los Angeles County Residential Air-Conditioning or Refrigeration Equipment Standards 4.10-8
4.10-4 Land Use Compatibility for Community Noise Environments 4.10-9
4.10-5 Summary of Ambient Noise Measurements 4.10-13
4.10-6 Traffic Noise Model Calibration Results 4.10-14
4.10-7 Predicted Existing Vehicular Traffic Noise Levels 4.10-15
4.10-8 Construction Equipment Noise Levels 4.10-21
4.10-9 Estimate of Construction Noise Levels (L_{eq}) at Off-Site Sensitive Receiver Locations 4.10-22
4.10-10 Off-Site Traffic Noise Impacts 4.10-24
4.10-11 Typical Vibration Velocities for Potential Project Construction Equipment 4.10-27
4.11-1 Existing Schools Serving the Project Vicinity 4.11-8
4.11-2 NSD & Hart School District Student Generation Factors 4.11-14
4.12-1 Intersection Analysis Locations 4.12-7
4.12-2 ICU and LOS Summary – Existing Conditions 4.12-7
4.12-3 Defined Related Projects Included in the Cumulative Database 4.12-15
4.12-4 Level of Service Description – Arterial Roadways and Intersections 4.12-19
4.12-5 Arterial Intersection Performance Criteria 4.12-20
4.12-6 Land Use and Trip Generation Summary 4.12-23
4.12-7 ICU Summary – Existing Conditions with and without Project 4.12-33
4.12-8 ICU Summary – Cumulative Conditions (2034) with and without Project 4.12-41
5-1 Comparison of Impacts Associated with the Alternatives and Impacts of the Project 5-27
5-2 Project Alternatives' Ability to Meet Project Objectives 5-33

EXECUTIVE SUMMARY

This Draft Environmental Impact Report (Draft EIR County Project No. 00-136; State Clearinghouse No. 2014091027) has been prepared pursuant to the requirements of the California Environmental Quality Act (CEQA, Public Resources Code sections 21000 *et. seq*) with respect to the proposed Aidlin Hills Project ("the Project"). In accordance with *State CEQA Guidelines* Section 15123, this Section of the EIR provides a brief description of the Project, identification of significant effects and proposed mitigation measures or alternatives that would reduce or avoid those effects, areas of controversy known to the lead agency, and issues to be resolved including the choice among alternatives and whether and how to mitigate any significant effects.

1. PROPOSED PROJECT

Project Location and Surrounding Uses

The Project site is located in the northern foothills of the Santa Susana Mountains in an unincorporated section of Los Angeles County (County) known as Stevenson Ranch. Regional access to the Project site is provided via Interstate 5 (I-5) located approximately 1.6 miles east of the Project site. Local access to the Project site is provided via Pico Canyon Road, a County master-planned arterial road.

A single-family residential community, Southern Oaks, abuts the Project site on the east. The area to the west of the Project site is mostly undeveloped within Pico Canyon, but this area includes the remaining historic buildings of Mentryville and the Pico Canyon Oil Field Well No. 4. Mentryville and the Pico Canyon Oil Field Well No. 4 are state historic landmarks managed by the Santa Monica Mountains Conservancy (SMMC). The Pico Canyon Trail, a proposed 5.62-mile trail mostly adjacent to Pico Canyon Road would meander through Pico Canyon in areas generally to the east and southeast of the Project site. A 0.6-mile section of this trail currently exists, extending westward from the trailhead at Stevenson Ranch Parkway to current trail end at the Southern Oaks community. It is planned for this trail to eventually provide access to Mentryville. The areas directly to the north and south of the Project site are mostly undeveloped with moderate to steep variations in topography.

Description of the Project

The Project applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, two 250,000-gallon water tanks with a pump station, water quality treatment basins, and an emergency secondary fire access road within a 230.5-acre Project site. The proposed residential lots would occupy approximately 21.2 acres of the Project site. The Project would require approximately 1,600,000 cubic yards of cut material, which includes 300,000 cubic yards of over-excavation, with all cut material being used as fill material on the site. The architectural styles proposed for the single-family dwellings would encompass Craftsman, Spanish, Tuscan, Colonial and eclectic styles. Typical building materials, including stucco, siding, and stone veneer, would be used. The remaining improved areas of the Project site would include 3.8 acres for the water tanks/pump station, 4.3 acres of water quality basins, 9.7 acres of public streets, and 1.4 acres for the emergency secondary fire access road. On-site developed-area drainage would be diverted to filtration ponds prior to discharge into Pico Creek. The Project applicant proposes to widen the segment of Pico Canyon Road that generally traverses the

northern boundary of the Project site in accordance with the approved alignment of the road; the improvements also will be consistent with the County's designation of the roadway as a major arterial. A 24-foot wide paved emergency vehicle access road, connecting with Verandah Court to the east, would be maintained to provide gated emergency fire access.

The Project applicant also proposes the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. The current drainage of the Project site would be altered by the construction of "A" Street and Project water quality basins at the location where Pico Creek and Wickham Canyon currently join. Wickham Canyon would also be planted with indigenous native trees and shrubs.

2. ISSUES RAISED DURING NOP PROCESS

The County circulated a Notice of Preparation (NOP) to public agencies, special districts, and members of the public for an extended 45-day period commencing September 15, 2014 and ending October 29, 2014. The purpose of the NOP was to formally convey that the County is preparing an EIR for the Project, and to solicit input regarding the scope and content of the environmental information to be included in the EIR. A description of the Project was circulated with the NOP. The following summarizes the key potential environmental issues raised in response to the NOP and during the public scoping meeting (the numerical reference in parenthesis is the EIR section in which the analysis is provided). Please refer to Section 1.0, *Introduction*, in this EIR for a detailed discussion of the CEQA environmental review process. The NOP comments are contained in Appendix A:

<u>Aesthetics</u>

- Impacts on the visual character of the site and its surroundings (refer to Section 4.1, *Aesthetics,* of this Draft EIR);
- Impacts on trails (refer to Section 4.1, *Aesthetics,* of this Draft EIR);
- Impacts on natural ridgelines and landforms (refer to Section 4.1, *Aesthetics,* of this Draft EIR); and
- Light and glare impacts (refer to Section 4.1, *Aesthetics,* of this Draft EIR).

<u>Air Quality</u>

- Short-term construction-related air quality impacts associated with the Project. Short-term air quality impacts including particulate (dust) related impacts are included in Section 4.2, Air Quality, and Section 4.7, Hazards and Hazardous Materials, of this Draft EIR; and
- Long-term air quality impacts associated with operation of the proposed residential uses, including emissions associated with new traffic sources (refer to Section 4.2, *Air Quality,* of this Draft EIR).

<u>Biological Resources</u>

- Impacts on wildlife corridors (refer to Section 4.3, *Biological Resources,* of this Draft EIR);
- Impacts on streams and drainages (refer to Section 4.3, *Biological Resources,* and Section 4.8, *Hydrology and Water Quality*, of this Draft EIR);

- Impacts on sensitive plant and animal species (refer to Section 4.3, Biological Resources, of this Draft EIR);
- Impacts on nocturnal habitat from nighttime lighting (refer to Section 4.3, *Biological Resources*, of this Draft EIR);
- Impacts regarding wildlife-human conflicts (refer to Section 4.3, *Biological Resources,* of this Draft EIR);
- Impacts on nesting birds (refer to Section 4.3, *Biological Resources,* of this Draft EIR);
- Impacts on sensitive plant communities (refer to Section 4.3, *Biological Resources,* of this Draft EIR);
- Impacts on wetlands (refer to Section 4.3, *Biological Resources*, of this Draft EIR); and
- Impacts on existing wildlife habitat (refer to Section 4.3, *Biological Resources*, of this Draft EIR).

Cultural Resources

- Impacts on previously known and uncovered cultural resources, including archaeological and paleontological resources (refer to Section 4.4, *Cultural Resources,* of this Draft EIR).

Geology and Soils

- Impacts regarding seismic hazards (refer to Section 4.5, *Geology and Soils*, of this Draft EIR); and
- Impacts regarding the potential for wildland fires (refer to Section 4.7, Hazards and Hazardous Materials, Section 4.12, Public Services - Fire Protection Services, and Section 4.14, Traffic and Circulation, of this Draft EIR).

Greenhouse Gases

- Impacts regarding greenhouse gas emissions (refer to Section 4.6, *Greenhouse Gas Emissions*, of this Draft EIR).

Hazards and Hazardous Materials

- Impacts regarding the potential for wildland fires (refer to Section 4.7, *Hazards and Hazardous Materials*, Section 4.12, *Public Services - Fire Protection Services*, and Section 4.14, *Traffic and Circulation*, of this Draft EIR);
- Fire prevention/fuel modification strategies associated with the Project (refer to Section 4.7, *Hazards and Hazardous Materials*, of this Draft EIR);
- Adequacy of site access and circulation (refer to Section 4.7, *Hazards and Hazardous Materials* and Section 4.12, *Traffic/Transportation*, of this Draft EIR); and
- Hazardous materials impacts associated with existing and historic on-site oil wells (refer to Section 4.7, Hazards and Hazardous Materials, of this Draft EIR).

Hydrology and Water Quality

- Impacts on surface and groundwater quality (refer to Section 4.8, *Hydrology and Water Quality*, of this Draft EIR);

- Adequacy of drainage facilities (refer to Section 4.8, *Hydrology and Water Quality*, of this Draft EIR); and
- Impacts regarding flooding (refer to Section 4.8, *Hydrology and Water Quality*, of this Draft EIR).

Land Use and Planning

- Project consistency with applicable County of Los Angeles zoning and General Plan land use designations for the site, as well as applicable policies (refer to Section 4.9, *Land Use and Planning*, of this Draft EIR).

Noise

- Project-related construction and operational (i.e., mobile equipment/traffic noise) noise impacts (refer to Section 4.10, *Noise*, of this Draft EIR).

Public Services

- Impacts on fire protection and emergency response services, including ability to maintain adequate response times (refer to Section 4.11, *Public Services*, of this Draft EIR);
- Impacts on parks (refer to Section 6.0, *Other Mandatory CEQA Considerations*, of this Draft EIR); and
- Impacts on school facilities (refer to Section 4.11, Public Services, of this Draft EIR).

Recreation

- Impacts on existing and planned trails near the Project area (refer to Section, 6.0, Other Mandatory CEQA Considerations, of this Draft EIR).

Transportation/Traffic

- Project-related traffic impacts along local streets and access points (refer to Section 4.12, *Traffic/Transportation*, of this Draft EIR);
- Construction-related traffic impacts to school facilities (refer to Section 4.12, *Traffic/Transportation*, of this Draft EIR);
- Need for new traffic lights associated with Project implementation (refer to Section 4.12, *Traffic/Transportation*, of this Draft EIR);
- Adequacy of site access and circulation (refer to Section 4.12, *Traffic/Transportation*, of this Draft EIR);
- Cumulative traffic impacts (refer to Section 4.12, *Traffic/Transportation*, of this Draft EIR); and
- Ability to maintain and provide adequate emergency access in event of wildfire, including number of access points and design of streets (refer to Section 4.7, Hazards and Hazardous Materials, and Section 4.12, Traffic/Transportation, of this Draft EIR).

Utilities and Service Systems

- Water supply impacts (refer to Section 6.0, *Other Mandatory CEQA Considerations*, of this Draft EIR);
- Impacts regarding adequacy of solid waste disposal services (refer to Section 6.0, *Other Mandatory CEQA Considerations*, of this Draft EIR);
- Adequacy of water and wastewater infrastructure and services (local and regional) to support the Project (refer to Section 6.0, *Other Mandatory CEQA Considerations*, of this Draft EIR); and
- Ability to maintain adequate fire flows (refer to Section 6.0, *Other Mandatory CEQA Considerations*, of this Draft EIR).

Alternatives

- Provide a meaningful range of alternatives to the Project (refer to Section 5.0, Alternatives, of this Draft EIR).

3. SUMMARY OF ENVIRONMENTAL IMPACTS

This section provides a summary of impacts, mitigation measures, and impacts after implementation of the mitigation measures associated with development of the Aidlin Hills Project. The summary is provided by environmental issue area below in **Table ES-1**, Summary *of Project Impacts and Mitigation Measures*.

Section 15126.2(b) of the *State CEQA Guidelines* requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. As shown in Table ES-1, and as analyzed in Section 4, *Environmental Impact Analysis*, of this EIR, the Project would not result in any significant, unavoidable impacts. Please refer to Section 4.0, *Environmental Impact Analysis*, for the Project Design Features (PDFs) that would be implemented by the Project relative to each environmental issue area. The PDFs, in many cases, would serve to reduce the extent of the Project's potential for environmental impacts.

Public Resources Code Section 21081 requires a public agency to make a finding that, with respect to each significant project effect, changes or alterations have been made to the project that mitigate or avoid significant project impacts. With respect to these changes, Section 21081.6 requires the public agency to adopt a reporting or monitoring program as to how these changes are met or compliance is achieved to ensure that significant impacts are avoided or mitigated. For the Project, the report or monitoring program will recite the mitigations, the compliance requirement, time frame for compliance, and the authority for determining compliance. Through this monitoring process, the public agency will determine the status and effect of the mitigation based on documentation provided on behalf of the Project applicant. The public agency, in this case the County of Los Angeles, will evaluative the status and effect of the mitigation and indicate either that mitigation requirements are being met or that mitigation measures require modification to achieved the identified level of mitigation.

4. ALTERNATIVES

The *State CEQA Guidelines* section 15126.6 requires an EIR to "describe a range of reasonable alternatives to the project, or to the location of the project, which will feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The *State CEQA Guidelines* direct that selection of alternatives be

guided by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.

As described in with a comparative analysis in Section 5, *Alternatives*, of this EIR, three alternatives were analyzed, the No Project/No Development Alternative, the "One Valley, One Vision" Alternative, "One Valley, One Vision" Density-Control Alternative, and the Reduced Density Alternative. In addition, an Alternative Location to the proposed Project site was considered but also rejected. Under the No Project Alternative, no improvements on the Project site would occur, and the site would remain in its existing vacant, undeveloped state. The No Project Alternative would result in no impact.

The "One Valley, One Vision" Alternative would voluntarily comply with the land use restrictions placed on the site as part of the Santa Clarita Valley Area Plan update. It would create up to 12 five-acre and eight 20-acre parcels with each lot's development potential up to 3.5 acres. The resulting 20-parcel subdivision would have a development footprint, inclusive of fuel modification, of approximately 70 acres, which would not be clustered. No provision for water storage tanks would be included in this Alternative and a secondary emergency access would not be needed or proposed. The "One Valley, One Vision" Alternative would have greater impacts on aesthetics, biological resources, and soil erosion than the proposed Project. This Alternative would have similar impacts on hydrology, based on the need for compliance with the same regulatory requirements. For all other environmental factors, this Alternative would have less impact than that of the Project.

The "One Valley, One Vision" Density-Control Alternative would comply with the land use categories placed on the site as part of the Santa Clarita Valley Area Plan update. It would create 20, 15,000-square foot parcels with each lot's development potential being approximately 0.5 acres. The resulting 20-parcel subdivision would have a development footprint, inclusive of fuel modification, of approximately 15 acres, which would be clustered with a common access street connecting to Verandah Court. No provision for water storage tanks would be included in this Alternative and a secondary emergency access would not be needed or proposed. The "One Valley, One Vision" Density-Control Alternative would have greater impacts only on the reliability of fire flow capacity than the proposed Project. This Alternative would have similar impacts on hydrology, based on the need for compliance with the same regulatory requirements. For all other environmental factors, this Alternative would have less impact than that of the Project.

The Reduced Density Alternative would reduce the overall development intensity by 26 percent relative to the proposed Project and would allow for a maximum of 75 single-family dwellings, while excluding the emergency secondary fire access road. Lot size would be comparable to that of the proposed Project, ranging from 6,000 to 15,000 square feet and averaging about 10,000 square feet per lot. Both natural and landscaped open space would amount to approximately 200 acres. Total grading would amount to about 1,000,000 cubic yards of cut with an equal amount of fill materials. Like the proposed Project, this Alternative would be as a density-controlled development requiring a conditional use permit. The Reduced Density Alternative would have lesser impacts for all environmental factors than the proposed Project with the exception of hazards/hazardous materials and land use.

Environmentally Superior Alternative

Section 15126.6(e)(2) of the *State CEQA Guidelines* indicates that an analysis of alternatives, including the "No Project Alternative," to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR. The *State CEQA Guidelines* also state that should it be determined that the No Project Alternative is the environmentally superior alternative, the EIR shall identify another

environmentally superior alternative among the remaining alternatives. With respect to identifying an environmentally superior alternative among those analyzed in this EIR, the range of feasible alternatives to be considered include the "One Valley, One Vision" Alternative, "One Valley, One Vision" Density-Control Alternative and the Reduced Density Alternative, as described above, in addition to the No Project/No Development Alternative. Based on the evaluation of impacts presented in Section 5.0, the "One Valley, One Vision" Density-Control Alternative is determined to be the environmentally superior alternative. As summarized in Table 5-1, No Project/No Development Alternative would result in no impact. The "One Valley, One Vision" Density-Control Alternative would not meet the objectives of incorporating multiple fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards, or to construct a significant number of new housing units to assist in providing for the County housing needs.

Table ES-1

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
Aesthetics			
SCENIC VISTA/VISUAL CHARACTER AND VISUAL QUALITY – Project implementation would alter the views of and across the Project site with the development of the proposed residential uses, which will be permanently changed from a natural environment to a suburban, built environment. However, no significant scenic views from surrounding areas, including riding or hiking trails would be substantially diminished or obstructed by the Project. Further, the Project would be visually consistent and compatible with the single-family residential uses to the east of the Project site. As such, the Project would permanently change but not substantially degrade the existing visual character or quality of the site and its surroundings. Impacts would be less than significant in these regards.	Less Than Significant Impact	Construction Impacts No mitigation measures are necessary. Operational Impacts – Visual Character/Quality No mitigation measures are necessary. Operational Impacts – Views No mitigation measures are necessary.	Less Than Significant Impact
SCENIC RESOURCES - Project implementation would not substantially damage scenic resources or other locally recognized desirable aesthetic natural features within a scenic highway and less than significant impact would occur in this regard.	Less Than Significant Impact	No mitigation measures are necessary.	No Impact
LIGHT AND GLARE - Implementation of the Project would result in new lighting similar to that of the adjacent single-family residential neighborhoods. The Project would create new sources of light or glare but these would not adversely affect day or nighttime views in the area because of intervening topography and Rural Outdoor Lighting compliance. Thus, light and glare impacts would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
Air Quality			
AIR QUALITY PLAN CONSISTENCY - Although the Project would result in construction and operational air quality impacts, Project development would not conflict with applicable policies and growth projections in applicable air quality plan. Therefore, the impact of the Project with respect to air quality plans would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
AIR QUALITY STANDARDS - Because the Project's peak day NOx emissions during construction exceed the applicable SCAQMD daily emissions threshold, the Project may cause or contribute to a violation of ambient air quality standards. Impacts regarding remaining criteria pollutants (VOC, CO, SO_2, PM_{10}, and $PM_{2.5}$) would be below the emissions thresholds and would be less than significant during construction. Operation of the Project would not exceed the daily emissions threshold for any regulated criteria pollutant and thus would not violate air quality standards or contribute substantially to an existing or projected air quality violation. Therefore, impacts related to regional emissions from construction would be potentially significant and impacts from operation of the Project would be less than significant.	Potentially Significant Impact	Regional Construction **Mitigation Measure 4.2-1** Prior to the issuance of grading permits, the Permittee shall submit evidence to the County Department of Regional Planning that off-road diesel-powered heavy-duty construction equipment greater than 50 horsepower used during grading activities of Project construction meet or exceed the CARB and USEPA Tier 3 off-road emissions standards for heavy-duty equipment. **Mitigation Measure 4.2-2** Prior to the issuance of grading permits, the Permittee shall submit evidence to the County Department of Regional Planning that all heavy-duty diesel-powered equipment in use and/or refueled at the Project site shall use the most current grade of ultra-low sulfur diesel (ULSD) fuel approved by CARB and available in the South Coast Air Basin. **Mitigation Measure 4.2-3** Prior to the issuance of grading permits, the Permittee shall submit evidence, such as contractor agreement, training, or instructional materials, to the County Department of Regional Planning that truck and equipment idling and queuing time shall be limited	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		to five minutes or less, when equipment is not in active use, in accordance with the CARB Airborne Toxic Control Measure. **Mitigation Measure 4.2-4** The Permittee shall utilize construction equipment having lowest appropriate horsepower rating for the intended job. The Project Contractor shall be responsible for field inspection sign-off and submittal of compliance certification reports to the County Department of Regional Planning at a frequency determined by the County. **Mitigation Measure 4.2-5** The Permittee shall utilize construction equipment operating on-site that is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules. The Project Contractor shall be responsible for field inspection sign-off and submittal of maintenance documentation to the County Department of Regional Planning at a frequency determined by the County. **Mitigation Measure 4.2-6** The Permittee shall prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices. This prohibition shall be specified in contractor agreements and subject to routine maintenance checks or inspections. The Project Contractor shall be responsible for field inspection sign-off and submittal of compliance certification reports to the County Department of Regional Planning at a frequency determined by the County.	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		Mitigation Measure 4.2-7 The use of all construction equipment shall be suspended during a second-stage smog alert in the immediate vicinity of the Project site (e.g., smog alert affecting the Santa Clarita Valley). Regional Operations No mitigation measures are necessary.	
CUMULATIVELY CONSIDERABLE INCREASE OF ANY NONATTAINMENT CRITERIA POLLUTANT - Construction of the Project would not result in emissions that exceed the VOC, PM_{10}, and $PM_{2.5}$, but would result in emissions that potentially exceed the threshold for NO_X. Therefore, construction would result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment and impacts would be potentially significant. Operation of the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is nonattainment under applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold for ozone precursors). Therefore, operational impacts would be less than significant.	Potentially Significant Impact	Construction Refer to Mitigation Measures 4.2-1 to 4.2-7 above. No additional mitigation measures are necessary. Operations No mitigation measures are necessary.	Less Than Significant Impact
EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATION - On-site construction emissions from the Project would not exceed the localized significance thresholds for CO, PM_{10}, and $PM_{2.5}$, but would potentially exceed the thresholds for NO_X. Therefore, construction would result in potentially significant localized impacts for NO_X. Operation of the Project would not expose sensitive receptors to	Potentially Significant Impact	Localized Construction Refer to Mitigation Measures 4.2-1 to 4.2-7 above. No additional mitigation measures are necessary. Localized Operations No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
substantial pollutant concentrations, as operational emissions would not exceed the localized significance thresholds for NO_X, CO, PM_{10}, and $PM_{2.5}$. Therefore, operation of the Project would result in less than significant localized impacts. The Project would not contribute to the formation of CO hotspots and impacts would be less than significant. The Project would not result in substantial toxic air contaminant emissions and would result in less than significant impacts.		Toxic Air Contaminants No mitigation measures are necessary. CO Hotspots No mitigation measures are necessary.	
ODORS - The Project does not include any uses identified to be a source of odors. Therefore, the Project will result in no impacts with respect to odors affecting a substantial number of people.	No Impact	Construction No mitigation measures are necessary. Operations No mitigation measures are necessary.	No Impact
Biological Resources			
SENSITIVE PLANT AND WILDLIFE SPECIES - Implementation of the Project could result in a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status species, threatened or endangered in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Wildlife Service. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measure would reduce potentially significant impacts to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.3-1** The loss of slender and Plummer's mariposa lily individuals from developed areas of the Project site shall be mitigated by the salvage and transplantation of bulbs to appropriate habitat areas in undeveloped portions of the Project site, prior to the issuance of a grading permit. A pre-construction survey during the peak flowering period for the slender mariposa lily and Plummer's mariposa lily (March to June) shall be conducted by a qualified biologist in the spring prior to construction. The location of each plant observed within the impact area shall be clearly delineated with brightly colored flagging as well as GPS coordinates recorded. Plants within the proposed development footprint and likely to be impacted shall be mitigated by bulb collection	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		(during summer) and subsequent out-planting and propagation. A portion of the bulbs (no greater than 50%) shall then be placed into a suitable mitigation site in the undeveloped portion of the Project site or at an approved off-site location. A qualified biologist shall be selected by the Project Applicant to prepare and implement the mitigation plan. The detailed mariposa lily mitigation and monitoring plan shall include, at a minimum, the following requirements, and be approved by the County of Los Angeles prior to issuance of a grading permit: 1. The seeds shall be collected from existing plants and cultivated in nursery until they are ready for transplant into mitigation area at the appropriate time of year or stored for direct seeding in the approved mitigation areas. 2. The salvaged bulbs can be immediately transplanted at appropriate time of year to appropriate receptor sites within the Project Area that support suitable habitat matching the habitat characteristics from which the bulbs were collected. 3. Mitigation areas used for bulb transplanting and seed sowing shall be as dedicated open space, with the location of the mitigation areas to be selected based upon the habitat quality and suitability. The qualified biologist will undertake pre-ground disturbance flowering season surveys to determine these suitable mitigation areas of comparable soils, slope exposure and vegetation cover.	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		4. Mitigation shall be at a minimum of a 2:1 mitigation-to-impact ratio per individual plant, i.e., two replacement plants provided for every plant that is taken. 5. Monitoring of the mitigation areas shall be conducted for five years or until performance standards are achieved—whichever is longer. Monitoring shall be conducted quarterly through the first year and annually thereafter for a total period of at least five years. Monitoring shall address issues of plant establishment and vigor, herbivory, and competition by non-native weedy plants. 6. Performance standards shall be described to measure mitigation success by the end of the five-year monitoring program, and contingency measures shall be incorporated to be pursued in the event that performance standards prove to be untenable. **Mitigation Measure 4.3-2** The Project design shall dedicate 165 acres as natural open space to provide habitat for western spadefoot, silvery legless lizard, coastal whiptail, coast horned lizard, rosy boa, golden eagle, Cooper's hawk (foraging), Swainson's hawk (foraging), white-tailed kite (foraging), prairie falcon, turkey vulture, lesser nighthawk, greater roadrunner, hairy woodpecker, mountain bluebird (foraging), loggerhead shrike (foraging), California horned lark, coastal California gnatcatcher, western meadowlark, southern California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow,	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		spotted bat, pallid bat, Townsend's bat, western mastiff bat, hoary bat, San Diego black-tailed jackrabbit, southern grasshopper mouse and San Diego desert woodrat. **Mitigation Measure 4.3-3** Prior to the issuance of a grading permit for ground disturbance, construction, or site preparation activities, the applicant shall retain the services of a qualified biologist to conduct pre-construction surveys for western spadefoot within all portions of the Project site containing suitable breeding habitat. Surveys shall be conducted during a time of year when the species is most likely to be detected (e.g., during a normal or greater rain year while rain pools are present and temperatures are suitable for spadefoot activity). If western spadefoot is identified on the Project site, western spadefoot habitat shall be created within suitable natural sites on the Project site outside the proposed development envelope under the direct supervision of the qualified biologist. The amount of occupied breeding habitat to be impacted by the Project shall be replaced at a 2:1 ratio. The actual relocation site design and location shall be approved by CDFW. The location shall be in suitable habitat, including suitable uplands, as far away as is feasible from any of the homes and roads to be built. The relocation ponds shall be designed such that they only support standing water for several weeks following seasonal rains. The biologist shall conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in the	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		identified/created relocation ponds described above. Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits. **Mitigation Measure 4.3-4** Prior to ground disturbance or grading activities, the applicant shall develop a relocation plan for rosy boa, coast horned lizard, silvery legless lizard, and coastal whiptail. The Plan shall include the timing and location of the surveys (based upon accepted protocols) that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the more appropriate habitats within the dedicated open space that are most appropriate for each species; the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recordation of the species and number of the animals relocated. The Plan shall be submitted to the County for its review and approval 60 days prior to any scheduled ground disturbing activities within potentially occupied habitat. Thirty days prior to construction activities, qualified biologists shall conduct surveys to capture and relocate individual rosy boa, coast horned lizard, silvery legless lizard, and coastal whiptail per the County-approved relocation plan in order to avoid or minimize take of these special status species. The plan shall require a minimum of three (3) surveys conducted during the time of year/day when each	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		species is most likely to be observed. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February), the surveys shall be conducted prior to this period and exclusion fencing shall be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. During the construction period, clearance surveys for special-status reptiles shall be conducted by a qualified biologist prior to the initiation of construction each day. Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits. **Mitigation Measure 4.3-5** Thirty days prior to construction activities, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit. If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the offspring-rearing season (February 15 through July 1). Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		animals shall only occur with the proper scientific collection and handling permits. **Mitigation Measure 4.3-6** Thirty days prior to construction activities, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego desert woodrat. If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone, a construction fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified biologist. Clearing and construction within the fenced area shall be postponed or halted until young have left the nest. The biologist shall be present during those periods when disturbance activities will occur near active nest areas to avoid inadvertent impacts to these nests. Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits. **Mitigation Measure 4.3-7** Where nest avoidance is not possible, the project biologist shall clear vegetation from immediately surrounding active nests followed by a night without further disturbance to allow woodrats to vacate the nest. Preference will be given to non breeding-season destruction of the nests (May through October) and relocation of adults shall target undeveloped areas of the project, including salvage of nest-building material—rocks, sticks, etc. Each occupied nest	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		shall subsequently be gently disturbed by a qualified wildlife biologist in possession of a scientific collecting permit to entice any remaining woodrats to leave the nest and seek refuge outside the Project construction area. The stick nests shall be carefully removed from the Project construction area and be placed near a suitable vegetation or rocky substrate similar to original nest location. The project biologist shall document all woodrat nests moved and provide a written report to the County. **Mitigation Measure 4.3-8** The project applicant shall be responsible to avoid the direct loss of non-game animals, including bats, during construction activities. Activities that could result in disturbance impacting bat maternity or hibernation roosts shall be scheduled to avoid sensitive periods (April 1 to September 15 for maternity roosts and December 1 to March 31 for hibernation roosts). Where potential roost sites must be removed, a qualified biologist shall conduct a pre-construction survey to identify those structures and habitats proposed for disturbance that could provide bat hibernacula, nursery colony roosting habitat for bats or subterranean burrows for wildlife. Each structure or suitable habitat area identified as potentially supporting an active bat roost or burrow shall be closely inspected by the biologist no greater than seven (7) days prior to disturbance to more precisely determine the presence or absence of roosting bats or non-game wildlife. To avoid the potential direct loss of special-status bat species from disturbance to rocky cliff crevices that may provide maternity roost habitat,	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		the following steps shall be taken: 1. To the extent feasible, disturbance to suitable bat roosting habitat shall be scheduled from September 16 – November 30, outside of the maternity roosting and hibernation seasons. The most suitable bat roosting habitats on the Project site are the rocky outcrops at the southern boundary (approximately 800 feet distant from the proposed construction area) and within oak and walnut trees. A bat specialist shall conduct a pre-construction survey of the development footprint and surrounding 200 feet for possible bat roosting habitat within these areas. If the bat specialist determines that no roosting bats are present within the survey area, no further action shall be necessary in regard to roosting bat species (both special-status and non special-status, non-game species). 2. If maternity or hibernation roosts are found, a 200-foot buffer around maternity roosts within or adjacent to the development footprint shall be left in place until the end of the maternity or hibernation season, whereupon a qualified bat specialist must determine that the bats are no longer hibernating or that young have become volant before the buffer may be removed. 3. If bat roosts are impacted during construction, the project applicant will provide replacement roosts within similar habitat and with a gap no greater than 3.8 centimeters and interior surface comparable to that of the original roost. The replacement roost should be swabbed with bat guano and urine collected from the original roost.	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		4. The bat specialist shall document all survey results and prepare a summary report to the County. If Townsend's big-eared bat is detected during pre-construction surveys, all construction-related activity shall be halted immediately and CDFW shall be notified. Work may only resume subsequent to CDFW approval.	
SENSITIVE NATURAL COMMUNITIES - Implementation of the Project could result in substantial adverse effect on sensitive natural communities. However, compliance with applicable regulatory requirements and implementation of the prescribed mitigation measure would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.3-9** Impacts to sensitive plant communities (i.e., Thick-leaved Yerba Santa Scrub, Giant Wild Rye Grassland, California Bush Sunflower Scrub, Toyon Chaparral, and Foothill Ash Scrub) shall be mitigated using one or more of the following: 1. On-site restoration or enhancement of sensitive plant communities (e.g., transplantation, seeding, or planting of representative plant community species; salvage/dispersal of duff and seed bank) at a ratio no less than 1:1 for temporary impacts and 2:1 for permanent impacts, subject to the approval of the County of Los Angeles. 2. Purchase of mitigation credits at an agency-approved off-site mitigation bank within Los Angeles County or in-lieu fee program at a ratio no less than 1:1, subject to the approval of the County of Los Angeles. If mitigation is to occur on-site or off-site, a habitat mitigation and monitoring plan shall be prepared and approved by the County Biologist prior to the issuance of a grading permit. The plan shall focus on the creation of equivalent habitats within disturbed habitat areas of the project site or off-site. In addition, the plan shall provide details as to the	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		implementation of the plan, maintenance, and future monitoring including the following components: 1. Description of existing sensitive habitats on the Project site; 2. Summary of permanent impacts to sensitive communities based on approved Project design; 3. Proposed location for mitigation areas, either on-site or off-site, with description of existing conditions prior to mitigation implementation; 4. Detailed description of restoration or enhancement goals; 5. Description of implementation schedule, site preparation, erosion control measures, planting plans, and plant materials; 6. Provisions for mitigation site maintenance and control on non-native invasive plants; and 7. Monitoring plan, including performance standards, adaptive management measures, and monitoring reporting to the County of Los Angeles.	
WETLANDS AND JURISDICTIONAL RESOURCES - Implementation of the Project could result in substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means. However, compliance with applicable regulatory requirements and implementation of the prescribed mitigation measure would reduce potentially significant impacts in these regards to a less than	Potentially Significant Impact	**Mitigation Measure 4.3-10** Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the Project applicant shall obtain a CWA Section 404 permit from the USACE, a CWA Section 401 permit from the RWQCB, and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the CDFW, where the project warrants. The following would	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
significant level.		be incorporated into the permitting, subject to approval by the regulatory agencies: 1. On- or off-site restoration or enhancement of USACE/RWQCB jurisdictional "waters of the U.S."/"waters of the State" and wetlands at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program within Los Angeles County or within the same watershed acceptable to the County, where the location has comparable ecological parameters such as habitat types, species mix and elevational range. 2. On- or off-site restoration or enhancement of CDFW jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program within Los Angeles County or within the same watershed acceptable to the County, where the location has comparable ecological parameters such as habitat types, species mix and elevational range.	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
NESTING AND MIGRATORY BIRDS - Implementation of the Project would not interfere with the regional movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. However, the Project could impede the use of native wildlife nursery sites or disturb or destroy active bird nests. Compliance with applicable regulatory requirements and implementation of the prescribed mitigation measure would reduce potentially significant impacts in these regards to a less than significant level.	Less Than Significant Impact	**Mitigation Measure 4.3-11** Prior to the issuance of any grading permit that would require removal of potential habitat for raptor and songbird nests, the Project applicant shall demonstrate to the satisfaction of the County of Los Angeles that either of the following have been or will be accomplished: 1. Proposed project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season which generally runs from February 1-August 31 (as early as January 1 for some raptors) to avoid take of birds or their eggs. Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86), and includes take of eggs or young resulting from disturbances which cause abandonment of active nests. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted. 2. If avoidance of the avian breeding season is not feasible, a qualified biologist with experience in conducting breeding bird surveys shall conduct weekly bird surveys beginning thirty days prior to the initiation of project activities, to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 500 feet of the disturbance area. The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		initiation of project activities. If a protected native bird is found, the project proponent should delay all project activities within 300 feet of on- and off-site suitable nesting habitat (within 500 feet for suitable raptor nesting habitat) until August 31. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptor nests) or as determined by a qualified biological monitor, must be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Flagging, stakes, or construction fencing should be used to demarcate the inside boundary of the buffer of 300 feet (or 500 feet) between the project activities and the nest. Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. The project proponent should provide the Department of Regional Planning the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds. 3. If the biological monitor determines that a narrower buffer between the project activities and observed active nests is warranted, he/she should submit a written explanation as to why (e.g., species-specific information; ambient conditions and birds' habituation to them; and the terrain, vegetation, and birds' lines of sight between the project activities and the nest and foraging areas) to the Department of Regional Planning and, upon request, the CDFW. Based on the submitted	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		information, the Department of Regional Planning (and the CDFW, if the CDFW requests) will determine whether to allow a narrower buffer. 4. The biological monitor shall be present on site during all grubbing and clearing of vegetation to ensure that these activities remain within the project footprint (i.e., outside the demarcated buffer) and that the flagging/stakes/fencing is being maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The biological monitor shall send weekly monitoring reports to the Department of Regional Planning during the grubbing and clearing of vegetation, and shall notify the Department of Regional Planning immediately if project activities damage active avian nests.	
PROTECTED TREES - Implementation of the Project could result in substantial adverse effect on protected oak tree resources. However, compliance with applicable local ordinance requirements and implementation of the prescribed mitigation measure would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.3-12** The Permittee shall mitigate through a two to one mitigation to impact ratio for the removal of one coast live oak trees. Each replacement tree shall be at least a 15-gallon size specimen and measure at least one inch in diameter one foot above the base. The Permittee shall coordinate with the County Forester and Department of Regional Planning prior to removing of the oak tree on the acceptable location for the replacement planting location. The Permittee shall comply with the conditions of the approved Oak Tree Permit 00-136.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
HABITAT CONSERVATION PLANS - The Project does not occur within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the Project will result in no impacts with respect to habitat conservation plan conflicts.	No Impact	No mitigation measures are necessary.	No Impact
Cultural Resources			
HISTORICAL RESOURCES - Implementation of the Project would not cause a substantial adverse change in the significant of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines. This impact is considered less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
ARCHAEOLOGICAL RESOURCES - Implementation of the Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines. However, implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.4-1** The Permittee shall retain a qualified archaeological monitor who shall be present during construction excavations (e.g., grading, trenching, or clearing/grubbing) in areas where the Larinan Apiary structures once existed in the northern portion of the Project site. Other areas outside the boundaries of the Larinan Apiary structures shall not be monitored. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring may be reduced to part-time inspections if determined adequate by the archaeological monitor. **Mitigation Measure 4.4-2** In the event that archaeological resources are unearthed, ground-	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be evaluated by a qualified archaeologist. The Permittee shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. Treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. The Permittee, in consultation with the archaeologist, shall designate repositories in the event that archaeological material is recovered. **Mitigation Measure 4.4-3** The archaeological monitor shall prepare a final report at the conclusion of archaeological monitoring. The report shall be submitted by the Permittee to the County, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures. The report shall include a description of resources unearthed, if any, treatment of the resources, and evaluation of the resources with respect to the California Register of Historical Resources. **Mitigation Measure 4.4-4** The Permittee shall retain a Native American tribal monitor from the Fernandeño Tataviam group who shall be present	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		during construction excavations (e.g., grading, trenching, or clearing/grubbing) associated with the proposed Project. The frequency of monitoring shall be determined by the tribal monitor, who shall take into account the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of prehistoric archaeological resources encountered. Full-time tribal monitoring may be reduced to part-time inspections if determined adequate by the Native American monitor. If prehistoric archaeological resources are encountered during construction, the Native American monitor shall advise the Permittee and archaeologist regarding the treatment and curation of the resources as described in Mitigation Measure 4.4-2. As discussed Mitigation Measure 4.4-2, the archaeological monitor shall have the authority to halt or divert ground-disturbing activities away from the vicinity of the find so that it can be evaluated and a subsequent treatment plan be prepared and implemented. The tribal monitor shall advise the archaeological monitor regarding decisions to halt or divert work from the vicinity of a find.	
HUMAN REMAINS - Implementation of the Project could disturb human remains, including those interred outside of formal cemeteries. However, implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.4-5** If human remains are unearthed during implementation of the Project, the Permittee hall comply with State Health and Safety Code Section 7050.5. The Permittee shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the landowner, inspect the site of the discovery of the Native American remains and may recommend to the landowner means for treating or disposing, with appropriate dignity, the human remains and any associated funerary objects. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and cultural items associated with Native American burials. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment. If reburial is recommended, the MLD shall file a record of the reburial with the NAHC and the Project archaeologist shall file a record of the reburial with the CHRIS-SCIC.	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance. A record of the reburial shall be filed with the NAHC and the CHRIS-SCCIC.	
PALEONTOLOGICAL RESOURCES/UNIQUE GEOLOGIC FEATURE- Implementation of the Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. However, implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.4-6** A qualified Paleontologist shall be retained to develop and implement a paleontological monitoring program for construction excavations that would encounter older Quaternary alluvium or deposits associated with Pico Formation or Towsley Formation. The Paleontologist shall attend a pre-grading/excavation meeting to discuss a paleontological monitoring program. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. The qualified Paleontologist shall supervise a paleontological monitor who shall be present at such times as required by the Paleontologist during construction excavations into older Quaternary alluvium, or deposits associated with Pico Formation or Towsley Formation. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		dry screened sediment samples of promising horizons for smaller fossil remains. The frequency of monitoring inspections shall be determined by the Paleontologist and shall be based on the rate of excavation and grading activities, the materials being excavated, and the depth of excavation, and if found, the abundance and type of fossils encountered. **Mitigation Measure 4.4-7** If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the Paleontologist's discretion and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository. **Mitigation Measure 4.4-8** The paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		description of the fossils collected and their significance. The report shall be submitted by the Permittee to the lead agency and the Natural History Museum of Los Angeles County, and other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.	
Geology and Soils			
SEISMIC AND GEOLOGIC STABILITY HAZARDS - Implementation of the Project could expose people or structures to fault rupture, strong seismic ground shaking, strong seismic-related ground failure, liquefaction, later spreading, landslides and other ground failure hazards. However, compliance with applicable regulatory requirements and incorporation of the recommendations in the Geologic Evaluation and 100-Scale Plan Review would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	Fault Rupture No mitigation measures are necessary. Seismic Ground Shaking No mitigation measures are necessary. Ground Failure No mitigation measures are necessary. Landslides/Slope Stability No mitigation measures are necessary. Soil Erosion or Loss of Topsoil No mitigation measures are necessary. Expansive Soils No mitigation measures are necessary.	Less Than Significant Impact
SOIL EROSION OR THE LOSS OF TOPSOIL - Implementation of the Project could result in substantial soil erosion or the loss of topsoil. However, compliance with applicable regulatory requirements would ensure impacts in these regards are less than significant.	Potentially Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
EXPANSIVE SOILS - Implementation of the Project could expose people or property to substantial risks associated with expansive soils. However, compliance with applicable regulatory requirements and incorporation of recommendations in the Geotechnical Evaluation and the 100-Scale Plan Review would reduce such impacts to a less than significant level.	Potentially Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
ONSITE WASTEWATER TREATMENT SYSTEMS - Implementation of the Project would not result in soils incapable of adequately supporting the use of onsite wastewater treatment systems as the Project would not involve the use of septic tanks or alternative wastewater disposal systems.	No Impact	No mitigation measures are necessary.	No Impact
HILLSIDE MANAGEMENT AREA ORDINANCE/COUNTY GENERAL PLAN CONSERVATION AND OPEN SPACE ELEMENT - Implementation of the Project would not conflict with the Hillside Management Area Ordinance or hillside design standards in the County General Plan.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
Greenhouse Gas Emissions			
GENERATION OF GHGs - The Project would generate greenhouse gas emissions that would be less than the thresholds of significance. As a result, the Project would not, either directly or indirectly, result in GHG emissions that would have a significant impact on the environment and impacts would be less than significant.	Less Than Significant Impact	Construction No mitigation measures are necessary. Operations No mitigation measures are necessary.	Less Than Significant Impact
CONSISTENCY WITH APPLICABLE GHG PLANS - The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
purpose of reducing the emissions of greenhouse gases. Therefore, the construction and operation of the Project would result in a less than significant impact.			
Hazardous Materials			
HAZARDOUS MATERIALS - Implementation of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact is considered less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
RISK OF UPSET - Implementation of the Project could 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. However, compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.7-1** Prior to grading for development, the Permittee shall comply with the proper abandonment standards of the State of California Division of Oil, Gas and Geothermal Resources (DOGGR). A DOGGR monitor shall be present on site during all abandonment activities of the on-site oil wells. **Mitigation Measure 4.7-2** Prior to the issuance of a grading permit for the Project, the Permittee shall submit a community health and safety plan, worker health and safety plan, and the Soils Management Plan (SMP) prepared by a California-licensed professional geologist to the LACFD and/or DTSC for review, approval, and implementation by the Permittee. The SMP would state if the soil shall require special handling either in advance of grading activating or concurrent with grading work and describe various remedial options (including off-site disposal or on-site reuse). The SMP shall include protocols for screening of soil exhibiting impacts; handling and/or disposal of the soils impacted with petroleum hydrocarbon, title 22 metals, volatile organic compounds (VOCs), semi-	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		volatile organic compounds (SVOCs), organochlorine pesticides (OCPs), and polychlorinated biphenyls (PCBs); stockpile management; vapor suppression and dust control; surface water protection; soil stockpile sampling; sampling frequence; and exporting of contaminated soils.	
HAZARDOUS EMISSIONS OR MATERIALS - Implementation of the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses. This impact is considered less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
EXISTING ON-SITE HAZARDS - Although the Project would be located on a site that includes inactive oil wells, implementation of the applicable PDFs and the prescribed mitigation measure would ensure that no significant hazards occur to the public or the environment.	Potentially Significant Impact	Refer to Mitigation Measures 4.7-1. No additional mitigation measures are necessary.	Less Than Significant Impact
PUBLIC AIRPORT HAZARD - Implementation of the Project would not result in a safety hazard for people residing or working in the Project area and 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 such that no significant hazard would occur to the public or the environment.	No Impact	No mitigation measures are necessary.	No Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
PRIVATE AIRPORT HAZARD - Implementation of the Project would not result in a safety hazard for people residing or working in the Project area and within a private airstrip such that no significant hazard would occur to the public or the environment.	No Impact	No mitigation measures are necessary.	No Impact
EMERGENCY RESPONSE PLAN - Implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact is considered less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
WILDLAND FIRES - Implementation of the Project could expose people or structures to a significant risk of loss, injury or death involving wildland fires, because the Project is located within a Very High Fire Hazard Severity Zones (Zone 4), within a high fire hazard area with inadequate access, within an area with inadequate water and pressure to meet fire flow standards, or within proximity to land uses that have the potential for dangerous fire hazard. However, compliance with applicable regulatory requirements and implementation of the project design features and prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	**Mitigation Measure 4.7-3** Prior to Tentative Map recordation, a Preliminary Water System Design Report or equivalent from the Valencia Water Company describing the water supply system, pump system, and fire flow shall be submitted and approved by the LACFD. The Preliminary Water System Design Report shall list the design features that would ensure the required fire flow during a major wildfire incident. The Permittee shall be responsible for funding any necessary water infrastructure upgrades/improvements to meet fire flow requirements.	Less Than Significant Impact
RESIDUAL SOIL TOXICITY - Implementation of the Project would not occur on a site with previous uses that indicate residual soil toxicity of the site or within two miles downstream of a known groundwater contamination source within the same watershed. Thus, less than significant impacts would occur in this regard.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
Hydrology and Water Quality			
WATER QUALITY - Construction and operation of the Project would comply with all applicable regulatory requirements regarding water quality. Compliance with applicable regulatory requirements and implementation of the project design features, including BMPs as part of the Project's SWPPP, would ensure that construction and operational water quality impacts are less than significant.	Less Than Significant Impact	Construction Water Quality No mitigation measures are necessary. Operational Water Quality No mitigation measures are necessary. Mosquito and Vector Habitat No mitigation measures are necessary.	Less Than Significant Impact
GROUNDWATER SUPPLIES - The Project would be served by a municipal water supply. The additional impervious surfaces created by the Project would not result in a substantial change in groundwater infiltration rates. Furthermore, there would be no noticeable change in any aquifer volume or a lowering of the local groundwater table due to a change in groundwater recharge rates as a result of Project implementation. Thus, the Project would have a less than significant impact with respect to groundwater supplies or groundwater recharge.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
DRAINAGE PATTERNS AND STORMWATER DRAINAGE SYSTEM - The Project would be designed to maintain existing drainage patterns of the site and area. Post development runoff would be consistent with applicable regulatory requirements such that the post-project site would not result in significant hydrology impacts downstream such that flooding or erosion would occur on- or off-site. Furthermore, the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage. Compliance with applicable regulatory requirements and implementation of the project design features and	Potentially Significant Impact	**Mitigation Measure 4.8-1** Turf Reinforcing Mat (TRM) shall be placed along any grading within the on-site Pico Canyon and Wickham Canyon Creek reaches where the floodplain would run along the slopes adjacent to the drainage courses.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
mitigation measures would ensure that potentially significant impacts regarding changes in drainage patterns and stormwater flows are less than significant.			
ONSITE WASTEWATER SYSTEMS - The Project would not include onsite wastewater systems (i.e. septic systems) that could result in related groundwater or other water-quality impacts. No impacts would occur in this regard.	No Impact	No mitigation measures are necessary.	No Impact
FLOOD HAZARDS - Implementation of the Project would not result in a safety hazard for people residing or working in the Project area and 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 such that no significant hazard would occur to the public or the environment.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
SEICHE, TSUNAMI AND MUDFLOW HAZARDS - Implementation of the Project would not place structures in areas subject to significant inundation by seiche, tsunami, or mudflow hazards. A less than significant impact would occur in this regard.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
Land Use and Planning			
PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY - The Project would not divide an established community. As such, no impacts would occur in this regard.	No Impact	No mitigation measures are necessary.	No Impact
CONSISTENCY WITH APPLICABLE COUNTY PLANS - The Project would be consistent with adopted regulatory policies in force at the time of the submittal of the Project application, as well as guidance documents and regulations governing the allowable land uses on the	Less Than Significant Impact	Los Angeles County General Plan 2035 No mitigation measures are necessary. Santa Clara Valley Area Plan	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
Project site. The Project would also be compatible with existing land uses in the Project vicinity. Land use impacts with respect to applicable plans would be less than significant.		No mitigation measures are necessary. Southern California Association of Governments 2012 – 2035 Regional Transportation Plan and Sustainable Communities Strategy No mitigation measures are necessary.	
CONSISTENCY WITH COUNTY ZONING ORDINANCE - The proposed land uses would be consistent with the provisions of the County zoning ordinance, which allow for single-family residential uses within the A-2-2 zone designation and density-controlled development under a CUP defined in Section 22.56.205. Impacts with respect to this threshold would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
CONFLICT WITH HILLSIDE MANAGEMENT CRITERIA, SEA CONFORMANCE CRITERIA, OR OTHER APPLICABLE LAND USE CRITERIA - The Project would exceed the density threshold under Hillside Management criteria by 6 residential units. In addition, the Project would require the removal of one oak tree. With an approved CUP to allow the transfer of 6 units from the U-2 to the HM designation, approval of a grading plan for Projects exceeding 10,000 cy, and approval of an Oak Tree Permit, in accordance with County Code requirements, the Project would be consistent with Hillside Management density criteria and the County's Oak Tree Ordinance. SEA conformance criteria are not applicable to the Project site under the 1990 Santa Clarita Valley Area Plan. Because Project would be subject to CUP Hillside Management and grading requirements, as well as Oak Tree Permit requirements set forth in the County Code, land use impacts with respect to this threshold would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
Noise			
ON-SITE CONSTRUCTION NOISE - Noise generated by on-site construction would exceed the significance threshold at nearby residential uses during the grading phase only. Therefore, impacts would be significant without implementation of mitigation measures.	Potentially Significant Impact	**Mitigation Measure 4.10-1** Temporary construction noise barriers shall be implemented as follows: ▪ The Project shall ensure the provision of a minimum of 15 dBA noise barrier between the Project construction and the existing single-family residential uses (R1) to the northeast of the Project site during grading/excavation phases when heavy construction equipment operate within 1000 feet from the nearest noise sensitive receptor locations ▪ The Project shall ensure the provision of a minimum of 6 dBA noise barrier between the Project construction and the existing single-family residential uses (R2) along Verandah Court during grading/excavation phases **Mitigation Measure 4.10-2** Construction activities shall be scheduled so as to avoid operating more than two pieces of heavy equipment simultaneously within 100 feet from residential uses, which causes high noise levels during grading/excavation phases.	
OFF-SITE CONSTRUCTION NOISE - Off-site construction traffic would not exceed the significance threshold of 75 dBA. Therefore, impacts would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
OPERATIONAL NOISE - Project related traffic would result in noise levels that exceed the significance threshold for existing residential uses along Pico Canyon Road, between Whispering Oaks and A Street. However, the closest residential uses along this stretch of Pico Canyon Road, between Whispering Oaks and A Street, are located approximately 50 feet south of Pico Canyon Road and approximately 20 feet higher than Pico Canyon Road. As a result of attenuation from setback and height, Project-related traffic noise impacts would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
OPERATIONAL NOISE - Project implementation would increase noise levels at adjacent noise-sensitive receptors in the Project vicinity. However, Project-related operational noise levels would not exceed established thresholds and therefore impacts would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
SITE COMPATIBILITY (PROPOSED ON-SITE NOISE SENSITIVE USES) - Sound levels for Project residents would fall within the residential development standards established by the California Department of Health Services. Project impacts on on-site noise sensitive uses would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
SITE COMPATIBILITY (PROPOSED ON-SITE NOISE SENSITIVE USES) - The Project is not 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. As such, the Project would not expose people residing or working in the Project area to excessive noise levels. No impacts would occur in this regard.	No Impact	No mitigation measures are necessary.	No Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
SITE COMPATIBILITY (PROPOSED ON-SITE NOISE SENSITIVE USES) - The Project is not located within the vicinity of a private airstrip. As such, the Project would not expose people.	No Impact	No mitigation measures are necessary.	No Impact
VIBRATION - Construction activities associated with the Project would produce groundborne vibrations. However, vibration velocities would not exceed the established thresholds. Thus, construction vibration impacts would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
Public Services			
PROVISION OF PUBLIC SERVICES - Implementation of the Project could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, sheriff protection, schools, parks, libraries, or other public facilities. However, compliance with applicable regulatory requirements and implementation of the project design features and prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.	Potentially Significant Impact	Fire Protection No mitigation measures are necessary. Sheriff Protection No mitigation measures are necessary. Schools - Operation No mitigation measures are necessary. Schools - Short-Term Construction Impacts Please refer to Mitigation Measure 4.12-1. The following mitigation measures are also prescribed. **Mitigation Measure 4.11-1** During construction, on-going communication shall be maintained with school administration at the Pico Canyon Elementary School, providing sufficient notice to forewarn students and parents/guardians when	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		existing pedestrian and vehicle routes to the school may be impacted in order to ensure school traffic and pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor. **Mitigation Measure 4.11-2** In order to ensure school traffic and pedestrian safety, during construction, construction vehicles shall not haul past the Pico Canyon Elementary School except when school is not in session. If that is infeasible, construction vehicles shall not haul during school arrival or dismissal times. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor. **Mitigation Measure 4.11-3** During construction, crossing guards shall be provided by the Permittee in consultation with the Pico Canyon Elementary School, as appropriate, when safety of students may be compromised by construction-related activities at impacted school crossings in order to ensure school pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor. **Mitigation Measure 4.11-4** During construction, temporary traffic control, signage, and/or flaggers shall be present on Pico Canyon Road to direct vehicular traffic and pedestrians around the construction site in order to ensure school traffic and pedestrian safety. This mitigation measure is to	

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor. Parks No mitigation measures are necessary. Libraries No mitigation measures are necessary.	
Traffic/Transportation			
CIRCULATION SYSTEM - Implementation of the Project would contribute traffic to the roadway network during construction and operational activities which could result in potentially significant traffic impacts. Potentially significant construction and operation traffic impacts would be reduced to a less than significant level with implementation of the prescribed mitigation measures.	Potentially Significant Impact	Construction Refer to Mitigation Measures 4.11-1 to 4.11-4 regarding construction traffic noise. The following mitigation measure is also prescribed. **Mitigation Measures 4.12-1** Prior to the issuance of an encroachment permit within the public right-of-way, the Permittee, in coordination with the Los Angeles County DPW, shall devise a Traffic Control Plan to be implemented during construction of the Project. The Traffic Control Plan shall identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of construction activities associated with the Project improvements for Pico Canyon Road. The Traffic Control Plan shall be subject to final approval by the Los Angeles County DPW. Operation **Mitigation Measure 4.12-2** Prior to Final Map clearance, the Permittee shall be responsible for the	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
		payment of a pro-rata share contribution of four percent to convert the shared through/right-turn lane to one through lane and one right-turn lane on the east approach the intersection of The Old Road and Stevenson Ranch Parkway. This conversion would result in a total of two left-turn lanes, two through lanes, and one right-turn lane on the east approach. Additionally, the Permittee shall be responsible for the payment of a pro-rata share contribution of four percent to add an overlap phase for the westbound right turn.	
CONGESTION MANAGEMENT - Implementation of the Project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways. This impact would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
AIR TRAFFIC PATTERNS - Implementation of the Project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. No impact would occur in this regard.	No Impact	No mitigation measures are necessary.	No Impact
TRAFFIC HAZARDS - Implementation of the Project would not substantially increase hazards due to a design feature or incompatible use. This impact would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact
EMERGENCY ACCESS - Implementation of the Project would not result in inadequate emergency access. This impact would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

Table ES-1 (Continued)

Summary of Project Impacts and Mitigation Measures

Issue	Project Impact	Mitigation Measures	Level of Significance After Mitigation
CONFLICT WITH ADOPTED POLICIES, PLANS, OR PROGRAMS - Implementation of the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be less than significant.	Less Than Significant Impact	No mitigation measures are necessary.	Less Than Significant Impact

1. Introduction

1.0 INTRODUCTION

This document is a Draft Environmental Impact Report (EIR) that has been prepared at the direction and under the supervision of the Los Angeles County (County) in accordance with the California Environmental Quality Act (CEQA) and the Guidelines for California Environmental Quality Act (*State CEQA Guidelines*), as amended.[1,2] The Aidlin Hills Project (herein referred to as the "Project") proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, water tanks and a pump station, water quality treatment basins, and an emergency secondary fire access road. A detailed discussion of the Project is provided in Section 2.0, *Project Description*, of this EIR.

1. PURPOSE OF THE EIR

The County is the Lead Agency under CEQA responsible for preparing the EIR for the Project (State Clearinghouse No. 2014091027). This EIR has been prepared in conformance with CEQA (California Public Resources Code Section 21000 *et seq*.) and the *State CEQA Guidelines* (California Code of Regulations, Title 14, Section 15000 *et seq*.). The principal *State CEQA Guidelines* sections governing content of this document are Sections 15120 through 15132 (Content of an EIR).

In accordance with Section 15121 of the *State CEQA Guidelines*, a primary purpose of this EIR is to provide decision-makers and the public with specific information regarding the environmental effects associated with the Project, identify ways to minimize the significant effects, and describe a range of reasonable alternatives to the Project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring and reporting program for the Project.

The County, which has the principal responsibility of processing and approving the Project, will use and consider information in this EIR, along with other information that may be presented during the CEQA process, in the course of the decision to approve, disapprove, or modify the Project. Significant environmental impacts cannot always be mitigated to a level considered less than significant; in those cases, impacts are considered significant and unavoidable. In accordance with Section 15093(b) of the *State CEQA Guidelines*, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. This is termed, per Section 15093(b) of the *State CEQA Guidelines*, a "statement of overriding considerations."

This document analyzes the environmental effects of the Project to the degree of specificity appropriate to the currently proposed actions, as required by Section 15146 of the *State CEQA Guidelines*. This analysis considers the actions associated with the Project, to determine the short-term and long-term effects associated with their implementation. This EIR discusses both the direct and indirect impacts of this Project, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects. CEQA requires the preparation of an objective, full disclosure document to inform agency decision makers and the general public of the direct and indirect environmental effects of the proposed action;

[1] *Public Resources Code Sections 21000-21178.*

[2] *California Code of Regulations Title 14, Chapter 3, Sections 15000-15387.*

provide mitigation measures to reduce or eliminate significant adverse effects; and identify and evaluate a range of reasonable alternatives to the Project.

This EIR is intended to serve as a Project EIR under CEQA. Section 15161 of the *State CEQA Guidelines* states that a Project EIR should focus primarily on changes in the environment that would result from development of the Project. A Project EIR must examine all phases of a project, including planning, construction, and operation. This Project EIR is intended to provide the environmental information necessary for the County to make a final decision on the requested entitlements for this Project. This EIR is also intended to support discretionary reviews and decisions by other agencies.

2. COMPLIANCE WITH CEQA

In compliance with the *State CEQA Guidelines*, the County has provided opportunities for the public to participate in the environmental review process. During the preparation of the EIR, an effort was made to contact various Federal, State, regional and local government agencies and other interested parties to solicit comments and inform the public of the Project. This included, as further described below, the distribution of a Notice of Preparation (NOP) and the hosting of a public scoping meeting.

Pursuant to the provision of Section 15082 of the *State CEQA Guidelines*, the County circulated a NOP to public agencies, special districts, and members of the public for an extended 45-day period commencing September 15, 2014 and ending October 29, 2014. The purpose of the NOP was to formally convey that the County is preparing an EIR for the Project, and to solicit input regarding the scope and content of the environmental information to be included in the EIR. A description of the Project was circulated with the NOP. In addition, in accordance with Public Resources Code Section 21083.9, a public scoping meeting was held for the Project on Thursday, October 16, 2014 to obtain input as to the scope and content of the environmental information that should be included in the EIR. The meeting was held at the Pico Canyon Elementary School within the Multipurpose Room, located at 25255 Pico Canyon Road, Stevenson Ranch, CA 91381. The meeting was held to provide interested individuals/groups and public agencies the opportunity to provide input to the lead agency in determining the scope and focus of the EIR as described in the NOP. In an effort to ensure comments were accurately recorded, the County requested that all comments be submitted in writing by either completing a comment form available at the meeting or providing written comments by mail, fax or via e-mail. Comments on the scope and content of the EIR were received from various public agencies and individuals from the public. The NOP comments are contained in Appendix A, *Notice of Preparation/NOP Comment Letters,* and summarized in the Executive Summary under the "Issues Raised During NOP Process" subheading.

Section 4.0 of the EIR addresses the following environmental topics where the potential for significant impacts was identified: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Greenhouse Gas Emissions, Hazards/Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Public Services, and Traffic/Transportation. For each of the environmental issues described above, a cumulative impact analysis is provided in the EIR. Section 6.0, *Other Mandatory CEQA Considerations*, includes a discussion of those environmental issues where the characteristics of the Project made it clear that impacts would not be significant and further evaluation of such issues in the EIR is not necessary.

The Draft EIR is subject to a 45-day public review period, commencing X, 2015 and ending X, 2015, by responsible and trustee agencies, members of the public and other interested parties. In accordance with the provision of Sections 15085(a) and 15087(a)(1) of the *State CEQA Guidelines*, the County, serving as the Lead

Agency has circulated a Notice of Availability (NOA) of a Draft EIR to: property owners within 1,000 feet of the Project site; occupants of properties contiguous to the Project site; and public agencies, organizations and individuals that commented on the NOP or have requested such notice in writing. The NOA indicates the Draft EIR will be available for review at the following locations:

- Los Angeles County, Department of Regional Planning Internet site – http://planning.lacounty.gov/case/view/00-136/
- Los Angeles County Department of Regional Planning, Land Divisions Section – 320 West Temple Street, Room 1382, Los Angeles, CA 90012;
- Los Angeles County Stevenson Ranch Public Library – 25950 The Old Road, Santa Clarita, CA 91381;
- Valencia Public Library – 23743 West Valencia Boulevard, Santa Clarita, CA 91355; and
- Old Town Newhall Public Library – 24500 Main Street, Santa Clarita, CA 91321.

The NOA indicates that the County will prepare and transmit a Notice of Completion (NOC) to the State Clearinghouse. Proof of publication is available at the County. All comments on the EIR should be addressed to:

Mr. Tyler Montgomery
Los Angeles County Department of Regional Planning
Land Divisions Section
320 W. Temple Street, Room 1382
Los Angeles, CA 90012

Any agency, organization or members of the public desiring to comment on the EIR must submit their comments in writing to Mr. Tyler Montgomery prior to the end of the public review period. Upon the close of the public review period, the Lead Agency will then proceed to evaluate and prepare written responses to all relevant written comments received from both citizens and public agencies during the public review period. The County's responses at this point in the process will be limited to issues relating to the adequacy of the EIR, and not the relative merits of the Project.

The Final EIR will consist of the Draft EIR, corrections and additions to the Draft EIR, responses to comments addressing concerns raised by responsible agencies or reviewing parties and a mitigation monitoring and reporting program. After the Final EIR is completed, and at least 10 days prior to its certification, a copy of the response to comments on the Draft EIR will be provided or made available to all commenting parties.

3. FORMAT OF THE EIR

The EIR includes eight sections as well as appendices, which are organized as follows:

Executive Summary. This section presents a summary of the Project and alternatives, potential impacts and mitigation measures, and impact conclusions regarding significant unavoidable adverse impacts and effects not found to be significant. This section also summarizes the issues raised in the NOP comment letters regarding the scope and content of the EIR under the "Issues Raised During NOP Process" subheading.

1. **Introduction**. This section provides: a description of the purpose of the EIR; CEQA compliance information relative to the Project and the EIR; a brief overview of the environmental review process; and, outlines the organization of the EIR.

2. **Project Description**. Describes the location, details and the objectives for the Project.

3. **Basis for Cumulative Analysis**. This section contains a list of related projects anticipated to be built within the Project vicinity.

4. **Environmental Impact Analysis**. This section contains the environmental setting, Project and cumulative impact analyses, mitigation measures, and conclusions regarding the level of significance after mitigation for each of the following environmental issues: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Greenhouse Gas Emissions, Hazards/Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Public Services, and Traffic/Transportation. No significant impacts were identified regarding Agriculture/Forest, Energy, Mineral Resources, Population/Housing, Recreation, and Utilities/Services.

5. **Alternatives**. This section evaluates the environmental effects of the Project alternatives, including the No Project Alternative. It also identifies the environmentally superior alternative.

6. **Other Mandatory CEQA Considerations**. This section includes a discussion of issues required by CEQA that are not covered in other sections. This includes unavoidable adverse impacts, impacts found not to be significant, irreversible environmental changes, potential secondary effects caused by the implementation of the mitigation measures for the Project, and growth inducing impacts.

7. **List of Preparers**. This section lists all of the persons that contributed to the preparation of this EIR, the Lead Agency, and the Project Applicant.

8. **References**. This section lists all the references utilized in preparation of the EIR.

This EIR includes the environmental analysis prepared for the Project and appendices as follows:

- Appendix A – Notice of Preparation/NOP Comment Letters
- Appendix B – Air Quality Technical Worksheets
- Appendix C – Biological Resource Assessment
- Appendix D – Phase I Cultural and Paleontological Resources Assessment
- Appendix E – Geotechnical and Soils Report
- Appendix F – Greenhouse Gas Emissions Worksheets
- Appendix G – Phase 1 Environmental Site Assessment
- Appendix H – Drainage Concept Plan/Hydrology Report
- Appendix I – Noise Technical Worksheets
- Appendix J – Public Service and Utility Correspondence
- Appendix K – Traffic Impact Analysis
- Appendix L – Sewer Area Study

2. Project Description

2.0 PROJECT DESCRIPTION

The Aidlin Hills (Project) proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, water tanks and a pump station, water quality treatment basins, and an emergency secondary fire access road.

1. PROJECT LOCATION AND SURROUNDING USES

The Project site is located in the northern foothills of the Santa Susana Mountains in an unincorporated section of Los Angeles County (County) known as Stevenson Ranch. Regional access to the Project site is provided via Interstate 5 (I-5) located approximately 1.6 miles east of the Project site. Local access to the Project site is provided via Pico Canyon Road, a County master-planned arterial road. The regional context and local setting of the Project site are illustrated on **Figure 2-1**, *Regional Location and Project Vicinity Map*.

A single-family residential community, Southern Oaks, abuts the Project site on the east. The area to the west of the Project site is mostly undeveloped within Pico Canyon, but this area includes the remaining historic buildings of Mentryville and the Pico Canyon Oil Field Well No. 4. Mentryville and the Pico Canyon Oil Field Well No. 4 are state historic landmarks managed by the Santa Monica Mountains Conservancy (SMMC). The Pico Canyon Trail, a four mile trail mostly adjacent to Pico Canyon Road and providing access to Mentryville, meanders through Pico Canyon in areas generally to the west and southwest of the Project site. The areas directly to the north and south of the Project site are mostly undeveloped with moderate to steep variations in topography. **Figure 2-2**, *Aerial Photograph*, provides an aerial view of the Project site and surrounding uses.

2. EXISTING CONDITIONS

The Project site is primarily vacant and consists of undeveloped terrain with moderate to steep variations in topography. Several small to medium drainage courses traverse through the site. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland in the process of transition as they recover from a wildfire in 2010. A total of 15 Coast Live Oaks are located on-site. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site. Various unimproved access roads and trails traverse though the site. **Figure 2-3(a)** and **Figure 2-3(b)**, *Existing Site Photographs,* provide photographic illustrations of existing conditions within the Project site.

3. EXISTING LAND USE AND ZONING DESIGNATIONS

The Project site is located within the Santa Clarita Valley Area Plan. Because the Project was originally submitted prior to the 2012 adoption of the "One Valley, One Vision" area plan, the Project site will be analyzed under the land use categories that existed at the time of the original application in 2000. The Project site is zoned A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size), which was not changed with the adoption of the new area plan in 2012, and the relevant local area plan land use designations in 2000 were U2 – Urban 2, HM – Hillside Management, and W – Floodway/Floodplain . The current "One

Valley, One Vision" land use categories of RL5 (Rural Land 5) and RL 20 (Rural Land 20) would not apply, as explained in Section 4.9, *Land Use and Planning*.

4. PROJECT OBJECTIVES

The following Project objectives have been established and would aid decision makers in their review of the Project, associated environmental impacts, and alternatives.

1. Maintain an open space greenbelt around the developed area, with development located proximate to existing infrastructure and urban residential land uses;
2. Concentrate developed area on flatter topographic features;
3. Protect prominent and significant ridgeline between Mentryville and developed area;
4. Provide community character similar to adjacent Stevenson Ranch neighborhoods;
5. Design development to be compatible with the sensitive biological resources present;
6. Design development density consistent with the adjacent urban residential neighborhood, while preserving topographic slopes;
7. Design development to maintain the natural physical features of oak woodlands, prominent hillsides, and drainages by clustering of residential uses;
8. Design residential development with adequate emergency access for both the Project and the existing private properties southeast of the Project site;
9. Construct a significant number of single-family homes consistent with the Project site zoning, which would assist in providing for the County housing needs.
10. Improve Pico Canyon Road segment adjacent to the Project site consistent with Santa Clarita Valley Area Circulation Plan for streets and highways;
11. Enhance the biological resources of Wickham Canyon by planting indigenous native trees and shrubs;
12. Incorporate multiple fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards; and
13. Reserve and recognize oak trees as significant aesthetic and ecological resources.

5. DESCRIPTION OF THE PROJECT

The Project applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, two 250,000 gallon water tanks with a pump station serving the Project, water quality treatment basins, and an emergency secondary fire access road within a 230.5-acre Project site. The proposed residential lots would occupy approximately 21.2 acres of the Project site. The architectural styles proposed for the single-family dwellings would encompass Craftsman, Spanish, Tuscan, Colonial and eclectic styles. Typical building materials including stucco, siding, and stone veneer, would be used. The remaining improved areas of the Project site would include 3.8 acres for the water tanks/pump station, 4.3 acres of water quality basins, 9.7 acres of public streets, and 1.4 acres for the emergency secondary fire access road. **Figure 2-4,** *Vesting Tentative Tract Map***,** illustrates the Project's proposed site



PCR

N

0 0.5 1 Miles

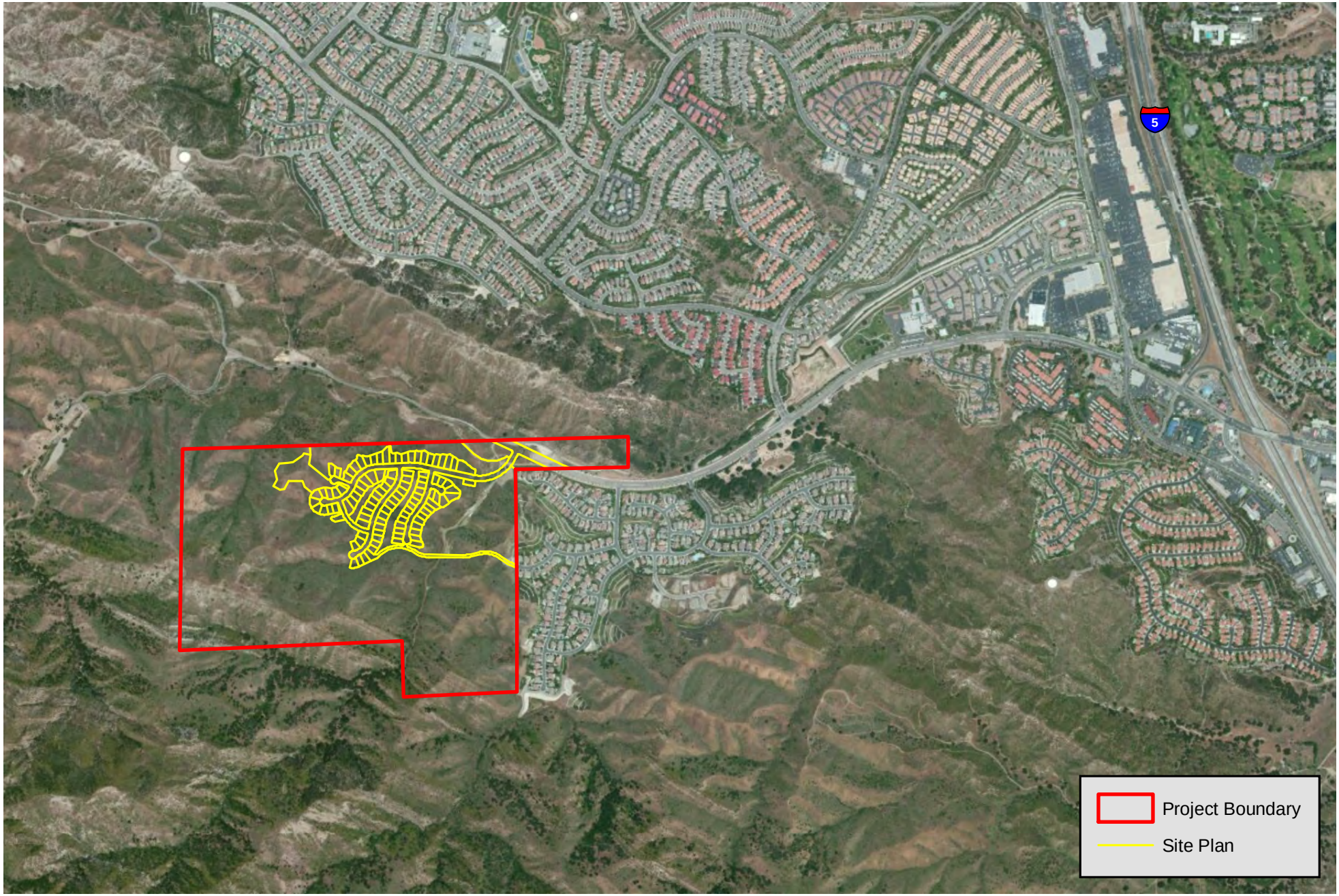
Regional Location and Project Vicinity Map

Aidlin Hills

Source: ESRI Street Map, 2010; PCR Services Corporation, 2014.

FIGURE

2-1



PCR

N

0 1,500 3,000 Feet

Aerial Photograph

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2014.

FIGURE

2-2



Photograph 1: Easterly view of the Project site from Pico Canyon Road.



Photograph 2: Westerly view of the Project's western boundary from Pico Canyon Road.



Photograph 3: Southeasterly view of the Project site.



Photograph 4: Easterly view of the Project site.

- PRELIMINARY WORKING DRAFT -

PCR

Existing Site Photographs

Aidlin Hills

Source: PCR Services Corporation, 2014.

FIGURE

2-3(a)



Photograph 1: Southeasterly view of the Project site.



Photograph 2: Northerly view of the Project site.



Photograph 3: Southerly view of the Project's southern boundary.



Photograph 4: Northwesterly view of the Project site.

- PRELIMINARY WORKING DRAFT -

PCR

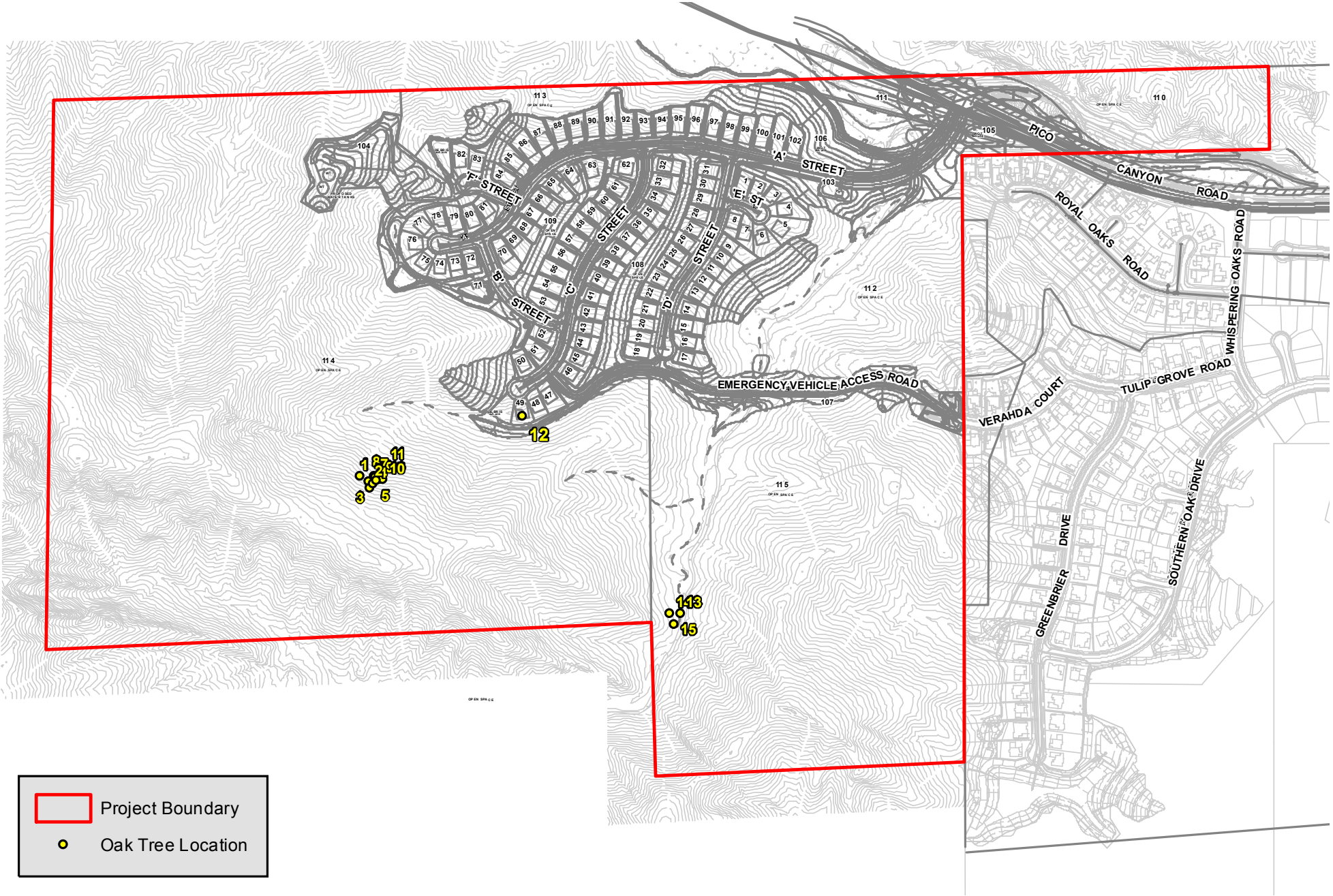
Existing Site Photographs

Aidlin Hills

Source: PCR Services Corporation, 2014.

FIGURE

2-3(b)



Vesting Tentative Tract Map

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2015; PCR Services Corporation, 2015.

FIGURE 2-4

This page intentionally blank.

plan. On-site developed-area drainage would be diverted to filtration ponds prior to discharge into Pico Creek. The Project applicant proposes to widen the segment of Pico Canyon Road that generally traverses the northern boundary of the Project site, in accordance with the approved alignment of the road; the improvements also will be consistent with the County's designation of the roadway as a major arterial. A 24-foot wide paved emergency vehicle access road, connecting with Verandah Court to the east, would be maintained to provide gated emergency fire access.

The Project applicant also proposes the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site, in addition to 25.1 acres of landscape area to total 190.1 acres of open space (82.5 percent). The current drainage of the Project site would be altered by the construction of "A" Street and Project water quality basis at the location where Pico Creek and Wickham Canyon currently join. Wickham Canyon would also be planted with indigenous native trees and shrubs. **Table 2-1**, *Project Summary*, provides a summary of the proposed land uses.

Table 2-1

Project Summary

Area Type	Lot Numbers	Number of Lots	Total Acreage
Single-Family Residences	1 – 102	102	21.2
Water Tanks/Pump Station	103 – 104	2	3.8
Open Space (Water Quality Basins)	105 – 112	8	4.3
Open Space (Fire Access Road)	113	1	1.4
Open Space (Landscape/Natural)	114 – 121	8	190.1
Public Streets	N/A	N/A	9.7
Total		**121**	**230.5**

Source: PCR Services Corporation, 2015

As discussed above, a total of 15 Coast Live Oaks are located on-site, one of which qualifies as a Heritage Oak; refer to Figure 2-4. The Project requires the removal of one Coast Live Oak (non-Heritage) and would not impact or endanger the health of the remaining 14 Coast Live Oaks, including the Heritage Oak, on the Project site. The remaining oak trees are not within the grading envelope or proposed disturbed Project development areas. These trees are located in the undisturbed open space areas within the Project boundary. Further, preservation guidelines and mitigation measures would be established for the 14 Coast Live Oaks that would remain on the Project site by placing protecting fencing during Project construction. In order to offset the removal of the one Coast Live Oak, a minimum of two, 15-gallon replacement trees to be planted on the Project site. These replacement trees would be located in areas consistent with the fuel modification guidelines required by the Los Angeles County Fire Department (LACFD). **Table 2-2**, *Tree Action Summary*, provides a summary of the types of trees and quantities to be encroached, removed, and/or to remain.

Table 2-2

Tree Action Summary

On-Site	Total	Encroachment	Removal	To Remain
Coast Live Oak	14	0	1	13
Heritage Oak	1	0	0	1
Total	**15**	**0**	**1**	**14**

Source: PCR Services Corporation, 2015

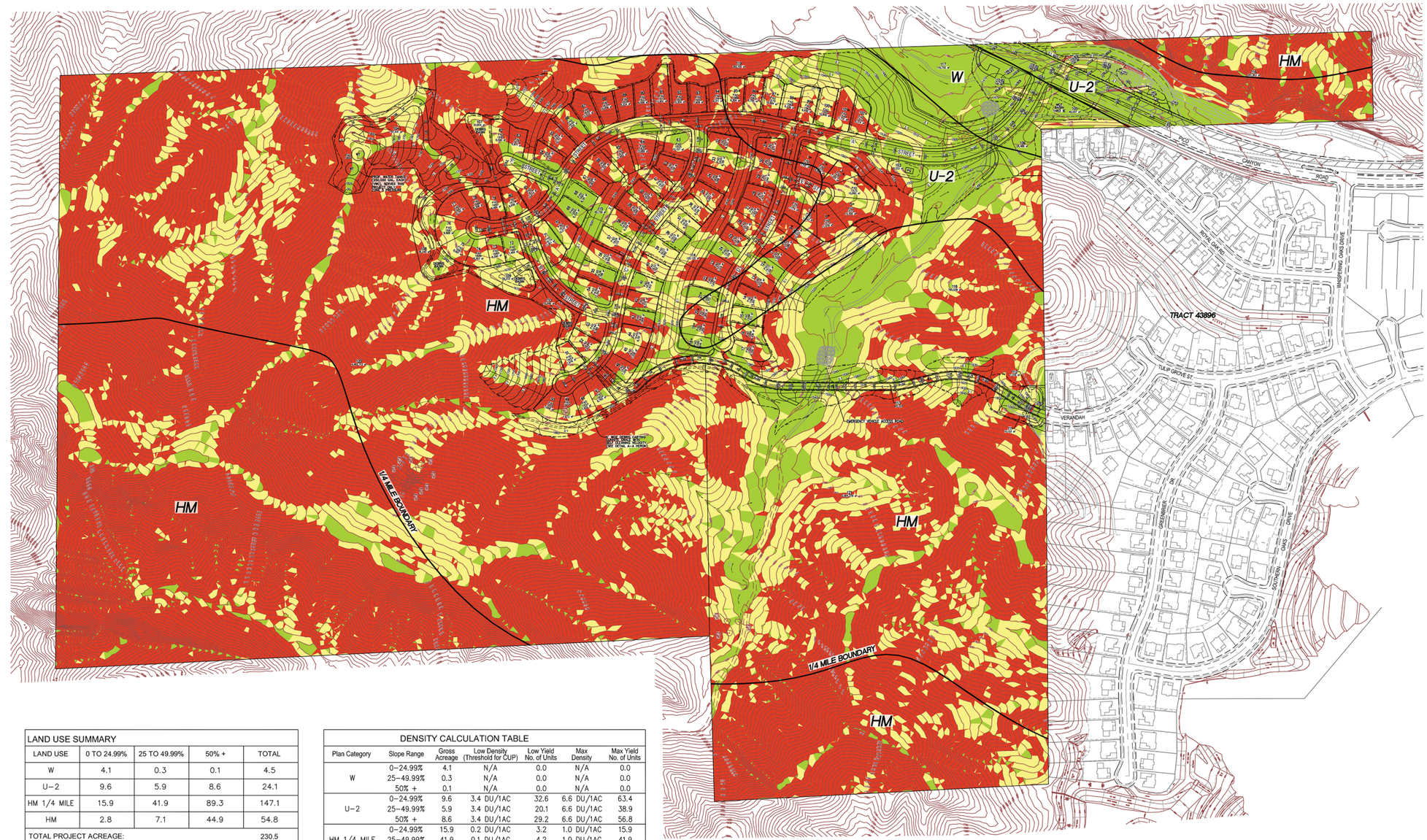
Grading

The Project would require a total of 3,200,000 cubic yards of grading, including approximately 1,600,000 cubic yards of cut material, which includes 300,000 cubic yards of over-excavation, with all cut material being used as fill material on the site. Accordingly, the Project grading plan would balance the grading quantities such that no import or export of soil would be required. Grading of the site would include hillside slopes to create stable building pads and internal roadways. The Project site consists of 32.4 acres (14% of total Project site) of less than 25% slope, 55.2 acres (24% of total Project site) of 25% to less than 50% slopes, and 142.9 acres (62% of total Project site) of greater than 50% slopes; please refer to **Figure 2-5**, *Slope Density Exhibit,* for range of slope density percentages throughout the Project site. Manufactured slopes would have an average grade of 2 horizontal to 1 vertical. The grading limits would extend off-site to the north and east to permit slope rounding and adequate transitions to natural terrain, encompassing an additional seven to eight acres. The grading plan for the Project is required to fully comply with County grading standards.

Fire Protection

The Project site is located within Fire Zone 4, which is a Very High Fire Hazard Severity Zone (VHFHSZ). Fire protection measures as part of the Project design would include, but are not limited to, fire-retardant structures adjoining natural open space areas and fuel modification/management to provide defensible space and assist in wildland fire suppression. The Project's fuel modification plan would be required to comply with the County's standards for a VHFHSZ. The preliminary fuel modification plan for the perimeter portions of the proposed development envelope would incorporate required set back zones, fire road clearance, long-term maintenance requirements, and the conceptual planting. Each fuel modification zone would include requirements for minimum structure setbacks, permanent irrigation systems, fire retardant plants from a County-approved plant list, and landscape and planting maintenance (i.e., thinning and removal of dead plants). The fuel modification zones (Zone A, Zone B, Zone C, and the Emergency Secondary Fire Access Road Zone) are summarized below and discussed in more detail in Section 4.7, *Hazards and Hazardous Materials*.

- Fuel Modification Zone A – Setback Zone (0 – 30 feet): This Zone extends 30 feet beyond the edge of any combustible structure, accessory structure, appendage or projection. Overhangs or other parts of the structure not accurately reflected on the plans may negate the approval of the plant location on the approved plan. Landscaping and vegetation in this Zone consists primarily of green lawns,



LEGEND:

1900	EXISTING CONTOUR
1900	PROPOSED CONTOUR
	PROPOSED SLOPE
	FLOW DIRECTION (DRAINAGE)

GENERAL PLAN DESIGNATIONS

W	FLOODWAY
U–2	URBAN 2
HM	HILLSIDE MANAGEMENT

SLOPE LEGEND:

COLOR	SLOPE (%)
	0–24.99
	25–49.99
	> 50

LAND USE SUMMARY

LAND USE	0 TO 24.99%	25 TO 49.99%	50% +	TOTAL
W	4.1	0.3	0.1	4.5
U–2	9.6	5.9	8.6	24.1
HM 1/4 MILE	15.9	41.9	89.3	147.1
HM	2.8	7.1	44.9	54.8
TOTAL PROJECT ACREAGE:				230.5

DENSITY TRANSFER SUMMARY

PROPOSED UNITS WITHIN U–2 DESIGNATION= 27*
PROPOSED UNITS WITH HM DESIGNATION= 75
TOTAL PROPOSED UNITS= 102

NOTE: DENSITY TRANSFER OF 6 UNITS FROM U–2 TO HM DESIGNATION PER CALCULATION BELOW

MAX UNITS IN HM PER SLOPE MAP, (SEE TABLE AT RIGHT)= 69
PROPOSED UNITS IN HM= 75
NET UNITS TRANSFERED TO HM FROM U–2= 75–69= 6 UNITS

*UNITS TRANSFERED FROM U–2 TO HM: LOTS 4, 12, 15, 18, 21, 100

DENSITY CALCULATION TABLE

Plan Category	Slope Range	Gross Acreage	Low Density (Threshold for CUP)	Low Yield No. of Units	Max Density	Max Yield No. of Units
W	0–24.99%	4.1	N/A	0.0	N/A	0.0
	25–49.99%	0.3	N/A	0.0	N/A	0.0
	50% +	0.1	N/A	0.0	N/A	0.0
U–2	0–24.99%	9.6	3.4 DU/1AC	32.6	6.6 DU/1AC	63.4
	25–49.99%	5.9	3.4 DU/1AC	20.1	6.6 DU/1AC	38.9
	50% +	8.6	3.4 DU/1AC	29.2	6.6 DU/1AC	56.8
HM 1/4 MILE	0–24.99%	15.9	0.2 DU/1AC	3.2	1.0 DU/1AC	15.9
	25–49.99%	41.9	0.1 DU/1AC	4.2	1.0 DU/1AC	41.9
	50% +	89.3	0.05 DU/1AC	4.5	0.05 DU/1AC	4.5
HM	0–24.99%	2.8	0.2 DU/1AC	0.6	0.5 DU/1AC	1.4
	25–49.99%	7.1	0.1 DU/1AC	0.7	0.5 DU/1AC	3.6
	50% +	44.9	0.0 DU/1AC	0.0	0.05 DU/1AC	2.2
Total Project		230.5		95.1		228.6

Midpoint Density= (95.1+228.6)/2= 161 Units

N

0 400 Feet

PCR

Slope Density Exhibit

Aidlin Hills

Source: Alliance Land Planning & Engineering, 2014.

FIGURE **2-5**

This page intentionally blank.

ground covers not exceeding six inches in height, and adequately spaced shrubs. The overall characteristics of the landscape would provide adequate defensible space in a fire environment.

- Fuel Modification Zone B – Irrigation Zone (30 – 100 feet): Landscaping and vegetation in this Zone would include ground covers maintained at a height not to exceed six inches in Zone B with 12 inches being acceptable within 50 feet of a structure and 18 inches beyond 50 feet in Zone B if located on a slope. The landscape would provide adequate defensible space where specimen native plants may remain if properly maintained for adequate defensible space. Irrigation systems are not required for this Zone if it consists entirely of native plants.

- Fuel Modification Zone C – Thinning Zone (100 – 200 feet): Plants in Zone C would be spaced appropriately. Existing native vegetation would be modified by thinning and removal of those species constituting a fire risk. General spacing for existing native shrubs or groups of shrubs is 15 feet between canopies. General spacing for exiting native trees or groups of trees is 30 feet between canopies. Native plants may be thinned by reduced amounts as the distance from development increases.

- Emergency Secondary Fire Access Road Zone: Fuel modification would extend a minimum of ten feet on each side from the edge of any public or private roadway that may be used as access for fire-fighting apparatus or resources. The fire access road would have an unobstructed vertical clearance for a width of 20 feet.

Associated with the fuel modification plan, the Project would incorporate a landscape plan that utilizes a plant palette consisting of fire retardant plants, native and appropriate non-native drought tolerant species in accordance with the LACFD guidelines. The Project's fuel modification plan would provide fire protection for both the Project and the existing residences to the east of the Project site. A detailed description of the fire protection measures to be implemented for the Project and illustrations of the Project's fuel modification zones are included in Section 4.7, Hazards and Hazardous Materials, in this EIR.

Lighting/Landscape/Project Entry

Lighting of streets and select landscaped areas would be provided for safety and security. Lighting provided by the Project would be shielded to avoid light trespass intruding on adjacent properties, while providing sufficient illumination for safety purposes.

The Project's conceptual landscape plan is shown in **Figure 2-6**, *Conceptual Landscape Plan*. The Project would incorporate a landscape plan that utilizes a plant palette consisting of fire retardant plants, native and appropriate non-native drought tolerant species. The Project's landscaping would be made up of a mixture of low growing ground cover, medium to large shrubs, and trees arranged in order to minimize the amount of fuel available where the fire potential is high. Drought-tolerant, native landscaping would be used in public common areas to reduce water consumption. Manufactured slopes outside of fuel modification areas will be revegetated with locally indigenous plant species similar to the surrounding native vegetation. The plant palette for the Project would ultimately be determined based on the LACFD requirements for use of fire-retardant plants in high fire-prone areas, but in consideration of the County landscaping requirements. Irrigation for both public and private landscape areas would be designed to be water-efficient. The Project proposes a Homeowner's Association (HOA), which would maintain common areas including Project landscaping, fuel modification, and monuments, but not natural open space areas. The Project entry would consist of a corner monument serving as the anchor to a split rail fencing system that leads into the Project.

The Project monument would be of concrete masonry unit block construction capped in stone and faced with ledger stone and earth tone colors. A stucco face would serve as the backdrop for raised lettering giving the Project's name. A minimal amount of low voltage lighting would be designed to illuminate the signage. Low-growing seasonal accent plants would anchor the corners of the monument. Tall trees with unique foliage and trunk structure would provide the background to the monument. A decomposed granite trail meanders from the Project entry along both sides of "A" Street, which would include a marked street crossing for the trail. The landscape concept for the Project entry is illustrated in **Figure 2-7**, *Project Entry Plan.*

Utilities and Infrastructure

The Project would connect with existing water and sewer lines within Pico Canyon Road that currently serve the single-family residential community directly to the east. The Project proposes two 250,000 gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline in Pico Canyon Road with a secondary point of connection at Verandah Court. The Project would install water efficient plumbing fixtures to ensure the provision of wastewater services.

6. CONSTRUCTION SCHEDULE/DETAILS

Subject to Project approval and issuance of grading and construction permits, Project construction is conceptually anticipated to commence in November 2015 and conclude in July 2019 with grading operations anticipated to commence in November 2015 and conclude in June 2016. Infrastructure installation would commence in May 2016, starting with sewer (about four months) and followed by storm drain (about six months), water (about six months), street hardscape (about two months), and other utilities (about four months). The anticipated daily construction schedule in accordance with County regulations would be 7:00 AM to 6:00 PM, six days a week. The majority of these construction phases would overlap. Residential house construction is estimated to begin in January 2017, being constructed in multiple phases over an approximately two and one half year period. A construction staging area would be set up on-site near Pico Canyon Road and would include a construction trailer and construction worker parking.

7. APPROVALS AND PERMITS

Implementation of the Project would require, but may not be limited to, the following approvals:

- Vesting Tentative Tract Map for 121 total lots (102 single-family residential lots, two lots for water tanks/pump station, eight lots for open space/water quality basins, one lot for open space/fire access road, eight lots for open space/landscape/natural);
- Conditional Use Permit ("CUP") for a density-controlled development and density transfer from Urban land use category in a hillside area, for development within a hillside management area exceeding the low density threshold, and for grading exceeding 100,000 cubic yards of soil materials;
- Oak Tree Permit for the removal of one oak tree;
- Section 404 permit from the U.S. Army Corps of Engineers (USACE) for impacts to Waters of the U.S.;
- Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife ("CDFW") for impacts to streams; and
- Section 401 Certification from the Los Angeles Regional Water Quality Control Board (LARWQCB) for impacts to surface water quality and Waters of the U.S.



CONCEPT PLANT SCHEDULE

DECIDUOUS TREES 364
CERCIS OCCIDENTALIS / WESTERN REDBUD
A,B-15
CHILOPSIS LINEARIS / DESERT WILLOW
A,B-15
LAGERSTROEMIA INDICA `CHEROKEE` / CHEROKEE CRAPE MYRTLE
A,B
LIQUIDAMBAR STYRACIFLUA / AMERICAN SWEET GUM
A,B
X CHITALPA TASHKENTENSIS / CHITALPA
A,B

EVERGREEN TREES 375
ARBUTUS UNEDO / STRAWBERRY TREE
A,B-15
BRACHYCHITON POPULNEUM / BOTTLE TREE
A,B-15
CEDRUS DEODARA / DEODAR CEDAR
B-30
CORDYLINE AUSTRALIS / GRASS PALM
A,B
GEIJERA PARVIFLORA / AUSTRALIAN WILLOW
A,B-15
HYMENOSPORUM FLAVUM / SWEETSHADE
A,B
LOPHOSTEMON CONFERTUS / BRISBANE BOX
A,B-15
METROSIDEROS EXCELSUS / NEW ZEALAND CHRISTMAS TREE
A,B
RHUS LANCEA / AFRICAN SUMAC
A,B-15

SHRUBS
ABELIA X GRANDIFLORA / GLOSSY ABELIA
A,B-5
BOUGAINVILLEA X `BARBARA KARST` / BARBARA KARST BOUGAINVILLEA
B
CALLISTEMON VIMINALIS `LITTLE JOHN` / DWARF WEEPING BOTTLEBRUSH
A,B-10
CISTUS LADANIFER / CRIMSON SPOT ROCKROSE
A,B-10
COTONEASTER DAMMERI / BEARBERRY COTONEASTER
B
DIETES BICOLOR / FORTNIGHT LILY
A,B
DODONAEA VISCOSA `PURPUREA` / PURPLE LEAFED HOPSEED BUSH
A,B-10
ECHIUM CANDICANS / PRIDE OF MADEIRA
B
LEUCOPHYLLUM FRUTESCENS / TEXAS SAGE
A,B-10
MUHLENBERGIA RIGENS / DEER GRASS
A,B-10
NANDINA DOMESTICA / HEAVENLY BAMBOO
A,B
PITTOSPORUM TOBIRA `VARIEGATA` / VARIEGATED MOCK ORANGE
A,B-5
PYRACANTHA COCCINEA `ORANGE GLOW` / ORANGE GLOW FIRETHORN
B
RHAMNUS CALIFORNICA / CALIFORNIA COFFEE BERRY
B
ROSA FLORIBUNDA `ICEBERG` / ICEBERG ROSE
A,B
SALVIA LEUCOPHYLLA / PURPLE LEAF SAGE
A,B
WESTRINGIA FRUTICOSA / COAST ROSEMARY
A,B-10

HOA SLOPE GROUND COVER 833,131 SF
BACCHARIS PILULARIS / DWARF COYOTE BRUSH
B
COTONEASTER DAMMERI `LOWFAST` / LOWFAST BEARBERRY COTONEASTER
B
GAZANIA X `BURGUNDY` / GAZANIA
A,B
LONICERA JAPONICA `HALLIANA` / HALLS HONEYSUCKLE FLOWERING VINE
B
MYOPORUM PARVIFOLIUM `PROSTRATUM` / MYOPORUM
A,B
ROSMARINUS OFFICINALIS `PROSTRATUS` / DWARF ROSEMARY
B-30

PRIVATE SLOPE GROUND COVER 62,525 SF
GAZANIA X `BURGUNDY` / GAZANIA
A,B
MYOPORUM PARVIFOLIUM `PROSTRATUM` / MYOPORUM
A,B

- PRELIMINARY WORKING DRAFT -

PCR

N

0 300 Feet

Conceptual Landscape Plan

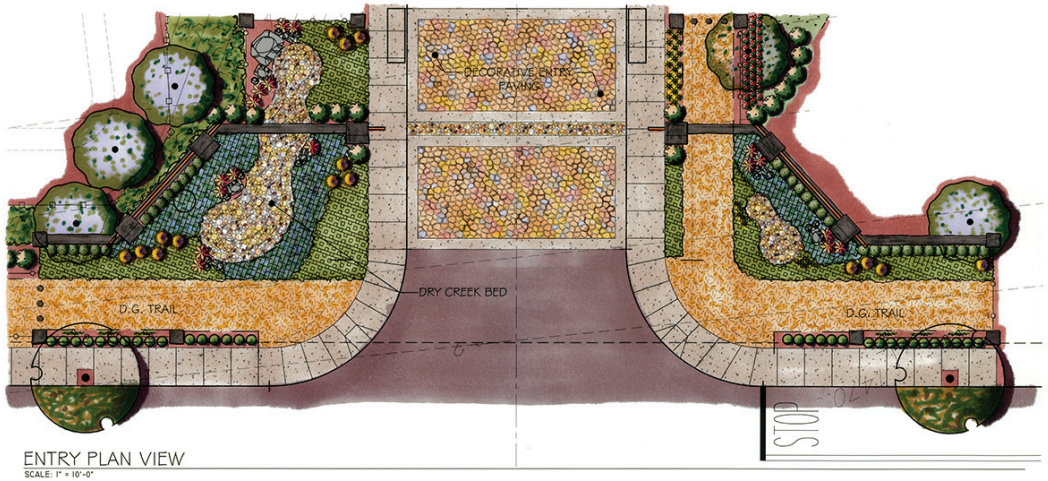
Aidlin Hills

Source: Design Studios Landscape Development, 2014.

FIGURE
2-6



ENTRY MONUMENT SIGNAGE ELEVATION
SCALE: 1" = 5'-0"



ENTRY PLAN VIEW
SCALE: 1" = 10'-0"



DECONSTRUCTED WALL EXAMPLE



- PRELIMINARY WORKING DRAFT -

PCR

Project Entry Plan

Aidlin Hills

Source: Design Studios Landscape Development, 2014.

FIGURE
2-7

3. Basis for Cumulative Analysis

3.0 BASIS FOR CUMULATIVE ANALYSIS

The California Environmental Quality Act (CEQA) requires that EIRs analyze cumulative impacts. As defined in *State CEQA Guidelines* Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other foreseeable projects causing related impacts in the vicinity of the Project. *State CEQA Guidelines* Section 15130(a) states that an EIR must discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(c)(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. However, an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR. Furthermore, when the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR must briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency must identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant.

In addition, *State CEQA Guidelines* Section 15130(b) indicates that the analysis of cumulative impacts shall reflect the severity of the impacts and the likelihood of occurrence, but the discussion need not provide the same level of detail as is provided for the impacts attributable to the project alone. Instead, the discussion of cumulative impacts is guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of the other projects which do not contribute to the cumulative impact.

A project has "cumulatively considerable" impacts when its incremental effects "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. Cal. Pub. Res. Code Section 21083(b); see also *State* CEQA *Guidelines* Section 15355(b).

For an adequate discussion of significant cumulative impacts, the *State CEQA Guidelines* (Section 15130(b)(1)(A) and (B)) allow an environmental impact report to determine cumulative impacts and reasonably foreseeable growth based on either of the following methods:

- A list of past, present, and probable future projects producing related or cumulative impacts; or
- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental planning document that has been adopted or certified and described or evaluated regional or area-wide conditions contributing to the cumulative impact.

For the purposes of the cumulative impacts analysis for the Project, the County has opted to use the list approach for evaluating cumulative effects. The County developed a list of past, present and probable future projects. The list of identified related projects is provided in **Table 3-1,** *Related Projects List,* with the locations of each of the related projects listed in **Figure 3-1**, *Related Projects Location Map*.

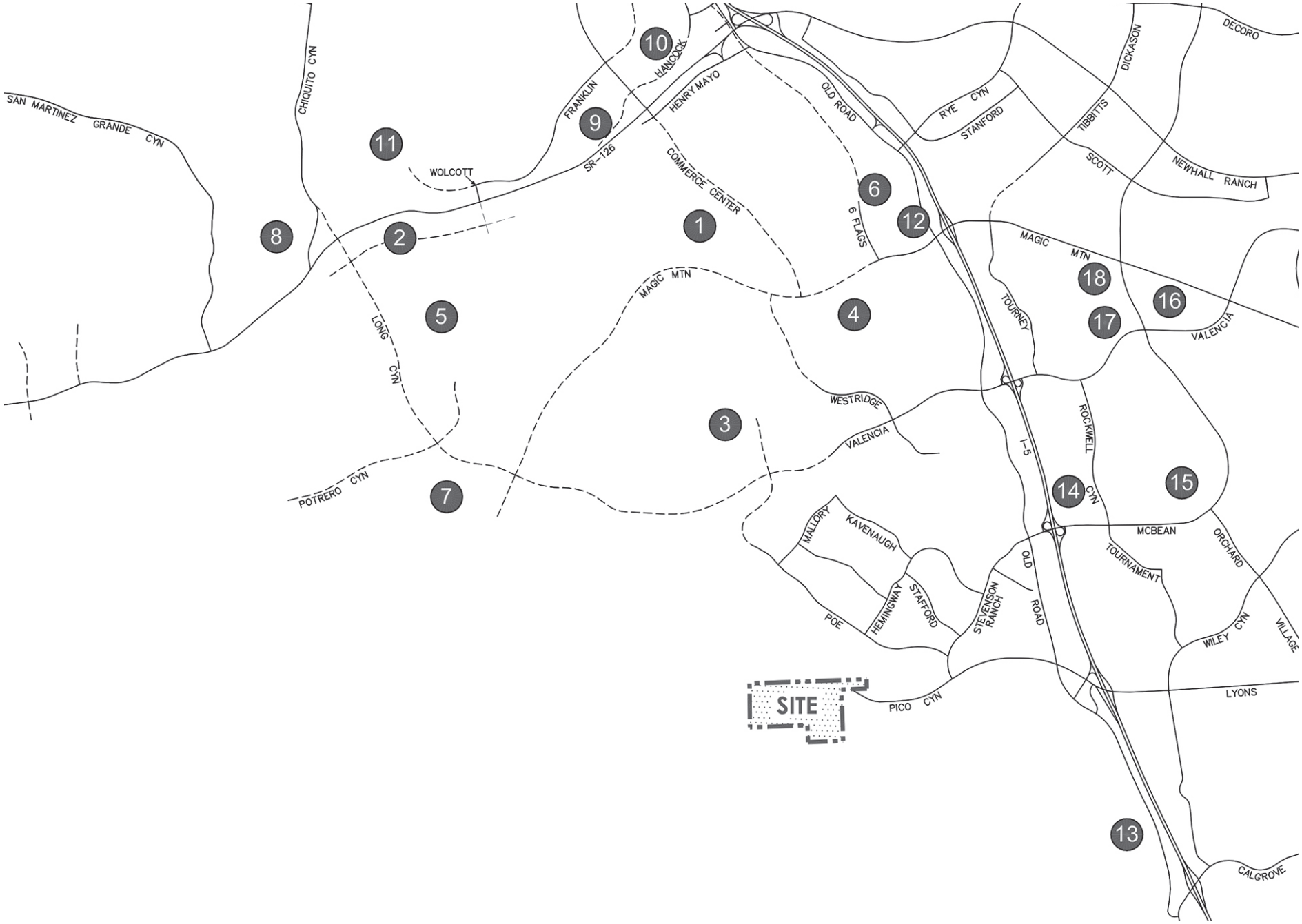
Although the projects listed below serve as the primary bases for evaluation of cumulative impacts, the approach to these analyses varies for certain environmental issues. The cumulative analyses for each environmental issue are presented in the applicable environmental issue sections in Chapter 4, *Environmental Impact Analysis*, of this EIR.

Table 3-1

Related Projects List

Map No.	Name	Description
1	Mission Village (TR 61105)	4,055 Residential Units; 1,555,100 sq. ft. Commercial Business Park/Office/Retail
2	Landmark Village (TR 53108)	1,444 Residential Units; 1,030,000 sq. ft. Commercial/Office/Retail
3	Legacy Village (TR 61996)	3,457 Residential Units; 884,000 sq. ft. Commercial Office/Retail
4	Entrada South (VTTM 53295)	1,574 Residential Units; 730,000 sq. ft. Commercial Office/Retail
5	Homestead South (VTTM 060678)	3,617 Residential Units; 66,400 sq. ft. Commercial/Retail; 900 Student Elementary School; 1,200 Student Middle School; 2,500 Student High School
6	Entrada North (VTTM 071377)	1,510 Residential Units; 2,380,000 sq. ft. Commercial Office/Retail/Industrial
7	Potrero Village (VTTM 061911)	4,296 Residential Units; 250,000 sq. ft. Commercial Office/Retail
8	Homestead North	1,818 Residential Units, 1,250,000 sq. ft. Commercial Office/Retail
9	Valencia Commerce Center Phase III (PM 26363)	664,000 sq. ft. Commercial Industrial/Retail
10	Valencia Commerce Center Phase IV (TR 18108)	3,227,068 sq. ft. Commercial Business Park/Office/Industrial
11	Chiquita Canyon Landfill Expansion	Expansion of landfill operations by approximately 143 acres (net increase of approximately 600 trucks on peak day). Relocation of access roadway from SR-126 to Wolcott Way.
12	Tract 18654	30,000 sq. ft. Commercial Retail
13	Lyons Canyon Ranch (TR 53653)	95 Single Family Detached Residential Units and 95 Active Senior Units
14	UCLA Film Archives	250,000 sq. ft. Office/Archiving
15	Henry Mayo Newhall Memorial Hospital Master Plan	127,000 sq. ft. Hospital Expansion and 200,000 sq. ft. Medical Office Buildings (net increases)
16	Town Center Mall Expansion	203,500 sq. ft. Retail Commercial (Phase II) and 75,000 sq. ft. Retail Office (Phase III)
17	Valencia Sheraton	200 Room Hotel
18	Valencia Town Center Square	Mixed-use Residential, Retail & Office development consisting of 10 residential units and 40,000 sq. ft. of commercial retail and office

Sources: Aidlin Hills VTTM 52796 Traffic Impact Analysis (prepared by Stantec, November 24, 2014); LA County Department of Public Works Traffic and Lighting Division (March 2014); LA County Department of Regional Planning GIS-NET3 (accessed March 2014); Mission Village Traffic Impact Analysis (March 2011); Castaic Bridge and Major Thoroughfare Construction Fee District Update Report (June 2009); discussions with City of Santa Clarita staff (April 2013); Homestead South Traffic Impact Analysis (December 2013);



- PRELIMINARY WORKING DRAFT -

PCR

N

Related Projects Location Map

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

3-1

This page is intentionally blank.

4. Environmental Analysis

4.0 ENVIRONMENTAL IMPACT ANALYSIS
4.1 AESTHETICS

1. INTRODUCTION

This section describes existing conditions on the Project site and in the area relating to scenic resources, aesthetics, views, and light and glare. Policies and plans associated with view preservation and visual quality are also described, as well as the design features of the Project. The analysis of Project impacts focuses on the potential for the Project to obstruct scenic views, damage scenic resources, degrade the visual quality of the site, or create adverse light and glare.

The analysis presented in this section of the Draft EIR assesses both aesthetic impacts (degradation of visual quality) and view impacts (loss or diminishment of important views). Impacts on aesthetics were considered adverse where the Project would eliminate scenic natural features or areas, or introduce contrasting features into valued natural areas as viewed from a regional riding or hiking trail. To assess contrasts between proposed and existing conditions, basic features (such as landform, vegetation, and structures) and basic elements (form, line, color, and texture) were identified, with the significance of change based on how dissimilar introduced features and elements would be with those continuing to exist in the built and natural landscape. The focus of the evaluation is on potential effects from viewpoints considered most important, such as public views along Pico Canyon Road, Pico Canyon Trail, and from adjacent residential areas.

The analysis of lighting focuses on potential adverse light spillover effects on sensitive receptors due to the use of artificial light during the evening and nighttime hours. Artificial light may be generated from point sources as well as from indirect sources of reflected light. Uses such as residences are considered light sensitive, since occupants have expectations of privacy during evening hours and may be subject to disturbance by bright light sources. Light impacts can also reduce views of the night sky, and if not controlled, can disturb wildlife in natural habitat areas.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Daytime glare generation is common in urban areas, but is less of an issue for locations such as the Project site. Glare is typically associated with buildings with exterior façades largely or entirely comprised of highly reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare-sensitive uses include residences and open space/wildlife corridors.

2. ENVIRONMENTAL SETTING

Regulatory Framework

Federal and State Regulations

There are no federal land use regulations pertinent to the Project. The California Department of Transportation (Caltrans) defines a scenic highway as any freeway, highway, road, or other public right-of-way, that traverses an area of exceptional scenic quality. Suitability for designation as a State Scenic Highway is based on vividness, intactness, and unity. According to Caltrans, a segment of the Interstate 5 (I-5) freeway to the southeast of the Project site is eligible for designation as state scenic highway, but is not officially designated.[1] Therefore, there here are no officially designated State Scenic Highways in the vicinity of the Project.

The following describes the applicable local plans and regulations that are applicable to the Project.

Local Plans

Los Angeles County General Plan and Santa Clarita Valley Area Plan

Los Angeles County regulates scenic open space primarily through its General Plan and Area Plans. The adopted Los Angeles County General Plan (1980) serves as an advisory document to provide decision-makers with a policy framework to guide specific, incremental decisions the achieve the Plan's stated goals and objectives. Policies and programs directed toward the management and protection of scenic resources are contained in the Conservation and Open Space Element of Los Angeles County General Plan. Open space lands may be subject to additional controls through special management areas, such as National Recreation and Forest areas, significant ecological areas (SEAs), mineral resource areas, hazard areas, and areas subject to cultural heritage protection.

The Draft Los Angeles County General Plan 2035 represents a comprehensive effort to update the County's 1980 General Plan and provides the policy framework for how and where the unincorporated areas will grow through the year 2035. Goals and polices related to scenic resources are primary contained in the Conservation and Natural Resources Element of the Draft General Plan. As shown Figure 9.7, Scenic Highways, of the Los Angeles County General Plan 2035, a portion of I-5 southeast of the Project site is designated as an eligible scenic highway.

To conserve the natural beauty and public benefit of hillsides, hillside development land use activities that may result in environmental degradation are subject to regulations and design guidelines for impacts affecting, but not limited to, slope, soil erosion, natural drainage channels, and seismic and fire hazards. The Project site is located within a Hillside Management area. The Hillside Management Conditional Use Permit (CUP) is a regulatory vehicle to consider potential environmental degradation and hillside alteration in Hillside Management Areas (HMAs), which are areas where the slope is 25 percent or steeper.

[1] *Caltrans, California Scenic Highway Program.* http://www.dot.ca.gov/hq/LandArch/scenic_highways/ *Accessed December 16, 2014.*

A major policy change in the Draft General Plan compared to the adopted General Plan is the expansion of SEAs. The objective of the SEA Program is to preserve the genetic and physical diversity of the County by designating biological resource areas capable of sustaining themselves into the future. The SEA Program is intended to ensure that privately held lands within the SEAs retain the right of reasonable use, while avoiding activities and development projects that are incompatible with the long term survival of the SEAs. Other changes to the Draft Los Angeles County General Plan 2035 include the development of land use and design policies to encourage mixed-use and transit oriented development, greater protection of the scenic and environmental attributes of rural areas, and policies to improve the interface between urban and rural areas of the County.

Goals and policies for the protection of scenic resources within the Santa Clarita Valley, which encompasses the Project site, are set forth in the 1990 Santa Clarita Valley Area Plan. Refer to Section 4.9, *Land Use*, of this Draft EIR for a listing of the General Plan and Santa Clarita Valley Area Plan policies that pertain to visual and aesthetic qualities. As discussed in the policy consistency analysis provided therein, the Project would be consistent with the applicable General Plan and Area Plan polices related to visual and aesthetic resources.

Los Angeles County Code

Hillside Management and Significant Ecological Areas

Additional hillside management regulations are set forth in Section 22.56.215 of the Los Angeles County Code. The purpose of the Hillside Management regulation is to protect resources contained within Hillside Management areas from incompatible development, which has the potential to result in environmental degradation. It is not the purpose of Section 22.56.215 to preclude development within these areas but to ensure, to the extent possible, that such development maintains and where possible enhances the natural topography, resources and amenities of the Hillside Management areas, while allowing for limited controlled development therein. Hillside Management regulations apply to residential development in urban and non-urban hillside areas and require the filing of a hillside management CUP, thus allowing for limited development while protecting the natural topography, resources, and character of the hillsides.

As discussed under Section 4.9, *Land Use*, of this Draft EIR, the Project would be consistent with the objectives of Section 22.56.215 and would not have significant impact with respect to the objectives of this Code section. The Project must comply with the provisions of Section 22.56.215 in order to meet the burden of proof for the requested density control development conditional use permit.

Rural Outdoor Lighting District Ordinance

Outdoor lighting regulations for rural areas are set forth in Section 22.44.500 of the County Code, which establishes a Rural Outdoor Lighting District Ordinance for specific areas of the County. These regulations are designed to conserve energy and resources and promote dark skies for the enjoyment and health of humans and wildlife, while permitting reasonable uses of outdoor lighting for nighttime safety and security. The regulations include limitations on allowable light trespass, fully shielding outdoor lighting, maximum heights of fixtures, street lighting in rural areas, outdoor recreation facilities, and signs. The Project site is within the Rural Outdoor Lighting District.

Environmental Setting

Scenic resources can include natural open spaces, topographic formations, and landscapes, such as lakes, rivers, and streams that contribute to a high level of visual quality. Scenic resources can also include man-made open spaces and the built environment, such as parks, trails and pathways, nature centers, archaeological, and architectural features.

Site Characteristics and Visual Quality

Surrounding Land Uses and Off-Site Views

The Project site is located in the northern foothills of the Santa Susana Mountains in the unincorporated area of Stevenson Ranch. A single-family residential community, Southern Oaks, abuts the Project site on the east and affords views of the eastern boundary of the Project site from limited residences and public streets. Local access to the Project site is provided via Pico Canyon Road, a County master-planned arterial road located to the north. According to the Los Angeles County General Plan, a portion of the I-5 freeway southwest of the Project site is the only highway qualified to be designated scenic highway in the vicinity of the Project site, although it has not officially been designated. This freeway segment is designated as a first priority study route by the 1990 Santa Clarita Valley Area Plan. The Pico Canyon Trail, a proposed 5.62-mile trail mostly adjacent to Pico Canyon Road would meander through Pico Canyon in areas generally to the east and southeast of the Project site. A 0.6-mile section of this trail currently exists, extending westward from the trailhead at Stevenson Ranch Parkway to current trail end at the Southern Oaks community. It is planned for this trail to eventually provide access to Mentryville. Pico Canyon Trail would extend from Weldon Canyon Motorway near its intersection with The Old Road, parallel the southbound side of The Old Road until just south of Lyons Ranch, where the trail would turn west into a small canyon, parallel a nearby residential development towards the northwest, and parallel the eastbound side of Pico Canyon Road then Pico Canyon Service Road, past Dewitt Canyon and Wickham Canyon, into Pico Canyon. Pico Canyon Trail would terminate on its westernmost point at Mentryville Park in Pico Canyon.[2] Due to intervening topography and distance, views of the Project site from the Pico Canyon Trail are primarily limited to portions of the trail located directly north of the Project site, which are closely aligned with Pico Canyon Road.

The areas directly to the north and south of the Project site are mostly undeveloped with moderate to steep variations in topography. The area to the west of the Project site is mostly undeveloped within Pico Canyon, but this area includes the remaining historic buildings of Mentryville and the Pico Canyon Oil Field Well No. 4, which are located approximately ¾ mile to the west of the Project site at the terminus of Pico Canyon Road. Mentryville and the Pico Canyon Oil Field Well No. 4 are state historic landmarks managed by the Santa Monica Mountains Conservancy (SMMC) and are considered scenic resources. Due to distance and topography, scenic views of the Project site area not available from Mentryville or Pico Canyon Oil Field Well No. 4; nor are scenic views of these historical resources visible from the Project site.

[2] *Los Angeles County Department of Parks and Recreation. 2013. Santa Susan Mountains Draft Trails Master Plan. Prepared by Sapphos Environmental, Inc. May 1, 2013.*

On-Site Characteristics and Views

The Project site is primarily of undeveloped hillside terrain with moderate to steep variations in topography. Pico Canyon traverses the site from west to east in the northeastern corner of the site, and Wickham Canyon crosses the site from south to north and joins with Pico Canyon in the northeast. Several small to medium drainage courses traverse through the site. Elevations across the Project site range from approximately 1,470 feet above mean sea level (AMSL) near the confluence of Wickham Canyon and Pico Canyon, to approximately 2,000 feet in the southwest corner of the site. The natural slopes on-site exhibit gradients ranging from approximately 1.5:1 to 3:1 (horizontal: vertical). Various dirt access roads and trails traverse though the site. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland.

As discussed earlier, there are no designated scenic highways that support views of the Project site, and views of the Project site are not otherwise called out as scenic or designated for protection by state or local agencies. As discussed in greater detail in Section 4.4, *Cultural Resources*, no scenic historical resources as defined under CEQA, are located within the Project site. Within the Project site are 15 coast live oaks, including a cluster of 11 coast live oaks located in the southwestern portion of the Project site. However, due to topography and distance, scenic views of the coast live oaks are not available from the Southern Oaks development to the east or Pico Canyon Road or Pico Canyon Trail to the north of the Project site.

Due to the limited access to the Project site, views of the Project site are only available from a limited number of locations, which include westerly views of the Project site from residential uses to the east, and public views of the Project site from Pico Canyon Road and Pico Canyon Trail to the north. **Figure 4.1-1,** *View Location Map* indicates the locations of the photographs. **Figure 4.1-2,** *Views of the Project Site*, provide views of the Project site from these various vantage points. Representative views to and across the site from surrounding locations are described below.

View 1 in Figure 4.1-2, depicts westerly views of the Project site from Verandah Court, located within the Southern Oaks residential development to the east of the Project site. As shown, this vantage point depicts the eastern edge of the Verandah Court cul-de-sac, wire metal fencing, and the easterly paved edge of the planned emergency access right of way in the foreground. Beyond the fencing in the background view is a moderate hillside covered in low-lying vegetation rising 50 to 100 feet in elevation from Verandah Court.

View 2 in Figure 4.1-2, depicts views of the Project site from Pico Canyon Road and the nearby Pico Canyon Trail to the northeast, near where the proposed main access road to the Project site would be constructed. As depicted, foreground views of the Project site include areas the northern portion of Wickham Canyon, which characterized by a flat, grass-covered field and an unimproved access road. Towards the background, are a series of moderate to steep sloping hillside rising from approximately 100 to 150 feet in height.

View 3 in Figure 4.1-2, displays an easterly view of the Project site from Pico Canyon Road and the nearby Pico Canyon Trail further to the west. As shown, views of the Project site are limited due to the presence of moderate hillsides adjacent to the southern boundary of Pico Canyon Road, which dominate the majority of this view point. Limited views of the Southern Oaks development are available to the east, as the rolling hillsides transition to the flatter topography of Wickham Canyon.

In general, due to the configuration of on-site landforms, public and private views of the Project site, particularly of the proposed development area, are limited.

Light and Glare

The Project site, in its undeveloped state, does not produce light and glare. Residential uses in the Project vicinity immediately to the east of the Project site area generate light from interior sources, safety and landscape lighting, and street lighting. In addition, residential streets as well as Pico Canyon Road produce light and glare from passing cars and their headlights.

3. PROJECT IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provides thresholds of significance to determine whether a project would have a significant environmental impact regarding aesthetics. Based on the size and scope of the Project and the potential for aesthetics impacts, the thresholds identified below are included for evaluation in this EIR.

A significant impact related to aesthetics, visual quality, or light and glare would occur if the proposed project would

Threshold 1: Have a substantial adverse effect on a scenic vista (refer to Impact Statement 4.1-1);

Threshold 2: Be visible from or obstruct views from a regional riding or hiking trail (refer to Impact Statement 4.1-1);

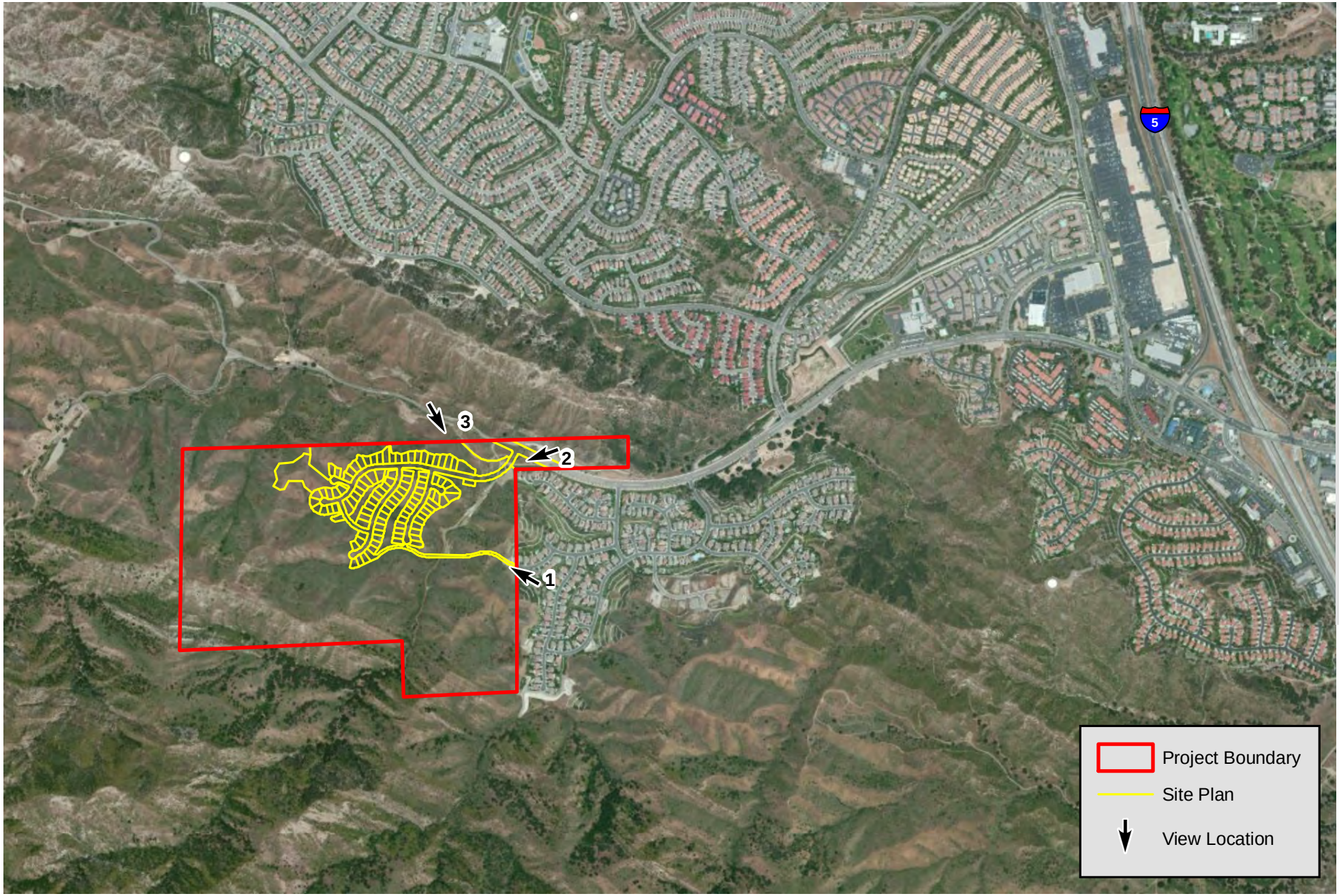
Threshold 3: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings near a state scenic highway (refer to Impact Statement 4.1-2);

Threshold 4: Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features (refer to Impact Statement 4.1-1); and

Threshold 5: Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area (refer to Impact Statement 4.1-3).

Methodology

The assessment of aesthetic impacts is based upon the potential for the Project to degrade the existing visual character or aesthetic quality of the Project site or its surrounding area by being substantially visible, or obstructing views, from public vantage points. The potential for Project implementation to improve the aesthetic qualities associated with the site is also addressed. As part of this analysis, distinct aesthetic features and the overall aesthetic character of the area were recorded based on field surveys, photographic interpretation, photo simulations and topographic analysis.



- PRELIMINARY WORKING DRAFT -

PCR

N

0 1,500 3,000 Feet

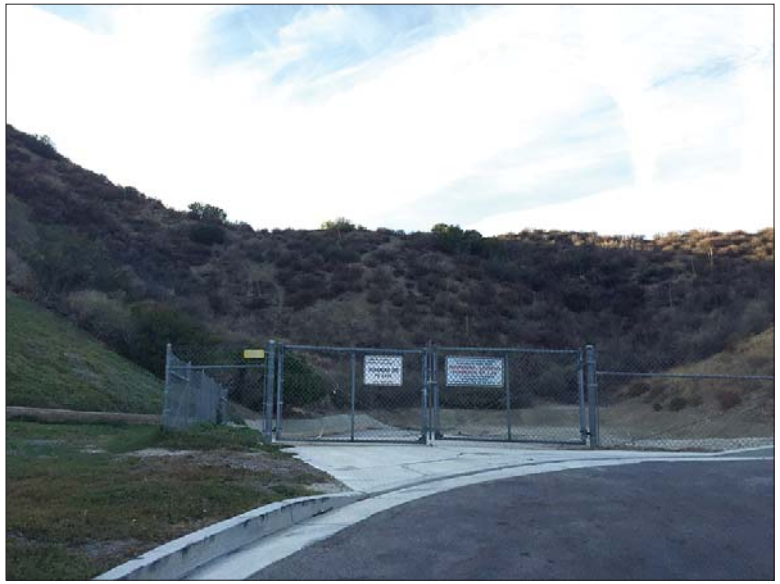
View Location Map

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2014.

FIGURE

4.1-1



View 1: Westerly views of the Project Site from Verandah Court.



View 2: Westerly views of the Project Site from Pico Canyon Road.



View 3: Easterly views of the Project site from Pico Canyon Road.

- PRELIMINARY WORKING DRAFT -

PCR

Views of the Project Site

Aidlin Hills

Source: PCR Services Corporation, 2014.

FIGURE

4.1-2

The analysis of view impacts is based on the potential for the Project to result in changes to existing views within and near the Project site as perceived by the public (e.g., motorists and pedestrians on the surrounding roadways and pedestrians on trails) and private citizens (e.g., residents and property owners within the vicinity). The analysis addresses both the degree to which proposed development may obstruct or detract from existing views and on- or off-site aesthetic features from representative viewing locations, as well as the extent to which Project development or design features may create new view opportunities or improve existing views. The identification of views within the Project site and surrounding area was accomplished through field surveys, photographic interpretation, and topographic analysis.

Photo simulations were prepared to assist with the visual analysis. Two viewpoints were selected during an initial field survey. These view points were selected based on the prominence and importance of the views and the potential for views to be affected by the Project. Representative future conditions were then approximated based on Project site and grading plans using computer-rendered drawings.

The analysis of light and glare identifies the location of light-sensitive land uses and describes the existing ambient conditions on the Project site and in the Project vicinity. The analysis describes the Project's proposed light and glare sources, and the extent to which Project lighting could spill off the Project site onto light-sensitive areas. The analysis also describes the extent to which the Project would illuminate sensitive land uses.

The evaluation of existing glare conditions associated with the Project site included visual observations of the site. The potential for substantial changes to existing glare generation from future development of the site was then evaluated. Nearby receptors sensitive to glare exposure were identified through a windshield survey of the area and review of the aerial photograph.

Project Design Features

The following Project Design Features (PDFs) are reflected in the Project plans and would be included in the Mitigation Monitoring and Reporting Program (MMRP) for the Project and as such will be implemented as components of the Project. These features would minimize/reduce the significance of aesthetic impacts.

Of the 230 acres which encompass the entire Project site, the Project would preserve approximately 165 acres (71 percent) as undeveloped, natural areas within the southern and western portions of the Project site. The majority of the developed area of the Project would be west of Wickham Canyon, behind the low and moderate hillside areas that define much of the northern boundary of the Project site, minimizing view impacts along Pico Canyon Road and Pico Canyon Trail. The prominent ridgelines and ridgeline between Mentryville and developed area would be left in their natural conditions.

The Project would feature 102 single family homes designed in a curvilinear street pattern featuring five cul-de-sacs and one main primary access road from Pico Canyon Road. Single-family residences will incorporate various architectural styles reflective of the surrounding area including Craftsman, Spanish, Tuscan, and Colonial and eclectic styles. Building materials will include stucco, siding, and stone veneers. Lighting of streets and select landscaped areas would be provided for safety and security. Lighting provided by the Project would have light fixtures that are directed downward and shielded to prevent spillover into surrounding areas, while providing sufficient illumination for safety purposes.

The Project would be visible to viewers along a limited portion of Pico Canyon Road, as well as Pico Canyon Trail near Wickham Canyon. The Project entry would include corner monuments that would serve as the anchor to a split rail fencing system that leads into the Project and would incorporate landscaping. The corner monuments would be constructed of concrete masonry unit blocks capped in stone and faced with ledger stone and earth tone colors. The monuments would feature a decorative iron gate, a deconstructed rock wall with window cutouts, and archways along the Pico Canyon trail of an adequate size to allow the passage of horses. A minimal amount of low voltage lighting will be designed to illuminate the signage.

Due to topography and distance, with the exception of development of the emergency access road, main access road, and new landscaping, the developed areas of the Project would be largely screened from view from Southern Oaks residences bordering the Project site to the east.

The Project would continue the pedestrian and equestrian access from Pico Canyon Trail by constructing a decomposed granite trail from the Project entry, heading easterly to connect to the existing trail fronting the Southern Oaks neighborhood. The new trail would also head westerly along the south side of Pico Creek to the Project's northerly tract boundary. This trail would be designed for multi-purpose users (pedestrians, equestrians and bicyclists) and would be designated as the continuation of the Pico Canyon Trail aligned to the north of the Project site. The landscape concept for the Project entry is illustrated in Figure 2-6, *Project Entry Plan.*

The Project's conceptual landscape plan is shown in Figure 2-5, *Conceptual Landscape Plan*. As shown, the Project's landscape design would utilize a plant palette consisting of fire retardant plants, native and appropriate non-native drought tolerant species. The Project's landscaping would be made up of a mixture of low growing ground cover, medium to large shrubs and trees. As shown, landscaping and visual buffers would be concentrated along the perimeter of the proposed developed areas, including adjacent to main entryway to the Project from Pico Canyon Road, the new emergency access road, and adjacent to the Southern Oaks neighborhood. The concentration of landscaping in these areas would serve as natural visual buffers between the proposed homes and streets and existing residences, roadways, and trails. To reduce the impacts associated with graded areas and construction of the main Project entry road and emergency access road, these areas would be revegetated and landscaped as soon as feasible following grading and roadway development. The Project site would also incorporate landscaping between the internal residential streetscape system.

The two proposed water storage tanks and associated service road would be located to the west of the proposed single family homes—physically and visually separated from residences with landscaping and trees. The proposed water tanks would not be visible from the Southern Oaks neighborhood but would be partially visible from Pico Canyon Road or Pico Canyon Trail, north of the Project site.

PDF 1-1: The Project would preserve approximately 165 acres (71 percent) as undeveloped, natural areas within the southern and western portions of the Project site. The majority of the developed area of the Project would be west of Wickham Canyon, behind the low and moderate hillside areas that define much of the northern boundary of the Project site, minimizing view impacts along Pico Canyon Road and Pico Canyon Trail. The prominent ridgelines and ridgeline between Mentryville and developed area would be left in their natural conditions.

PDF 1-2: Lighting of streets and select landscaped areas would be provided for safety and security. Lighting provided by the Permitee would have light fixtures that are directed downward and shielded to prevent spillover into surrounding areas, while providing sufficient illumination for safety purposes.

PDF 1-3: The Project entry would include corner monuments that would serve as the anchor to a split rail fencing system that leads into the Project and would incorporate landscaping. The corner monuments would use earth tone colors and archways along the Pico Canyon trail of an adequate size to allow the passage of horses. A low voltage lighting will be designed to illuminate the signage.

PDF 1-4: The Project's landscape design will utilize a plant palette consisting of fire retardant plants, native and appropriate non-native drought tolerant species. The Project's landscaping would be made up of a mixture of low growing ground cover, medium to large shrubs and trees. As shown, landscaping and visual buffers would be concentrated along the perimeter of the proposed developed areas, including adjacent to main entryway to the Project from Pico Canyon Road, the new emergency access road, and adjacent to the Southern Oaks neighborhood. The concentration of landscaping in these areas would serve as natural visual buffers between the proposed homes and streets and existing residences, roadways, and trails. To reduce the impacts associated with graded areas and construction of the main Project entry road and emergency access road, these areas would be revegetated and landscaped as soon as feasible following grading and roadway development. The Project site would also incorporate landscaping between the internal residential streetscape system.

Impact Analysis

SCENIC VISTA/VISUAL CHARACTER AND VISUAL QUALITY

Threshold AES-1: Would the project have a substantial adverse effect on a scenic vista?
Threshold AES-2: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
Threshold AES-3: Would the project be visible from or obstruct views from a regional riding or hiking trail?

Impact Statement 4.1-1 Project implementation would alter the views of and across the Project site with the development of the proposed residential uses, which will be permanently changed from a natural environment to a suburban, built environment. However, no significant scenic views from surrounding areas, including riding or hiking trails, would be substantially diminished or obstructed by the Project. Further, the Project would be visually consistent and compatible with the single-family residential uses to the east of the Project site. As such, the Project would permanently change but not substantially degrade the existing visual character or quality of the site and its surroundings. Impacts would be less than significant in these regards.

Construction Impacts

The Project's grading plan proposes that grading quantities would balance on-site and that no import or export of soil would be required. During construction, 55 acres of the Project site will be disturbed to accommodate the development requirements for the 102 single family dwelling lots, the open space lots, and the water tank lots. The grading limits would extend off-site to the north and east to permit slope rounding and adequate transitions to natural terrain, encompassing an additional seven to eight acres. The remaining 175 acres of natural open space area located to the west and south would be preserved, reducing potential visual impacts. The grading plan for the Project would fully comply with County grading standards. Development of the Project would cause changes in visual conditions on portions of the Project site during construction, particularly as viewed from the residences to east and motorists and pedestrians along Pico Canyon Road and Pico Canyon Trail to the northeast.

Construction would occur over an approximate three-and-a-half year period. Activities would include grading, creation of manufactured slopes, installation of sewers, two water tanks, dry utilities, and entry monumentation, the sequential addition of buildings, and finally the provision of landscaping and other aesthetic treatments. Other site preparation activities include construction of an internal roadway system and construction of the primary access road connecting to Pico Canyon Road, as well as an emergency vehicle access road from Verandah Court to the east. Construction activities related to Project development would temporarily introduce heavy equipment and construction workers to the Project site and some offsite areas to engage in typical construction activities (e.g., earth movement, materials delivery, building construction, etc.).

Most of the residential properties to the east with views of the Project site will be buffered by a natural open space area during grading activities and should experience very limited impacts. However, some of the Southern Oaks residences with westerly views of the Project site near Verandah Court would observe major earth-moving operations and landform alterations primarily associated with the construction of the emergency vehicle access road from Verandah Court. However, most of the developed areas associated with the Project (e.g., grading, construction of homes, building pads, water tanks, and internal streets and infrastructure) would not be visible beyond the low lying hillsides located to the west of Verandah Court. Furthermore, as Verandah Court is a cul-de-sac, public views by motorists and pedestrians would generally be limited to residents and visitors accessing homes within the cul-de-sac.

Pedestrians and motorists along Pico Canyon Road and hikers along the Pico Canyon Trail to the northeast of the Project site would also be able to see construction activity and construction of the primary access road and Project entryway. However, due to the design of the Project, the majority of the areas of construction would be located behind the low hillsides that front much of Pico Canyon Road. Visible construction activities would include some grading and construction of the primary access road and entryway. Furthermore, to reduce the aesthetic impact associated with construction of the main access road connection to Pico Canyon Road and the secondary emergency access road connection to Verandah Court, these areas would be revegetated and landscaped as soon as feasible following grading and roadway development.

Therefore, private and public views of short-term construction activity would be less than significant, since such activity will be temporary, and therefore any interruption of private and public views will be transitory and limited to portions of the area in the vicinity of the Project site.

Operation Impacts

Visual Character/Quality

Of the 230 acres which encompass the entire Project site, the Project would preserve approximately 165 acres (71 percent) as undeveloped natural areas within the southern and western portions of the Project site, reducing potential changes in visual character and quality to surrounding areas, especially views from existing open space properties to the south and west (see PDF 1-1). The remainder of the Project site would be converted from open space to developed land, including 102 single-family residential uses, local roadways, two water tanks with a pump station, water quality treatment basins, and an emergency secondary fire access road and landscaped areas. The proposed design, scale and development pattern of the proposed single-family residential uses are consistent with the single-family Southern Oaks development located to east of the site. The Project also is consistent with the Los Angeles County General Plan land use designation and policies applicable to the Project. The 1990 Santa Clarita Valley Area Plan designates the Project site as U2 – Urban 2, HM – Hillside Management, and W – Floodway/Floodplain, with the U2 land use designation immediately adjacent to Pico Canyon Road.

The Project would be the most visible at northeastern portion of the Project site, near the mouth of Wickham Canyon, where the terrain transitions from low-to-moderate hillsides to an area of flatter topography. This area would be highly visible to pedestrians and motorists along Pico Canyon Road and Pico Canyon Trail and some single-family homes in the Southern Oaks community. At this location, the Project would feature the main entry road, new landscaping, and the Project entryway, monument and fencing. The Project entryway would feature corner monuments, signage, landscaping, a decorative iron gate, a deconstructed rock wall with window cutouts, and archways of an adequate size to allow the passage of horses on the Pico Canyon Trail (see PDF 1-3 and 1-4). Plantings in front of the entryway and monuments would feature an array of seasonal colors throughout the year and would include accent plants to anchor the corners of the monument. This Project entryway would be located within the U2 land use category, adjacent to the existing Pico Canyon storm drain infrastructure, which will be modified to accommodate the Pico Canyon Road extension within the County-designated alignment.

Beyond the Project entryway, the new main entry road would be substantially landscaped on either side with a mixture of low growing ground cover, medium to large shrubs, and trees arranged to visually enhance the road and entryway while incorporating drought-tolerant, native landscaping to reduce water consumption. The landscaping would continue southwestward into the residential area. The biological resources of northern Wickham Canyon would be enhanced by the planting of indigenous native trees and shrubs, enhancing existing views of the Canyon, much of which currently consists of non-native grassland. This would serve to buffer views of on-site single family homes from Pico Canyon Road that would not be set behind hillside areas. In accordance with the LACFD-approved fuel modification plan, the Project would incorporate a landscape plan that utilizes a plant palette consisting of fire retardant plants and native and appropriate non-native drought tolerant species (see PDF 1-4).

With regard to general aesthetic characteristics of the single family homes, building materials would consist of typical materials used in residential construction, including wood, stucco, and non-reflective glass, consistent with the adjacent residential development (see PDF 1-2).

To the east, residential properties with views of the Project site will be buffered by a natural open space area and would experience very limited impacts. Some of the Southern Oaks residences with westerly views of

the Project site near Verandah Court would notice a change in view, as a 24-foot wide paved emergency vehicle access road connecting with Verandah Court would be constructed to provide emergency fire access to the Project site. However, construction of this element would not create a significant change in the aesthetic character of this area, as the hillside area would be maintained and the emergency access road would be a visual continuation of the paved Verandah Court roadway.

The Project would also implement a landscape plan for landscaped areas and natural open space areas adjacent to existing residential development. These areas would serve as natural buffers between existing residential neighborhoods and areas of development. The landscape plan would utilize a plant palette consisting of trees, groundcovers, and shrubs that includes fire retardant species, as well as native and appropriate non-native drought tolerant species.

Based on the above analysis, the Project would permanently change but not substantially degrade the existing visual character or quality of the site or surrounding areas, and a less than significant impact would occur in this regard.

Views

Photo simulations were prepared from two vantage points to illustrate the conceptual design, massing, and views of the Project, depicting both short-range and long-range views of the Project site.

Figure 4.1-3, *Photographic Simulation Looking West from Verandah Court* provides a general representation of the eastern portion of the proposed development area, which includes the new 24-foot-wide paved and gated emergency vehicle access road. The simulation is representative of the view from, from private residences at the western end of the Verandah Court cul-de-sac located in the Southern Oaks neighborhood. As depicted in Figure 4.1-3, due to distance and topography, the proposed single-family homes would not be visible from Verandah Court. The dominant component of the Project that would be visible would be the new paved emergency vehicle access road, which would extend westerly from Verandah Court. As shown, the new emergency vehicle access road serves as a visual continuation of the paved Verandah Court roadway and is buffered on either side by new. As such, views of the Project from this vantage point would not significantly contrast with existing conditions. Therefore, the potential visual effect of the Project site from this vantage point would be less than significant.

Figure 4.1-4, *Photographic Simulation Looking Southwest from Pico Canyon Road,* shows that the proposed entry road and entry monument and fencing at the northeastern edge of the site would be visible from Pico Canyon Road and Pico Canyon Trail. Existing views from this vantage point are of a flatter grassland area, an improved access road in the foreground, hillside areas in the background, and above-ground utilities (i.e. telephone pole/overhead power lines). The impact on foreground views from this vantage point would be less than significant due to the current disturbed nature of the foreground views in this area, and the enhancement of the entry to the site with monumentation, trees, and other landscaping. The existing telephone pole/overhead power lines would be removed and the lines relocated underground in conjunction with other utility infrastructure.

Therefore, based on the above discussion, impacts to views would be less than significant.



Existing Condition



Proposed Development

PCR

Photographic Simulation Looking West from Verandah Court

Aidlin Hills
Source: Focus 360, 2015.

FIGURE
4.1-3



Existing Condition



Proposed Development

PCR

Photographic Simulation Looking Southwest from Pico Canyon Road

Aidlin Hills
Source: Focus 360, 2015.

FIGURE
4.1-4

SCENIC RESOURCES

Threshold AES-4: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?

Impact Statement 4.1-2 Project implementation would not substantially damage scenic resources or other locally recognized desirable aesthetic natural features within a scenic highway and a less-than-significant impact would occur in this regard.

According to Exhibit CO-7, Scenic Resources, of the Santa Clarita Valley Area Plan 2012, no scenic resources are located within the Project site or immediately adjacent areas. The 1990 Santa Clarita Valley Area Plan did not designate any scenic resources in the plan. The Project site is located approximately 1.6 miles west of I-5. According to Figure 9.7, Scenic Highways, of the Los Angeles County General Plan 2035 and the Scenic Highways Plan map in the 1990 Santa Clarita Valley Area Plan, a portion of I-5 southeast of the Project site is designated as an eligible scenic highway. Due to the distance and intervening topography, the Project site is not visible from the scenic highway segment. Thus, no views of the site are available from a scenic highway.

The Project would grade the existing hillside on the Project site, which will permanently alter the topography. However, as shown in **Figure 4.1-4**, *Photographic Simulation Looking Southwest from Pico Canyon Road*, the alteration of on-site hillsides would not substantially interfere with views to the higher hillsides to the south of the Project site, which will remain visible over the tops of the new residences.

As discussed earlier, Mentryville and the historic Pico Canyon Oil Field Well No. 4, both state historic landmarks, are located to the west of the Project site at the terminus of Pico Canyon Road. Due to intervening topography, the areas proposed for development as part of the Project would not be visible from these historic landmark sites. As discussed in Section 4.4, *Cultural Resources*, there are no scenic historic resources located on the Project site.

According to the Oak Tree Survey Update (2013) prepared by PCR, a total of 15 coast live oaks are located on-site. Of these, three are in a cluster to the south of the Project site and 11 are clustered to the west of the Project site. One isolated oak tree lies within the proposed Project grading limit envelope. Due to distance and topography, these coast live oaks are not visible from Pico Canyon Road or Pico Canyon Trail to the north or from the Southern Oaks development to the east. Furthermore, in order to offset the removal of the one Coastal Live Oak, oak tree permit conditions will be implemented to replace it with a minimum of two, 15-gallon oak trees to be planted on the Project site. These replacement trees will be located in areas consistent with the fuel modification guidelines required by the Los Angeles County Fire Department (LACFD) and will be consistent with the overall Project design. Preservation guidelines and permit conditions will be established for the 14 Coastal Live Oaks that will remain on the Project site by placing protecting fencing during Project construction.

The most scenic resource in the Project area is the steep, nearly vertical rocky ridgeline on the north side of Pico Canyon Road that separates the Project site and the Southern Oaks community from the earliest neighborhoods of Stevenson Ranch to the north. This ridgeline rises nearly 400 feet above Pico Canyon and is on average about 100 feet higher than the highest hillside within the Project site. The Project would have no impact on this prominent scenic ridgeline.

Based on the above, Project implementation would not substantially damage scenic resources or other locally recognized desirable aesthetic natural features within a scenic highway and a less-than-significant impact would occur in this regard.

LIGHT AND GLARE

Threshold AES-5 Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Impact Statement 4.1-3 Implementation of the Project would result in new lighting similar to that of the adjacent single-family residential neighborhoods. The Project would create new sources of light or glare but these would not adversely affect day or nighttime views in the area. Thus, light and glare impacts would be less than significant.

Construction activities at the proposed Project site would take place during normal business hours. No new sources of daytime or nighttime light and glare would be created. No nighttime construction or lighting would occur. Therefore, this impact is considered less than significant.

On-site lighting would introduce new sources of light and glare to the Project site and surrounding areas. Proposed uses, particularly along the northeastern edges of the site, would be similar in nature to the nearby Southern Oaks residences to the east. The Project would include nighttime lighting that would comply with the Los Angeles County Rural Outdoor Lighting District Ordinance of the Zoning Code. Standards within the Rural Outdoor Lighting District seeks to promote dark skies for the enjoyment and health of humans and wildlife, while permitting reasonable uses of outdoor lighting for nighttime safety and security. The regulations include limitations on allowable light trespass, fully shielding outdoor lighting, maximum heights of fixtures, street lighting in rural areas, outdoor recreation facilities, and signs.

Per the standards within the Rural Outdoor Lighting District Ordinance, outdoor lighting would be fully shielded. The Project would not include any drop-down lenses, mercury vapor lights, or ultraviolet lights. No lighting developed as part of the Project would be cast directly outward into open space areas. Regarding the potential for lighting to affect adjacent open space areas, streetlights, the most dominant source of nighttime lighting, would be concentrated along streets in the interior of the development area, rather than along the edges of the site, and would not be visible to sensitive receptors. The highest street and building pad elevation will be about 100 feet lower than the western ridgeline separating the Project site development area from the open space areas to the west managed by the Mountains Recreation and Conservation Authority. Street lighting would not be visible to that open space area.

Therefore, the Project would not substantially alter the lighting character in surrounding communities and open space areas because of intervening topography and compliance with Rural Outdoor Lighting standards and would not interfere with the performance of off-site activities. As such, impacts related to lighting would be less than significant.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces, such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. The Project is anticipated to use building materials that are non-reflective in nature

and typical of residential development throughout the area. As such, the Project is not anticipated to have a significant impact associated with glare.

4. MITIGATION MEASURES

No potentially significant aesthetic impacts have been identified, and no mitigation measures are required.

5. CUMULATIVE PROJECT IMPACTS

Impact Statement 4.1-4 *The Project combined with the related projects would not result in substantial adverse effects related to aesthetics. Thus, cumulative aesthetics impacts would be less than significant.*

When evaluating cumulative aesthetic impacts, a number of factors must be considered. In order for a cumulative aesthetic impact to occur, the proposed elements of the related projects would need to be seen together or in proximity to each other. If the projects were not in proximity to each other, the viewer would not perceive them in the same scene. As shown in Figure 3-1, *Related Projects Location Map* the closest related projects would be Project Nos. 3 (Legacy Village), 13 (Lyons Canyon Ranch) and 14 (UCLA Film Archives).

Project No. 3 (Legacy Village) includes proposed 3,457 residential units and 884,000 square feet of commercial/office/retail space. Access to the Project No. 3 would be primarily from Magic Mountain Parkway and through the Mission Village project (Project No. 2). Pico Canyon Road is not proposed as a circulatory access route to Project No. 3, and, as a consequence, it would not contribute to significant cumulative impacts due to distance and intervening topography.

Project No. 13 (Lyons Canyon Ranch) includes approximately 235 acres of land in Lyons Canyon, north of the Towsley Canyon area, and includes the proposed development of 95 Single Family Detached Residential Units and 95 Active Senior Units. The project was approved by Los Angeles County, but was purchased by the City of Santa Clarita for open space purposes in September 23, 2014 including increased access and trail connections to existing City of Santa Clarita-owned open space at Rivendale Ranch. Therefore, related Project No. 13 would not be constructed. Furthermore, Project No.13 is located approximately one mile to the southeast of the Project site and, due to distance and topography, it would not contribute to significant cumulative impacts.

Project No. 14 (UCLA File Achieves) includes development of 250,000 square feet of office use for film archiving on approximately 60 acres along McBean Parkway in the City of Santa Clarita. Project No. 14 is located approximately two miles northeast of the Project site, across from the 1-5 Freeway. Due to distance, topography, and intervening development, it would not contribute to significant cumulative impacts.

Other related projects are not within proximity to the Project site and would not contribute to significant cumulative impacts. Furthermore, all related projects would be analyzed on a case-by-case basis to determine impacts on aesthetics, views, and light and glare. Such analyses would include the degree to which the introduction of new features or the loss of existing aesthetic elements would alter, degrade, or

contrast with the existing valued visual character of the area. The analyses would also include the change in ambient illumination levels and lighting spillover as a result of project sources. Therefore, it may be concluded that the Project would have a less than cumulative impact on aesthetics.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the project design features would ensure that impacts regarding aesthetics are less than significant.

4.2 AIR QUALITY

This section addresses the air emissions generated by the construction and operation of the Project. The analysis also addresses the consistency of the Project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan, and the Los Angeles County (County) General Plan. The analysis of Project-generated air emissions focuses on whether the Project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold. Calculation worksheets, assumptions, and model outputs used in the analysis are contained in Appendix B of this Draft EIR.

1. ENVIRONMENTAL SETTING

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment, either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States Environmental Protection Agency (USEPA) and are subject to emissions control requirements adopted by federal, state and local regulatory agencies. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds and nitrogen oxides (NO_X) under favorable meteorological conditions such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of ozone irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower the lung efficiency.

Volatile Organic Compounds (VOCs): VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State as toxic air contaminants. These are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons, as are architectural coatings. Emissions of VOCs themselves are not "criteria" pollutants; however, they contribute with NO_X to formation of O_3 and are regulated as O_3 precursor emissions.

Nitrogen Dioxide (NO_2) and Nitrogen Oxides (NO_x): NO_X is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO_2 and nitric oxide (NO), which can quickly oxidize in the atmosphere to form NO_2. Ambient air quality standards have been promulgated for NO_2, which is a reddish-brown, reactive gas. The principle form of NO_X produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO_2, creating the mixture of NO and NO_2 referred to as NO_X. Major sources of NO_X emissions include power plants, large industrial facilities, and motor vehicles. Emissions of NO_X are a precursor to the formation of ground-level ozone. NO_2 can potentially irritate the nose and throat, aggravate lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. According to the California Air Resources Board

(CARB), "NO_2 is an oxidizing gas capable of damaging cells lining the respiratory tract. Exposure to NO_2 along with other traffic-related pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children."[1] NO_2 also contributes to the formation of PM_{10}. The terms "NO_X" and "NO_2" are sometimes used interchangeably. However, the term "NO_X" is primarily used when discussing emissions, usually from combustion-related activities. The term "NO_2" is primarily used when discussing ambient air quality standards. More specifically, NO_2 is regulated as a criteria air pollutant under the Clean Air Act and subject to the ambient air quality standards, whereas NO_X and NO are not. In cases where the thresholds of significance or impact analyses are discussed in the context of NO_X emissions, it is based on the conservative assumption that all NO_X emissions would oxidize in the atmosphere to form NO_2.

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Sulfur Dioxide (SO_2): Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM_{10} and $PM_{2.5}$): The human body naturally prevents the entry of larger particles into the body. However, small particles including fugitive dust, with an aerodynamic diameter equal to or less than ten microns (PM_{10}) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), can enter the body and are trapped in the nose, throat, and upper respiratory tract. These small particulates could potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses.[2] Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

---

[1] *California Air Resources Board, "Nitrogen Dioxide – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/no2-1/no2-1.htm. Accessed September 2014.*

[2] *California Air Resources Board, "Particulate Matter – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm. Accessed September 2014.*

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

Regulatory Framework

A number of statutes, regulations, plans, and policies have been adopted that address air quality issues. The Project site and vicinity are subject to air quality regulations developed and implemented at the federal, state, and local levels.

Federal

Federal Clean Air Act

The Federal Clean Air Act (CAA) of 1963 was the first federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the USEPA is responsible for implementation of some portions of the CAA (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

The CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The CAA requires that the NAAQS be protective of human health, including protecting the health of sensitive populations such as asthmatics, children, and the elderly, and incorporate an adequate margin of safety.[3] The CAA also mandates that the state submit and implement a State Implementation Plan for areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The Clean Air Act identifies specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. **Table 4.2-1**, *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant.

The Project is located within the South Coast Air Basin (Basin), which is an area designated as non-attainment because it does not currently meet NAAQS for certain pollutants regulated under the Clean Air Act. The Clean Air Act sets certain deadlines for meeting the NAAQS within the Basin including the following: (1) 1-hour O_3 by the year 2010; (2) 8-hour O_3 by the year 2024;[4] (3) PM_{10} by the year 2006; and (4) $PM_{2.5}$ by the year 2015. On June 11, 2007, the USEPA reclassified the Basin as a federal "attainment" area for CO and

[3] *U.S. Environmental Protection Agency, "National Ambient Air Quality Standards," http://www.epa.gov/air/criteria.html. Accessed September 2014. Section 109 of the Clean Air Act requires standards be set at a level "requisite to protect the public health" with an "adequate margin of safety."*

[4] *The 8-hour ozone attainment deadline for the 1997 standard of 80 parts per billion is 2024. The 8-hour ozone attainment deadline for the 2008 standard of 75 parts per billion is 2032.*

Table 4.2-1

Ambient Air Quality Standards [a]

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
O_3	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.075 ppm (147 µg/m³)		
NO_2 [h]	1 Hour	0.18 ppm (338 µg/m³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m³)	None	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (56 µg/m³)		53 ppb (100 µg/m³)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry NDIR)	35 ppm (40 mg/m³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m³)		9 ppm (10 mg/m³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
SO_2 [i]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)[9]
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas) [i]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) [i]	—	
PM_{10}	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
$PM_{2.5}$	24 Hour	No Separate State Standard		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Lead [j,k]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[k]	Same as Primary Standard	
	Rolling 3-Month Average[k]	--		0.15 µg/m³		
Visibility Reducing Particles [l]	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates (SO_4)	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride [j]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Table 4.2-1 (Continued)

Ambient Air Quality Standards

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]

[a] *California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.*

[b] *National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter ($\mu g/m^3$) is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.*

[c] *Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.*

[d] *Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.*

[e] *National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.*

[f] *National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.*

[g] *Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.*

[h] *To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.*

[i] *On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.*

[j] *The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

[k] *The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.*

[l] *In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.*

Source: California Air Resources Board, Ambient Air Quality Standards (6/4/13), http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed September 2014.

approved the CO maintenance plan for the Basin.[5] The Basin previously exceeded the NAAQS for PM_{10}, but has met the NAAQS at all monitoring stations and the USEPA approved the request for redesignation to attainment effective July 26, 2013.[6] The Basin does not meet the NAAQS for O_3 and $PM_{2.5}$ and is classified as

[5] *"Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule." Federal Register 72 (11 May 2007):26718-26721*

[6] *Federal Register, Vol. 78, No. 123, June 26, 2013, 38223-38226.*

being in non-attainment for these pollutants. The County portion of the Basin is designated as non-attainment for lead; however, this is due to localized emissions from two lead-acid battery recycling facilities located in the City of Vernon and the City of Industry, which are the only two lead-acid battery recycling facilities in the County.[7] The attainment status of the County portion of the Basin with respect to the NAAQS is summarized in **Table 4.2-2**, *South Coast Air Basin Attainment Status (Los Angeles County)*.

Table 4.2-2

South Coast Air Basin Attainment Status (Los Angeles County)

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A [a]	Non-attainment
Ozone (8-hour standard)	Non-attainment – Extreme	Non-attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM_{10} (24-hour standard)	Attainment	Non-attainment
PM_{10} (annual standard)	N/A	Non-attainment
$PM_{2.5}$	Non-attainment – Moderate	Non-attainment
Lead	Non-attainment	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A [b]

N/A = not applicable

[a] *The NAAQS for 1-hour ozone was revoked on June 15, 2005 for all areas except Early Action Compact areas.*

[b] *In 1990 the CARB identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the CARB does not monitor or make status designations for this pollutant.*

Source: United States Environmental Protection Agency, The Green Book Non-attainment Areas for Criteria Pollutants, http://www.epa.gov/oaqps001/greenbk/index.html. Accessed September 2014; California Air Resources Board, Area Designations Maps/State and National, http://www.arb.ca.gov/desig/adm/adm.htm. Accessed September 2014.

State

California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS are set at a level protective of human health, particularly that of infants and children, and incorporate an adequate margin of safety.[8] Table 4.2-1 shows the CAAQS currently in effect for each of the criteria

[7] *South Coast Air Quality Management District, Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012.*

[8] *California Air Resources Board, "Final Report – Adequacy of California Ambient Air Quality Standards," http://www.arb.ca.gov/research/aaqs/caaqs/ad-aaqs/ad-aaqs.htm. Accessed September 2014. The Children's Environmental Health Protection Act (Senate Bill 25, Escutia, 1999) required CARB to review the standards to determine if they "adequately protect public health, including infants and children, with an adequate margin of safety."*

pollutants as well as the other pollutants recognized by the State. As shown in Table 4.2-1, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants. In general, the California standards are more health protective than the corresponding NAAQS. In addition, the California Air Resources Board (CARB) has established standards for other pollutants recognized by the State, such as sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Table 4.2-2 provides a summary of the Basin's attainment status with respect to state standards. The Basin is designated as in attainment for the California standards for sulfates and unclassified for hydrogen sulfide and visibility-reducing particles. Because vinyl chloride is a carcinogenic toxic air contaminant, the CARB does not classify attainment status for this pollutant.

California Air Resources Board Air Quality and Land Use Handbook

The CARB published a draft version of the *Air Quality and Land Use Handbook* on February 17, 2005, to serve as a general guide for considering impacts to sensitive receptors from facilities that emit toxic air contaminant (TAC) emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet ofa distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California (CARB Rules Chapter 1, Section 2025, subsection (h)).[9] The requirements were amended in December 2010 and apply to nearly all diesel fueled trucks and buses with a gross vehicle weight rating greater than 14,000 pounds.

In addition to limiting exhaust from idling trucks, CARB has promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models.

[9] *Final Regulation Order, Amendments to the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use On-Road Diesel-Fueled Vehicles, http://www.arb.ca.gov/msprog/onrdiesel/documents/TBFinalReg.pdf. Accessed September 2014.*

Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), and the largest fleets began compliance on January 1, 2014 (CARB Rules Chapter 9, Section 2449).[10] Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (e.g., engine retrofits) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turnovers or retrofits be fully implemented by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

Regional

South Coast Air Quality Management District

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the nondesert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Basin is a subregion of the SCAQMD jurisdiction. While air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. SCAQMD and CARB have adopted the 2012 AQMP which incorporates the latest scientific and technological information and planning assumptions, including the Southern California Association of Governments (SCAG) 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and updated emission inventory methodologies for various source categories.[11] The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012. Control measure IND-01 was approved for adoption and inclusion in the Final 2012 AQMP at the February 1, 2013 Governing Board meeting.

Therefore, the 2012 AQMP is the most appropriate plan to use for consistency analysis. The AQMP builds upon other agencies' plans to achieve federal standards for air quality in the Basin. It incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. The 2012 AQMP builds upon improvements in previous plans, and includes new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. In addition, it highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the time frames allowed under the federal Clean Air Act.

The 2012 AQMP's key undertaking is to bring the Basin into attainment with NAAQS for 24-hour $PM_{2.5}$ by 2014. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2023 8-hour ozone standard deadline with new measures designed to reduce reliance on the CAA Section

[10] *Final Regulation Order, Regulation for In-Use Off-Road Diesel-Fueled Fleets, http://www.arb.ca.gov/regact/2010/offroadlsi10/finaloffroadreg.pdf. Accessed September 2014.*

[11] *South Coast Air Quality Management District, 2012 Air Quality Management Plan, (February 2013), http://www.aqmd.gov/aqmp/2012aqmp/index.htm. Accessed August 2013.*

182(e)(5) long-term measures for NO_X and VOC reductions. SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2012 AQMP consist of four components: (1) Basin-wide and Episodic Short-term $PM_{2.5}$ Measures; (2) Contingency Measures; (3) 8-hour Ozone Implementation Measures; and (4) Transportation and Control Measures provided by the Southern California Association of Governments (SCAG). The Plan includes eight short-term $PM_{2.5}$ control measures, 16 stationary source 8-hour ozone measures, 10 early action measures for mobile sources and seven early action measures are proposed to accelerate near-zero and zero emission technologies for goods movement related sources, and five on-road and five off-road mobile source control measures. In general, the District's control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of zero- near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources.

The SCAQMD published a *CEQA Air Quality Handbook* (the Handbook) in November 1993 to provide local governments with guidance for analyzing and mitigating Project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in CEQA documents and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the Handbook with the *Air Quality Analysis Guidance Handbook*.[12] While this process is underway, the SCAQMD recommends that the lead agency avoid using the screening tables in the Handbook's Chapter 6, because the tables were derived using an obsolete version of CARB's mobile source emission factor inventory, and the trip generation characteristic of the land uses identified in these screening tables were based on the fifth edition of the ITE Trip Generation Manual, instead of the most current ninth edition. Additionally, the lead agency should avoid using the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L in the Handbook. The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod).[13] To assist the lead agency, this EIR follows SCAQMD's recommendations.

In June 2003, the SCAQMD published a document called the *Localized Significance Threshold Methodology* that is intended to provide voluntary guidance for lead agencies in analyzing localized air quality impacts from projects.[14] The document was revised in July 2008 to incorporate additional guidance regarding $PM_{2.5}$ emissions[15] The *Localized Significance Threshold Methodology* was also used in the preparation of this EIR. The SCAQMD has also adopted land use planning guidelines in the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*[16] which, like the CARB Handbook, also considers impacts to

[12] *South Coast Air Quality Management District, Air Quality Analysis Guidance Handbook, http://www.aqmd.gov/ceqa/hdbk.html. Accessed August 2013.*

[13] *South Coast Air Quality Management District, CEQA Air Quality Handbook, (1993), http://www.aqmd.gov/ceqa/oldhdbk.html. Accessed August 2013.*

[14] *South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (June 2003, revised July 2008), http://www.aqmd.gov/ceqa/handbook/LST/LST.html. Accessed August 2013.*

[15] *South Coast Air Quality Management District, Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology, (October 2006), http://www.aqmd.gov/ceqa/handbook/pm2_5/pm2_5.html. Accessed August 2013.*

[16] *South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, (May 2005), http://www.aqmd.gov/prdas/aqguide/aqguide.html. Accessed August 20, 2013.*

sensitive receptors from facilities that emit TACs. SCAQMD's distance recommendations are the same as those provided by CARB (e.g., the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to manage potential health risk. These guidelines are voluntary initiatives recommended for consideration by local planning agencies.

Several SCAQMD rules adopted to implement portions of the AQMP may apply to the Project. For example, SCAQMD Rule 403, Fugitive Dust, requires implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. Also, SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents, which lowers the emissions of odorous compounds. The Project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which may apply to the Project:

- **Rule 402 – Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 – Fugitive Dust:** This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA. Watering is a common measure to control fugitive dust. According to the SCAQMD, the application of water every 3 hours to disturbed areas within a construction site has a control efficiency of 61 percent.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for different specific sources. The following is a list of rules which may apply to the Project:

- **Rule 1113 – Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- **Rule 1146.2 –** Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NOX emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

- **Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations:** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM_{10} emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization for the majority of the Southern California region and is the largest Metropolitan Planning Organization in the nation. In 2008, SCAG released the Regional Comprehensive Plan which addresses regional issues such as housing, traffic/transportation, water, and air quality. The Regional Comprehensive Plan serves as an advisory document to local agencies in the Southern California region for their information and voluntary use for preparing local plans and handling local issues of regional significance. The Regional Comprehensive Plan presents a vision of how southern California can balance air quality with growth and development by including goals such as: reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and stated ambient air quality standards as soon as practicable; reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas; and to minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to TACs, particulates (PM_{10} and $PM_{2.5}$) and CO.

In April 2012, SCAG adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*, which addresses regional development and growth forecasts and forms the basis for the land use and transportation control portions of the AQMP. The growth forecasts are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The Regional Transportation Plan/Sustainable Communities Strategy and AQMP are based on projections originating within local jurisdictions.

SCAG's Sustainable Communities Strategy provides specific strategies for successful implementation. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and education, recreation and culture and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles. It is anticipated that SCAG will update the Sustainable Communities Strategy in 2016 and evaluate progress in implementing the strategies.

Local

Los Angeles County General Plan 2035 and Los Angeles County Santa Clarita Valley Area (1990 Plan and "One Valley, One Vision" 2012 Plan)

Local jurisdictions, such as the County, have the authority and responsibility to reduce air pollution through their police power and decision-making authority. Specifically, the County is responsible for the assessment

and mitigation of air emissions resulting from its land use decisions. The County is also responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

The Draft County of Los Angeles General Plan 2035, January 2014, provides the fundamental basis for the County's land use and development policy, and represents the basic community values, ideals, and aspirations to govern a shared environment through 2035. The General Plan addresses all aspects of development including public health, land use, community character, transportation, economics, housing, air quality, and other topics. The General Plan sets forth objectives, policies, standards, and programs for land use and new development, Circulation and Public access, and Service Systems for the Community as a whole.

The site is located within a Hillside Management Area identified on the Special Management Areas Policy Map of the County General Plan Open Space and Conservation Element. The 1990 Santa Clarita Valley Area Plan shows the site designated under the land use categories Hillside Management, Urban 2, and Floodway/Floodplain. Although not applicable to the current Project, the "One Valley, One Vision" land use designations are RL-5, rural land (1 dwelling unit per 5 acres), and RL-20, rural land (1 dwelling unit per 20 acres) and the property is overlain with the Santa Susanna Significant Ecological Area (SEA). The site is zoned A-2-2 (Heavy Agricultural Zone, 2-acre minimum lot size).

Although the General Plan is only in draft format, and the Project is not subject to the draft General Plan goals and policies that may change prior to adoption, applicable measures of the Los Angeles County General Plan Air Quality element are specified below as being the most current standards. These measures will be implemented in connection with development of the Project.[17]

Goal AQ 1 Protection from exposure to harmful air pollutants.

- **Policy AQ 1.1** Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.
- **Policy AQ 1.2** Encourage the use of low or no volatile organic compound (VOC) emitting materials.
- **Policy AQ 1.3** Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.
- **Policy AQ 1.4** Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxins from identified mobile and stationary sources.

[17] *Los Angeles County Department of Regional Planning, 2014. Public Review Draft Los Angeles County General Plan 2035. http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter8_2014.pdf. Accessed July 12, 2014.*

Goal AQ 2 The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning.

- **Policy AQ 2.1** Encourage the application of design and other appropriate measures when siting sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways.

- **Policy AQ 2.2** Participate in, and effectively coordinate the development and implementation of community and regional air quality programs.

Although the 2012 Santa Clarita Valley Area Plan ("One Valley, One Vision") is adopted, the Project is not subject to this Area Plan because the Project application was pending prior to adoption. However, measures of the 2012 Santa Clarita Valley Area Plan Air Quality Element are specified below. These measures will be implemented in connection with development of the Project.[18]

Goal CO-7: Air Quality Clean air to protect human health and support healthy ecosystems.

Objective CO-7.1 Reduce air pollution from mobile sources.

- **Policy CO-7.1.1** Through the mixed land use patterns and multi-modal circulation policies set forth in the Land Use and Circulation Elements, limit air pollution from transportation sources.

- **Policy CO-7.1.2** Support the use of alternative fuel vehicles.

- **Policy CO-7.1.3** Support alternative travel modes and new technologies, including infrastructure to support alternative fuel vehicles, as they become commercially available.

Objective CO 7.2 Apply guidelines to protect sensitive receptors from sources of air pollution as developed by the CARB, where appropriate.

- **Policy CO-7.2.1** Ensure adequate spacing of sensitive land uses from the following sources of air pollution: high traffic freeways and roads; distribution centers; truck stops; chrome plating facilities; dry cleaners using perchloroethylene; and large gas stations, as recommended by CARB.

Objective CO 7.3 Coordinate with other agencies to plan for and implement programs for improving air quality in the South Coast Air Basin.

- **Policy CO-7.3.1** Coordinate with local, regional, state and federal agencies to develop and implement regional air quality policies and programs.

[18] *Los Angeles County Department of Regional Planning, 2012. Santa Clarita Valley Area Plan One Valley One Vision 2012. http://planning.lacounty.gov/assets/upl/project/ovov_2012-ch_04_os.pdf. Accessed July 12, 2014.*

The applicable measure of the 1990 Santa Clarita Valley Area Plan Environmental Resources Management Element is specified below. This measure will be implemented in connection with development of the Project.[19]

> **Natural Resources Policy 1.8** Promote air quality that is compatible with health, well-being, and enjoyment of life. The public nuisance, property and vegetative damage, and deterioration of aesthetic qualities that result from air pollution contaminants should be prevented to the greatest degree possible.

Existing Conditions

Regional

The Project site is located within the South Coast Air Basin, which is shown in **Figure 4.2-1**, *Boundaries of the South Coast Air Quality Management District and Federal Planning Areas*. The Basin is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, as it is a coastal plain with connecting broad valleys and low hills.

The Basin lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The usually mild climatological pattern is interrupted by periods of hot weather, winter storms, or Santa Ana winds. The extent and severity of pollutant concentrations in the Basin is a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

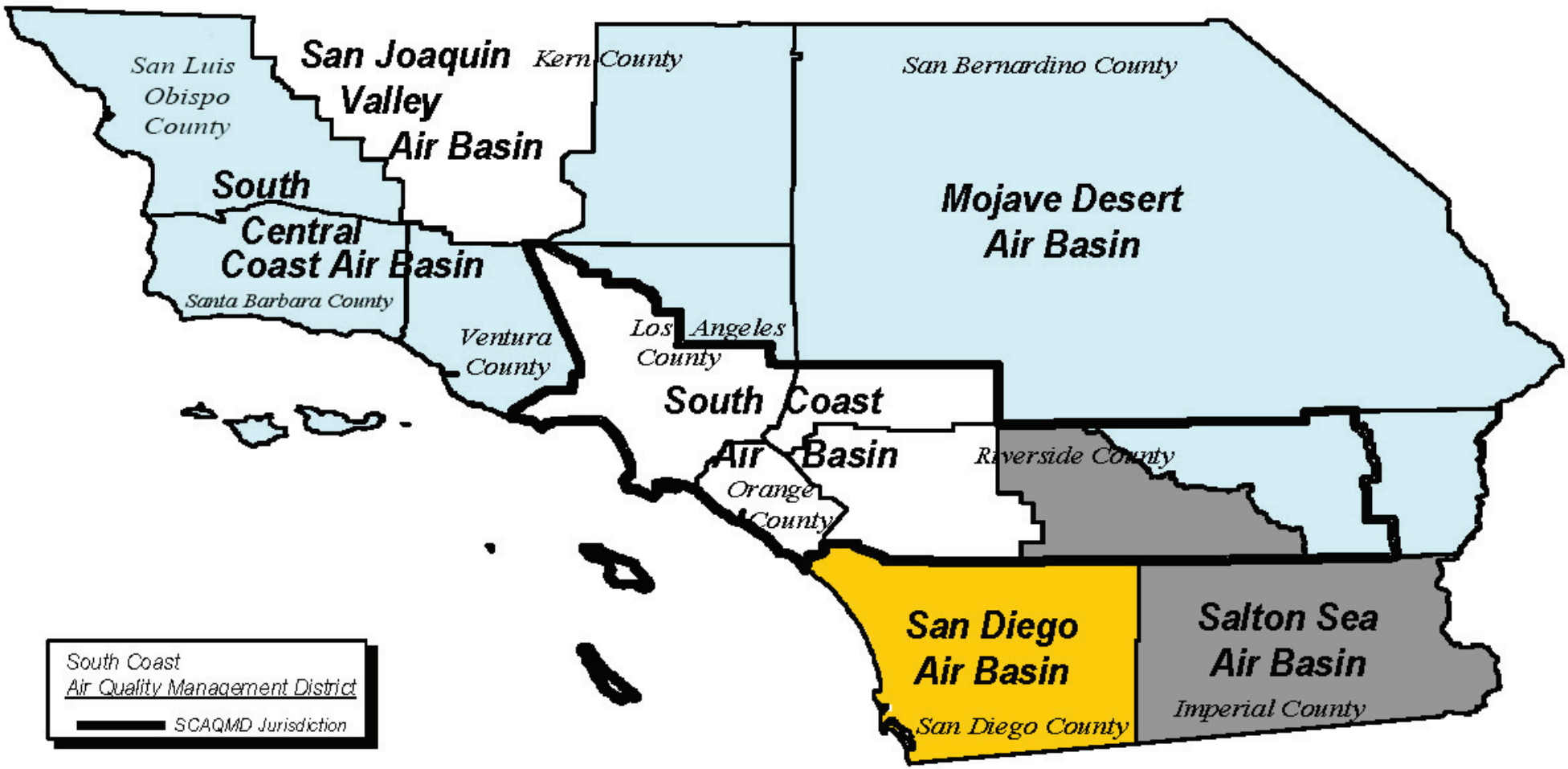
The Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone (O3), which is a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the greatest air pollution impacts throughout the Basin typically occur from June through September. This condition is generally attributed to the emissions occurring in the Basin, light winds, and shallow vertical atmospheric mixing. These factors reduce the potential for pollutant dispersion causing elevated air pollutant levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Concentrations of O_3, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert.

Local

Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the Basin and has divided the Basin into air monitoring areas. The monitoring station most representative of the Project site is

[19] *Los Angeles County. 1990. Santa Clarita Valley Area Plan, Comprehensive Update. http://planning.lacounty.gov/assets/upl/data/pd_santa-clarita.pdf. Accessed July 12, 2014.*



- PRELIMINARY WORKING DRAFT -

PCR

N

Boundaries of the South Coast Air Quality Management District and Federal Planning Areas

Aidlin Hills

Source: South Coast Air Quality Management District, 2014.

FIGURE

4.H-1

This page is intentionally blank.

the Santa Clarita station (Santa Clarita Valley). Criteria pollutants monitored at this station include O_3, CO, NO_2, and PM_{10},. The most representative monitoring station for $PM_{2.5}$ is the Reseda Monitoring Station (West San Fernando Valley), for SO_2 the Burbank Monitoring Station (East San Fernando Valley) and for Pb the Los Angeles Monitoring Station (Central Los Angeles). The most recent data available from these monitoring stations encompass the years 2008 to 2012.[20] The data, shown in **Table 4.2-3**, *Pollutant Standards and Ambient Air Quality Data*, show the following pollutant trends:

Ozone (O_3). During the 2009 to 2013 reporting period, the maximum 1-hour ozone concentration was recorded in 2011 at 0.144 ppm. During this period, the California standard of 0.09 ppm was exceeded between 18 and 57 times annually, with the highest number of exceedences in 2009. The maximum eight-hour ozone concentration recorded during the reporting period was 0.122 ppm, reported in 2009 and 2011. During the reporting period, the National 8-hour average standard of 0.075 ppm was exceeded between 23 and 64 times annually with the highest number of exceedances in 2009. The California standard of 0.07 ppm was exceeded between 44 and 81 times annually, with the highest number of exceedances occurring in 2012.

Particulate Matter (PM_{10}). The highest recorded concentration during the period of 2009 to 2013 was 56 micrograms per cubic meter ($\mu g/m^3$), which was recorded in 2009. During this same time period, the California PM_{10} standard was exceeded between zero and one time annually, with the highest number of exceedances in 2009. The national PM_{10} standard was not exceeded during this period. PM_{10} is monitored every six days coincident to a national schedule; thus, PM_{10} exceedances are based on the number of days that sampling occurred. The maximum recorded arithmetic mean concentration of 23.4 $\mu g/m^3$ was recorded in 2009.

Particulate Matter($PM_{2.5}$). Maximum $PM_{2.5}$ concentrations varied between 39.8 and 41.8 between 2009 and 2013. During these years the National standard was exceeded between one and two times per year with the maximum number of exceedances occurring in 2012. The highest annual arithmetic mean was 11.4 $\mu g/m^3$, recorded in 2009.

Carbon Monoxide (CO). The highest 1-hour CO concentration was 2 ppm, reported in 2009 and 2010 and the highest 8-hour CO concentration was 1.4 ppm, reported in 2009. Neither the California nor the National CO standards were exceeded during the 2009 to 2013 reporting period.

Nitrogen Dioxide (NO_2). The highest 1-hour concentration of NO_2 was recorded in 2012 and was 0.07 ppm. The highest annual arithmetic mean was 0.015 ppm, recorded in reporting year 2009. Neither the California nor the National NO_2 standards were exceeded during the reporting period.

Sulfur Dioxide (SO_2). The highest 1-hour concentration of SO_2 was 0.015 ppm, recorded in 2010. The highest 24-hour concentrations was 0.004 ppm recorded in 2010. No exceedances of the California or National SO_2 standards were recorded during this reporting period. Maximum 24-hour concentration are no longer reported in the Santa Clarita region as of 2010.

[20] *http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year, Accessed July 14, 2014.*

Table 4.2-3

Pollutant Standards and Ambient Air Quality Data [a]

Pollutant/Standard	2009	2010	2011	2012	2013
Ozone					
O_3 (1-hour)					
Maximum Concentration (ppm)	0.140	0.126	0.144	0.134	0.134
Days > CAAQS (0.09 ppm)	57	18	31	45	30
O_3 (8-hour)					
Maximum Concentration (ppm)	0.122	0.105	0.122	0.112	0.104
4th High 8-hour Concentration (ppm)	0.103	0.087	0.101	0.102	0.094
Days > CAAQS (0.07 ppm)	77	44	52	81	58
Days > NAAQS (0.075 ppm)	64	23	30	57	40
Particulate Matter (PM_{10})					
PM_{10} (24-hour)					
Maximum Concentration (μg/m³)	56	40	45	37	43
Days > CAAQS (50 μg/m³)	1(1.9%)	0	0	0	0
Days > NAAQS (150 μg/m³)	0	0	0	0	0
PM_{10} (Annual Average)					
Annual Arithmetic Mean (50 μg/m³)	23.4	21.0	20.8	19.6	21.6
Particulate Matter ($PM_{2.5}$)					
$PM_{2.5}$ (24-hour)					
Maximum Concentration (μg/m³)	39.9	40.7	39.8	41.6	41.8
Days > NAAQS (35 μg/m³)	1(0.9)	1(1.0%)	1(0.9%)	2	1(0.8%)
$PM_{2.5}$ (Annual)					
Annual Arithmetic Mean (15 μg/m³)	11.4	10.2	10.2	10.5	9.71
Carbon Monoxide					
CO (1-hour)					
Maximum Concentration (ppm)	2	2	1.2	1.3	1.3
CO (8-hour)					
Maximum Concentration (ppm)	1.4	1.1	0.8	1.1	0.8
Nitrogen Dioxide					
NO_2 (1-hour)					
Maximum Concentration (ppm)	0.06	0.0593	0.0601	0.0661	0.0654
NO_2 (Annual)					
Annual Arithmetic Mean (ppm)	0.0151	0.0143	0.0133	0.0136	0.0144
Sulfur Dioxide					
SO_2 (1-hour)					
Maximum Concentration (ppm)	0.01	0.0149	0.009	0.0065	0.0065
SO_2 (24-hour)					
Maximum Concentration (ppm)	0.003	0.0041	--	--	--

Table 4.2-3 (Continued)

Pollutant Standards and Ambient Air Quality Data

Pollutant/Standard	2009	2010	2011	2012	2013
Lead					
Maximum 30-day average ($\mu g/m^3$)	0.02	0.02	0.012	0.014	0.013
Maximum calendar quarter ($\mu g/m^3$)	0.01	0.01	0.011	0.011	0.011

Source: South Coast Air Quality Management District, Historical Air Quality Data Studies, 2009-2013. http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year; U.S. Environmental Protection Agency, Monitor Report Values, CO 2011-2013, http://www.epa.gov/airdata/ad_rep_mon.html.

Notes:

ppm = parts per million; $\mu g/m^3$= micrograms per cubic meter; AAM Annual Arithmetic Mean; n/a = not applicable; -- = Data not available

[a] *Data presented for CO_2, NO_2, PM_{10}, and O_3 is from the Santa Clarita Valley Monitoring Station (SRA-13). $PM_{2.5}$ data is from the West San Fernando Valley Monitoring Station (SRA-6). Data for is Pb is from the Central LA Monitoring Station (SRA-1). Data for is SO_2 is from the East San Fernando Monitoring Station (SRA-7).*

Sulfur Dioxide (SO_2). The highest 1-hour concentration of SO_2 was 0.015 ppm, recorded in 2010. The highest 24-hour concentrations was 0.004 ppm recorded in 2010. No exceedances of the California or National SO_2 standards were recorded during this reporting period. Maximum 24-hour concentration are no longer reported in the Santa Clarita region as of 2010.

Lead (Pb). The highest 30-day average concentration of lead was 0.02 $\mu g/m^3$ recorded in 2009, which is below the California 1.5 $\mu g/m^3$ standard. The highest calendar quarter concentration was 0.011, in 2011, 2012, and 2013, which is below the National 1.5 $\mu g/m^3$ standard.

Sulfates. The Basin is currently designated as attainment with respect to the State standard for sulfates.

Visibility Reducing Particles. The Basin is currently designated as "unclassified" with respect to the State standard for visibility reducing particles. Continuous monitoring is not currently performed within the Basin for this standard.

Hydrogen Sulfide. The Basin is currently designated as "unclassified" with respect to the State standard for hydrogen sulfide. The CARB does not perform or require ambient monitoring of this pollutant.

Vinyl Chloride. The Basin is currently designated as "unclassified" with respect to the State standard for vinyl chloride. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the CARB does not perform or require ambient monitoring for this pollutant.

Air Toxics

In addition to criteria pollutants, the SCAQMD periodically assesses levels of toxic air contaminants (TACs) in the Basin. A TAC is defined by California Health and Safety Code Section 39655:

> *"Toxic air contaminant" means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a toxic air contaminant.*

Diesel particulate matter, which is emitted in the exhaust from diesel engines, was listed by the State as a toxic air contaminant in 1998. Diesel particulate matter has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. Diesel particulate matter consists of fine particles (fine particles have a diameter <2.5 μm), including a subgroup of ultrafine particles (ultrafine particles have a diameter <0.1 μm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to diesel particulate matter may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Diesel particulate matter levels and resultant potential health effects may be higher in close proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, diesel particulate matter exposure may lead to the following adverse health effects: (1) Aggravated asthma; (2) Chronic bronchitis; (3) Increased respiratory and cardiovascular hospitalizations; (4) Decreased lung function in children; (5) Lung cancer; and (6) Premature deaths for people with heart or lung disease.[21,22]

Between April 2004 and March 2006, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES III), which is a follow-up to previous two air toxics studies conducted in the Basin. The MATES III Final Report was issued in September 2008. The study, based on actual monitored data throughout the Basin, consisted of several elements. These included a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize carcinogenic risk across the Basin from exposure to TACs. The study applied a two-kilometer (1.24-mile) grid over the Basin and reported carcinogenic risk within each grid space (covering an area of four square kilometers or 1.54 square miles). The study concluded that the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Basin equates to a background cancer risk of approximately 1,200 in 1,000,000 primarily due to diesel exhaust. Approximately 85 percent of the risk is attributed to diesel particulate emissions, approximately 10 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately five percent of all airborne carcinogenic risk is attributed to stationary sources (which include industries and other certain businesses, such as dry cleaners and chrome plating operations). The study also found lower ambient concentrations of most of the measured air toxins compared to the levels measured in the previous study conducted during 1998 and 1999. Specifically, benzene and 1,3-butadiene,

[21] *California Air Resources Board, Diesel and Health Research, http://www.arb.ca.gov/research/diesel/diesel-health.htm. Accessed September 2014.*

[22] *California Air Resources Board, Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, (2008), http://www.arb.ca.gov/ch/communities/ra/westoakland/documents/factsheet0308.pdf. Accessed September 2014.*

pollutants generated mainly from vehicles, were down 50 percent and 73 percent, respectively.[23] The reductions were attributed to air quality control regulations and improved emission control technologies.

As part of MATES III, the SCAQMD prepared maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps represent the estimated number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years). The 2-kilometer (1.24-mile) grid in which the Project site is located is provided in **Figure 4.2-2**, *Background Inhalation Cancer Risk for Project Site Area*. As shown there, the estimated cancer risk for that location is estimated at 238 cancers per million, while the vast majority of the area ranges between 251 to 500 cancers per million.[24] Generally, the risk from air toxics is lower near the coastline and increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports).

Sensitive Receptors and Locations

Some population groups, including children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to air pollution than others. Sensitive land uses in close proximity to the Project site are shown in **Figure 4.2-3**, *Closest Sensitive Receptor Locations*, and include the following:

Residential community east of the Project site. Single-family residences adjacent to the Project site.

Residential community north of the Project site. Single-family residences approximately 800 feet north of the Project site at its closest point.

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* provides a set of screening questions that address impacts with regard to air quality. These questions are as follows:

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 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?

[23] *South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2008) 6-1, 6-2.*

[24] *http://www3.aqmd.gov/webappl/matesiii/ Accessed July 12, 2014.*

e) Create objectionable odors affecting a substantial number of people?

The *State CEQA Guidelines* (Section 15064.7) provide that, when available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The potential air quality impacts of the Project are, therefore, evaluated according to thresholds developed by the SCAQMD in the CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent guidance, discussed below. These thresholds generally incorporate the checklist questions contained in Appendix G of the *State CEQA Guidelines*.

For purposes of this analysis, the Project would have a significant impact on air quality if it would:

Threshold AIR-1: Conflict with or obstruct implementation of the applicable air quality plan? (refer to Impact Statement 4.2-1);

Threshold AIR-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (refer to Impact Statement 4.2-2);

Threshold AIR-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (refer to Impact Statement 4.2-3);

Threshold AIR-4: Expose sensitive receptors to substantial pollutant concentrations? (refer to Impact Statement 4.2-4); or

Threshold AIR-5: Create objectionable odors affecting a substantial number of people? (refer to Impact Statement 4.2-5).

Consistency with Applicable Air Quality Plans (AIR-1)

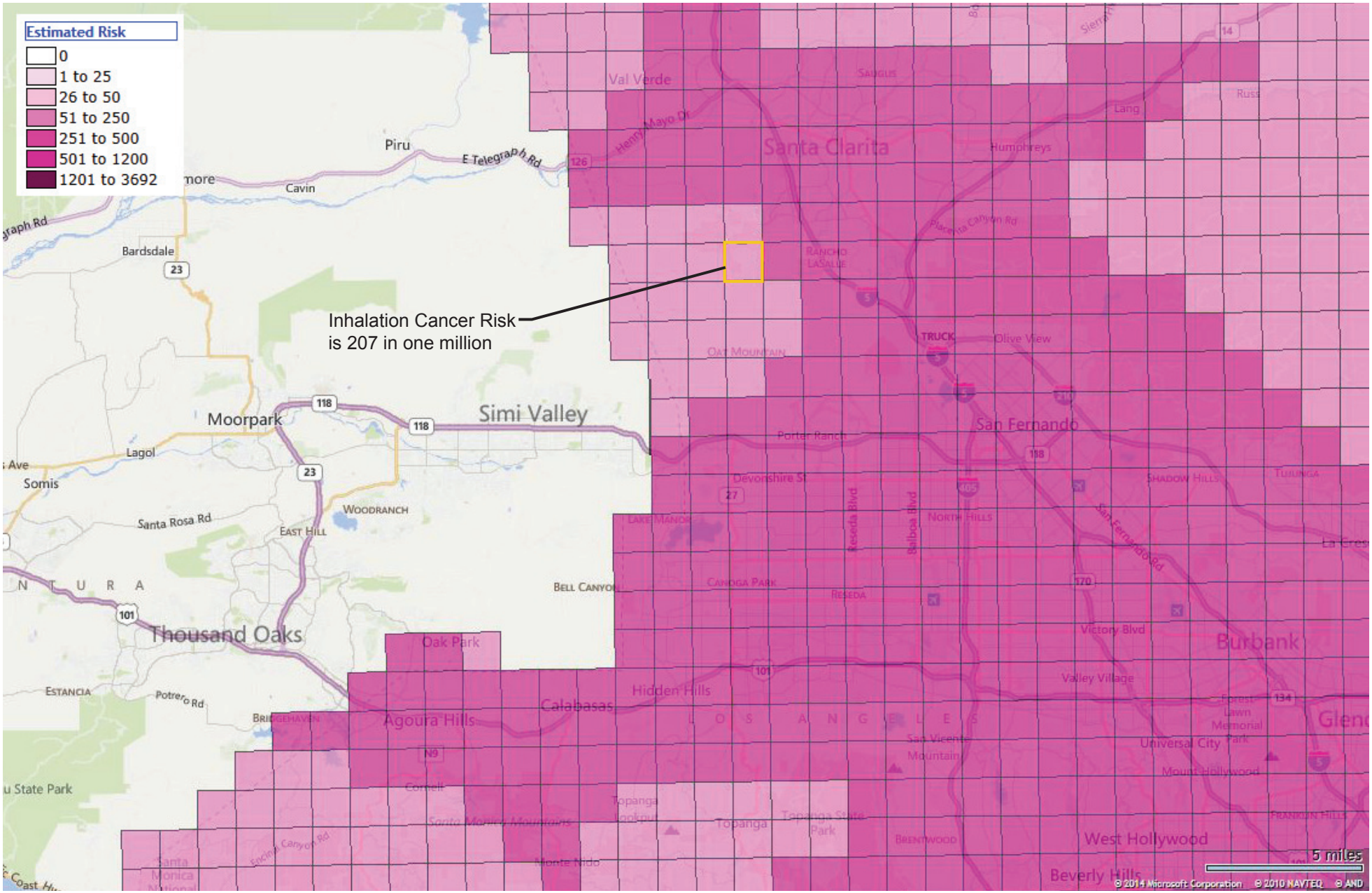
The Project will be assessed to determine if it would conflict with or obstruct implementation of the applicable air quality plan.

Construction Emission Thresholds (AIR-2, AIR-3, AIR-4)

The County uses the significance thresholds and analysis methodologies in the SCAQMD CEQA Air Quality Handbook and Air Quality Analysis Guidance Handbook to evaluate Project impacts. The numerical emission thresholds are based on the recognition that the Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to project public health.25 Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established numeric thresholds of significance specific to construction activity. Based on criteria set forth in the SCAQMD Handbook, the Project would have a significant impact with regard to construction emissions if the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 100 pounds per day for NO_X, (2) 75 pounds a day for

[25] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.*



- PRELIMINARY WORKING DRAFT -

PCR

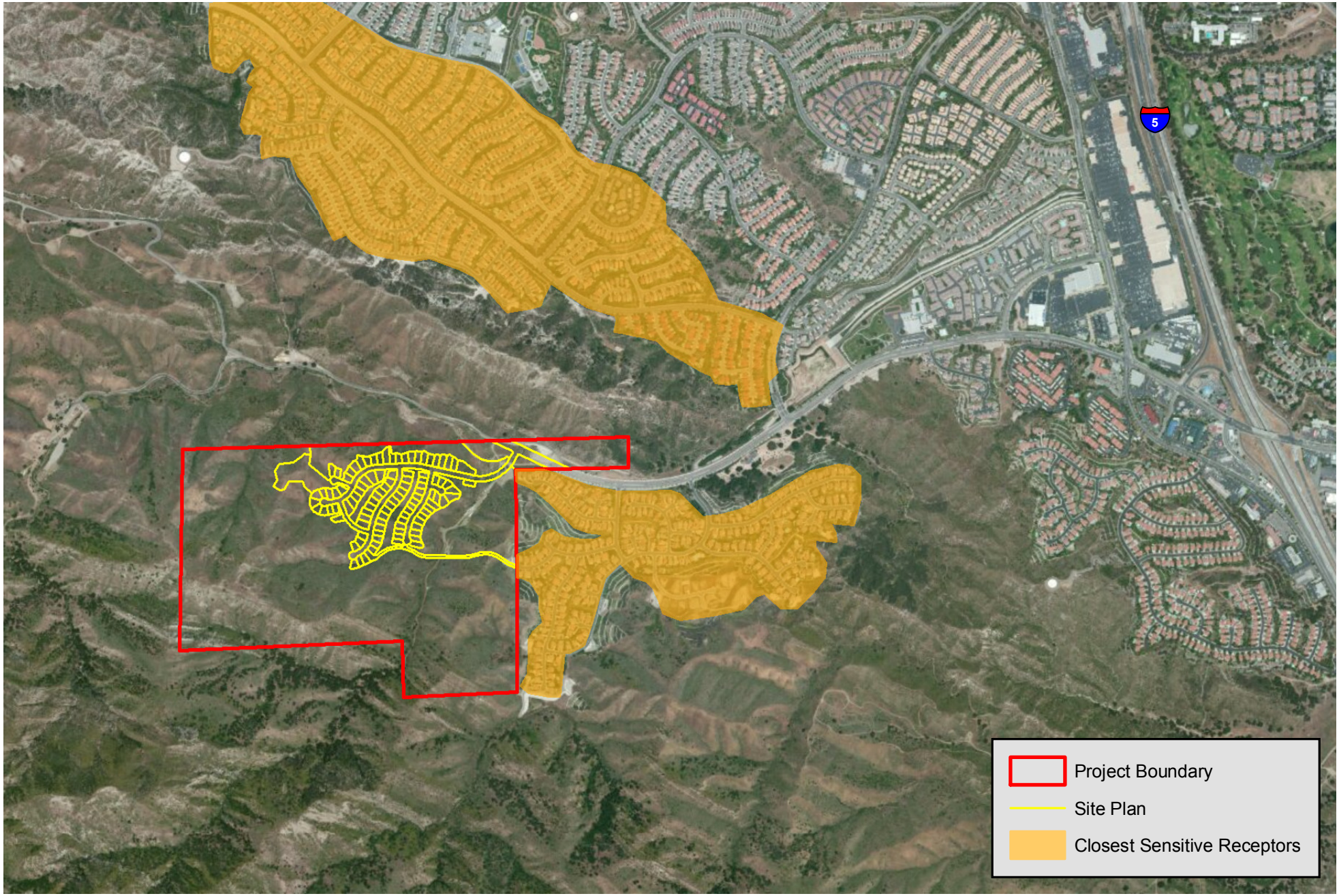
Background Inhalation Cancer Risk for Project Site Area

Aidlin Hills

Source: South Coast Air Quality Management District, 2014.

FIGURE

4.2-2



PCR

N

0 1,500 3,000 Feet

Closest Sensitive Receptor Locations

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2014.

FIGURE

4.2-3

VOC, (3) 150 pounds per day for PM_{10}, (4) 55 pounds per day $PM_{2.5}$ (5) 550 pounds per day for CO, and (6) 150 pounds per day for SO_X.[26]

In addition, the SCAQMD has developed methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following would occur:

- Maximum daily localized emissions are greater than the applicable Localized Significance Thresholds (LST), resulting in predicted ambient concentrations in the vicinity of the Project site greater than the most stringent ambient air quality standards for CO and NO_2.[27]
- Maximum localized PM_{10} or $PM_{2.5}$ emissions during construction are greater than the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the site to exceed 50 $\mu g/m^3$ over five hours (SCAQMD Rule 403 control requirement).

Operational Emission Thresholds (AIR-2, AIR-3, AIR-4)

The SCAQMD has established numerical emission thresholds of significance for operations. The numerical emission thresholds are based on the recognition that the Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to project public health.[28] As shown in Table 4.2-2, the Basin is designated as extreme non-attainment for ozone. The SCAQMD has established numeric thresholds of significance based in part on Section 182(e) of the Clean Air Act which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone.[29] The SCAQMD converted this significance level to pounds per day for ozone precursor emissions (10 tons per year × 2,000 pounds per ton ÷ 365 days per year = 55 pounds per day). The numeric thresholds for other pollutants are also based on federal stationary source significance levels. Based on criteria set forth in the SCAQMD *CEQA Air Quality Handbook* and *Air Quality Analysis Guidance Handbook*, the Project would have a significant impact with regard to operational emissions if any of the following would occur:

Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for VOC; (2) 55 pounds per day for NOX, (3) 550 pounds per day for CO; (4) 150 pounds per day for PM10 or SOX; (5) 55 pounds a day for PM2.5.[30]

- Maximum daily on-site emissions are greater than the LST look-up tables, resulting in predicted ambient concentrations in the vicinity of the Project site greater than the most stringent ambient air quality standards for CO and NO_2.[31]

---

[26] *http://www.aqmd.gov/ceqa/handbook/signthres.doc.*

[27] *South Coast Air Quality Management, LST Methodology: http://www.aqmd.gov/ceqa/handbook/lst/Method_final.pdf.*

[28] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.*

[29] *South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-1.*

[30] *South Coast Air Quality Management District, Air Quality Analysis Guidance Handbook, May 2005 http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4 Accessed June 2014.*

[31] *South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (June 2003, revised July 2008), http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2. Accessed June 2014.*

- Maximum localized PM_{10} or $PM_{2.5}$ emissions during operation are greater than the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the site to exceed 2.5 $\mu g/m^3$ over 24-hours (SCAQMD Rule 1303 requirement).
- The Project causes an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively, at an intersection or roadway within one-quarter mile of a sensitive receptor.
- The Project would not be compatible with City of Chino, SCAQMD and SCAG air quality policies.

Toxic Air Contaminants (AIR-4)

The SCAQMD *CEQA Air Quality Handbook* states that the determination of the significance of toxic air contaminants shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the toxic air contaminants to sensitive receptors;
- The quantity, volume and toxicity of the contaminants expected to be emitted;
- The likelihood and potential level of exposure; and
- The degree to which Project design will reduce the risk of exposure.

Based on these guidelines, the Project would have a significant impact from toxic air contaminants, if:

- On-site stationary sources emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million or an acute or chronic hazard index of 1.0.[32]
- Hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety.
- The Project would be occupied primarily by sensitive individuals within 0.25 mile of any existing facility that emits air toxic contaminants which could result in a health risk for pollutants identified in District Rule 1401.[33]

As discussed previously under subsection 3.a., construction impacts from TACs are evaluated qualitatively because of the sporadic and temporary nature of construction emissions. The Project would have no substantial sources of TACs emissions associated with operations; therefore, impacts are evaluated quantitatively due to the very minimal potential for long-term operational TAC emissions.

Odors (AIR-5)

The Project will be assessed to determine if it would create objectionable odors affecting a substantial number of people.

---

[32] *South Coast Air Quality Management District, Risk Assessment Procedures for Rules 1401 and 212, (July, 2005). http://www.aqmd.gov/docs/default-source/planning/risk-assessment/risk-assessment-procedures-v-7.pdf?sfvrsn=4, Accessed June 2014.*

[33] *South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 – Determining the Air Quality Significance of a Project, (1993).*

Methodology

Air Quality Plan

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., ozone and $PM_{2.5}$). The SCAQMD's 2012 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, which provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the Regional Comprehensive Plan and AQMP are based, in part, on projections originating with county and city general plans.

The 2012 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP are considered consistent with the AQMP.

Construction

Mass daily emissions during construction were compiled using CalEEMod, which is an emissions estimation/evaluation model developed by CARB and the SCAQMD that is based, in part, on SCAQMD *CEQA Air Quality Handbook* guidelines and methodologies. The CalEEMod model separates the construction process into subphases based on activity type. Construction would begin with grading with emissions resulting from fugitive dust, earth moving, equipment exhaust, and worker commute exhaust. Later subphases would include utility trenching, street paving, building construction, and architectural coating. Emissions from these subphase of construction would include equipment exhaust from heavy-duty equipment, VOC emissions from architectural coating and asphalt paving, and worker commute exhaust.

Construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project site. In addition, fugitive dust emissions would result from grading and construction activities. Project construction is anticipated to begin in late 2015 and conclude in mid-2019. Construction would begin with grading operations lasting for approximately 7 months. The Project site is located in the foothills and would require approximately 1,600,000 cubic yards of cut material, with all cut material being used as fill material within the site. Accordingly, the Project grading plan would balance the grading quantities such that no import or export of soil would be required. Utility and infrastructure installation would begin in mid-2016 and would be completed by early 2017. Utility and infrastructure installation would start with sewer (about four months), followed by storm drain (about six months), water (about six months), street hardscape (about two months) and other utilities (about four months). The majority of these steps would overlap. Project housing construction is estimated to begin in early 2017 and would be constructed in multiple phases over an approximately two-and-one-half year period. In total, construction would require approximately 45 months. A complete listing of the construction equipment by phase and the duration of construction activities is included in Appendix B.

This construction schedule represents a reasonable worst-case scenario assuming that construction is able to proceed at the earliest planned date and that market conditions support the construction of new homes. The amount of construction equipment used and the duration of construction activity could have a substantial effect upon the amount of construction emissions, concentrations and the resulting impacts occurring at any one time. As such, the emission forecasts provided reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Construction may commence at a later date or construction could occur over a longer period of time than that analyzed in this EIR. If either or both of these happen, construction impacts would be less than those analyzed because a more energy- efficient and cleaner-burning construction equipment fleet mix is expected in the future and construction impacts would be spread out for a longer time period, thus reducing the level of daily emissions.

Mobile source emissions, primarily of NO_X and PM, would result from the use of construction equipment such as bulldozers, wheeled loaders, and cranes. During the finishing phase, the application of architectural coatings (i.e., paints) and other building materials would release VOCs. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources. The equipment mix and construction duration for each stage is detailed in Appendix B.

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's localized significance threshold (LST) methodology, which utilizes on-site mass emission rate look-up tables and, where appropriate, Project specific modeling. As the Project is larger than five acres in size, Project specific modeling was conducted using the USEPA AERMOD dispersion model with meteorological data from the SCAQMD Santa Clarita monitoring station. Maximum on-site emissions from the various phases were used in the modeling. Sensitive receptors were placed at the nearest sensitive receptors as discussed previously. A complete listing of the construction equipment by phase, construction phase duration, emissions estimation model, and dispersion model input assumptions used in this analysis is included within the emissions calculation worksheets in Appendix B.

Operations

The CalEEMod software was also used to compile the mass daily emissions estimates from mobile sources (vehicular traffic), area sources (natural gas usage, landscape equipment, and consumer products), and stationary sources (pump engines) that would generate emissions during long-term Project operations. In calculating mobile-source emissions, the CalEEMod region-specific trip length assumptions and average daily trip estimates were used to arrive at vehicle miles traveled, which are multiplied by applicable EMFAC2011 emission factors. Area source emissions were also calculated using CalEEMod region-specific assumptions for single family dwelling units. The CalEEMod tool uses landscaping equipment emission factors from the CARB OFFROAD2011 model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.[34] Stationary source emissions were estimated in CalEEMod for

[34] *California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003), http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed November 2013.*

two pump engines, rated at 20 horsepower each, that would be used for emergency purposes. The CalEEMod model output and worksheets for calculating regional operational daily emissions are provided in Appendix B.

The localized effects from the on-site portion of daily emissions were evaluated at nearby sensitive receptor locations according to the SCAQMD's LST methodology, for NO_x, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum on-site emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA) and distance to the nearest sensitive receptor. Sources of on-site emissions associated with operation of the Project include natural gas combustion for heating or hot water, use of landscaping equipment, and architectural coatings. The SCAQMD LSTs are based on Source Receptor Area 13 (Santa Clarita Valley) for a five acre site with sensitive receptors located within 25 meters of operation activity. As mentioned previously, the SCAQMD's LST Methodology was developed for project sites that are five acres or smaller. Although the Project site is larger than five acres, the use of the five acre thresholds provides for a conservative analysis, as the screening levels are directly related to the acreage (i.e., larger project areas have larger screening levels). The shortest distance available in SCAQMD's LST lookup threshold is 25 meters; therefore localized construction emissions are evaluated using the LST lookup threshold at a 25–meter distance. Since the maximum allowable daily emissions in the screening tables generally increase as project size increases, if the project's localized operational emissions do not exceed the LST thresholds for a five-acre project, the project would be considered to have a less than significant impact on localized air quality.

Emissions of CO are produced in greatest quantities from motor vehicle combustion and are usually concentrated at or near ground level because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. The potential for the Project to cause or contribute to the formation of off-site CO hotspots is evaluated based on prior dispersion modeling of the four busiest intersections in the Air Basin. That modeling has been conducted by the SCAQMD for its CO Attainment Demonstration Plan in the AQMP. The analysis compares the intersections with the greatest peak-hour traffic volumes that would be impacted by the Project to the intersections modeled by the SCAQMD. Project-impacted intersections with peak-hour traffic volumes that are lower than the intersections modeled by the SCAQMD, in conjunction with lower background CO levels, would result in lower overall CO concentrations compared to the SCAQMD modeled values in its AQMP.

Toxic Air Contaminants (TAC) Impacts (Construction and Operations)

The potential for the Project to cause impacts from TACs are evaluated for Project construction and operation. The greatest potential for TAC emissions during construction would be related to diesel particulate matter emissions associated with heavy-duty equipment during demolition, excavation, and grading activities. The SCAQMD does not generally consider diesel particulate matter emissions from temporary construction activities to contribute substantially to an incremental increase in diesel-related cancer risks because of the short-term and temporary nature of construction activities. Construction activities associated with the Project would be sporadic, transitory, and short term in nature (approximately 24 months). The assessment of cancer risk is typically based on a 70-year exposure period. Given the temporary duration of the construction phase of the Project, construction impacts associated with TACs are addressed qualitatively.

Operation of the Project would not include substantial sources of TAC emissions. The Project may result in a limited number of trucks visiting the site for periodic deliveries typical of residential and office developments, such as refuse trucks and delivery trucks for consumer goods. However, the number of trucks visiting the Project site are expected to be minimal for a Project of this small scale. Therefore, construction impacts associated with TACs are addressed qualitatively.

Operation of the Project would locate new sensitive receptors on the site. CARB and the SCAQMD recommend (but do not necessarily require) a minimum separation distance between new sensitive land uses and sources of TACs. For example, based on guidance from CARB and the SCAQMD,[35] it is recommended that lead agencies avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles per day. The guidance documents are advisory and are not binding on lead agencies. The guidance recognizes that land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.[36] Operation of the Project would not include new sources of TAC emissions identified in the CARB and SCAQMD siting recommendations. The potential for operational TAC impacts on the new sensitive receptors on the Project site are assessed based on consistency with the CARB and SCAQMD minimum separation distance recommendations. Potential sources of off-site TAC emissions are identified by conducting a search of local business records and permitting records available from the SCAQMD Facility Information Details (FINDs) database.

Odor Impacts (Construction and Operations)

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) as necessary. The screening-level analysis consists of reviewing the Project's site plan and Project description to identify new or modified odor sources. If it is determined that the Project would introduce a potentially significant new odor source, or modify an existing odor source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine Project impacts.

Project Design Features

The following project design features (PDFs) are reflected in the Project plans and would be included in the Mitigation Monitoring and Reporting Program (MMRP) for the Project. These features would reduce the potential for air pollutant emissions due to Project operations. The following PDFs result in a reduction in air pollutant emissions and are proposed as part of the Project, although to be as conservative as possible, this analysis does not include any quantitative reductions based upon implementation of these PDFs. Energy efficiency and water saving measures, such as those below, would reduce the Project's demand for electricity used for lighting, household appliances, heating, ventilation, and air conditioning (HVAC) systems, and potable water supply, conveyance, treatment, and distribution. Reducing the Project's demand for electricity would reduce electricity-related air pollutant emissions from fossil-fuel combustion (e.g., natural gas, coal) from the local utility provider. These measures would have co-benefits of reducing the Project's

[35] *California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, (2005); South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, (2005).*

[36] *California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, p. 4 (2005).*

operational greenhouse gas (GHG) emissions (refer to **Section 4.6**, *Greenhouse Gas Emissions*, for a discussion of the Project's GHG emissions).

PDF 2-1: Apply energy-saving technologies and components to reduce the Project's electrical use-profile including but not limited to the following:

- Optimizing the solar orientation of buildings to maximize passive and active solar design techniques;
- Installation of energy-efficient/low-energy light fixtures, energy efficient heating and cooling equipment, and energy-efficient appliances (e.g., ENERGY STAR-rated or equivalent).

PDF 2-2: Reduce the energy associated with heating and cooling loads through the use of such techniques as high-albedo (or reflective) roofing such as light-colored, "white" roofs. These roofing technologies increase the reflectance of the roofs, and thus reduce emissions from heating and cooling equipment. In addition, these roofs mitigate the heat island effect by reducing the absorption of solar energy.

PDF 2-3: Residential units shall be constructed with solar-ready rooftops that provide for the future installation of on-site solar photovoltaic (PV) or solar water heating (SWH) systems. The building design documents shall show an allocated Solar Zone and the pathway for interconnecting the PV or SWH system with the building electrical or plumbing system. The Solar Zone is a section of the roof that has been specifically designated and reserved for the future installation of a solar PV system, solar water heating system, and/or other solar generating system. The Solar Zone must be kept free from roof penetrations and have minimal shading.

PDF 2-4: Use commissioning to ensure that the Project's lighting, mechanical, heating, cooling, ventilation, and other energy and water-consuming systems are operating at their designed levels of efficiency (commissioning is a process to verify that the Project's energy-related systems are installed, calibrated, and perform according to Project requirements).

PDF 2-5: Residential landscaping shall comply with the County's Tree Planting ordinance (Section 22.52.2130(C)(5)), which requires that each lot containing a single-family residence contain a minimum of two 15-gallon trees, at least one of which shall be from the drought-tolerant plant list.

PDF 2-6: Utilize trees and other landscaping where appropriate to provide appropriate shading of the Project's structures and walkways, thereby reducing cooling energy demands and mitigating the heat island effect. Trees and other landscaping also act as a means to capture (sequester) CO_2 from the atmosphere.

PDF 2-7: Reduce water usage and demand by installing water efficient fixtures, such as faucets, showerheads, and toilets meeting or exceeding the USEPA WaterSense® or equivalent standards. On-site reductions in water use would reduce the amount of energy necessary to transport the water to the site, and thus reduce the Project's water-related energy demand and associated emissions.

PDF 2-8: Comply with applicable provisions of the CALGreen code to increase water efficiency through the use of drought-tolerant landscaping and drought-tolerant, native, and fire-retardant trees where feasible. Comply with applicable provisions of the CALGreen code for the installation of low-water consumption irrigation systems.

PDF 2-9: Incorporate recyclable and biodegradable materials where appropriate and economically feasible. Materials may include, but are not limited to, gypsum board, insulation, steel, ceramic tile, countertops, trim, and carpet/carpet padding.

Analysis of Project Impacts

Air Quality Plan Consistency

Threshold AIR-1: The project would have a significant impact on air quality if it would conflict with or obstruct implementation of the applicable air quality plan.

Impact Statement 4.2-1: Although the Project would result in construction and operational air quality impacts, Project development would not conflict with applicable policies and growth projections of air quality plan. Therefore, the impact of the Project with respect to the air quality plan would be less than significant.

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., ozone and PM_{10}). The Project would be subject to the SCAQMD's 2012 AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the SCAG. A project is consistent with the AQMP if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP.

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development and the environment. SCAG serves as the federally designated MPO for the southern California region. With regard to air quality planning, SCAG has prepared the *2012-2035 Regional Transportation Plan/Sustainable Communities Stratgety* (RTP/SCS) that form the basis for the land use and transportation control portions of the AQMP, and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP. Both the RTP/SCS and AQMP strategy incorporate projections from local planning documents.

The 2012 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, Project, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

The Project site is located within an unincorporated section of the County and is located within Santa Clarita Valley Area Plan. The Project site is zoned A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size) and designated as Hillside Management, Urban 2, and Floodway/Floodplain in the 1990 Santa Clarita Valley Area Plan, which are consistent with the proposed Project site usage. Therefore, the Project would be consistent with the growth projections as contained in the Los Angeles General Plan and applicable 1990 Santa Clarita Valley Area Plan and consistent with the RTP/SCS and AQMP growth projections. Therefore, there are no impacts related to consistency with applicable plans and policies as a result of Project implementation.

The Draft 2035 County of Los Angeles General Plan was prepared in response to California state law requiring that each city and county adopt a long-term comprehensive general plan. This plan must be integrated, internally consistent, and present goals, objectives, policies, and implementation guidelines for decision makers to use. The County has included an Air Quality Element as part of its General Plan to aid the greater Los Angeles region in attaining the state and federal ambient air quality standards at the earliest feasible date, while still maintaining economic growth and improving the quality of life. The County's Air Quality Element acknowledges the inter-relationships between transportation and land use planning in meeting mobility and clean air goals. Because the General Plan is only in draft format, and the Project is not subject to the draft General Plan goals and policies that may change prior to adoption, and since the Project has been accounted for in regional population and transportation projections, it is concluded that the Project would be consistent with County air quality policies.

The Project is consistent with the applicable rules and regulations and the population, housing and employment assumptions which were used in development of the 2012 AQMP. Although the Project would result in construction and operational air quality impacts, no significant impacts would occur as a result of Project development with respect to compatibility with applicable air quality plans. Therefore, the impact of the Project with respect to air quality plans would be less than significant, and no mitigation measures would be required.

Air Quality Standards

Threshold AIR-2: The project would have a significant impact on air quality if it would violate any air quality standard or contribute substantially to an existing or projected air quality violation

Impact Statement 4.2-2: *Because the Project's peak day NOx emissions during construction exceed the applicable SCAQMD daily emissions threshold, the Project may cause or contribute to a violation of ambient air quality standards. Impacts regarding remaining criteria pollutants (VOC, CO, SO_2, PM_{10}, and $PM_{2.5}$) would be below the emissions thresholds and would be less than significant during construction. Operation of the Project would not exceed the daily emissions threshold for any regulated criteria pollutant and thus would not violate air quality standards or contribute substantially to an existing or projected air quality violation. Therefore, impacts related to regional emissions from construction would be potentially significant, although impacts from operation of the Project would be less than significant.*

Regional Construction

Construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and

from the Project site. In addition, fugitive dust emissions would result from debris removal and construction activities. Mobile source emissions, primarily NO_x, would result from the use of construction equipment such as dozers, loaders, and cranes. During the finishing phase, paving operations and the application of architectural coatings (i.e., paints) and other building materials would release volatile organic compounds. Construction emissions can vary substantially from day-to-day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

In order to provide a conservative analysis, it is assumed that all construction activities would be completed within 45 months. Since the housing would be built based on demand, this timeframe could be extended, but would not be shortened. This is of particular importance, as construction emissions are directly related to the duration and intensity of construction activities. Emission rates representative of certain stages of construction (i.e., construction worker trips and delivery vehicle trips) can also decrease over time in response to the use of vehicles or equipment that emit lower levels of pollutant emissions. Assumptions for each construction phase and the equipment that would be used during Project construction are provided in Appendix B of this Draft EIR.

The emissions levels in **Table 4.2-4** *Maximum Unmitigated Regional Construction Emissions (pounds per day)*, represent the highest daily emissions projected to occur on any one day. As presented in Table 4.2-4, construction-related daily maximum regional emissions would not exceed the SCAQMD daily significance thresholds for VOC, CO, SO_2, PM_{10}, or $PM_{2.5}$. However, maximum regional emissions would exceed the SCAQMD daily significance thresholds for NO_X during periods of heavy use of heavy-duty construction equipment. Therefore, regional construction emissions resulting from the Project would result in a significant short-term impact for NO_X emissions.

Since construction would exceed the regional significance threshold for NO_X, the Project could contribute to temporary NO_2-related health impacts. Because NO_X is an ozone precursor emission, the Project could contribute to temporary impacts related to regional ozone formation and related ozone health impacts. As described previously, potential health effects could result from exposure to pollutant concentrations in excess of applicable ambient air quality standards for ozone and NO_2, including but, not limited to, irritation of the lungs and breathing passages, coughing and pain in the chest and throat, increased susceptibility to respiratory infections and reduced ability to exercise, especially in people with asthma. However, due to the dispersive effects of meteorology (wind, temperature, humidity, etc.), an exceedance of a mass emissions numeric indicator from Project-related activities does not necessarily result in exposure of sensitive receptors to actual ground-level concentrations in excess of health-protective levels. Localized concentrations of Project-related NO_X emissions at nearby sensitive receptor locations are discussed under Impact Statement 4.2-4. These emission forecasts reflect a specific set of conservative assumptions in which the entire Project would be built out over 45 months. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period,

maximum daily emissions could be reduced because, for example, of (1) the availability of a more modern, cleaner burning, construction equipment fleet mix, or (2) a less intensive buildout schedule (lower daily emissions occurring over a longer time interval).

Table 4.2-4

Maximum Unmitigated Regional Construction Emissions [a]
(pounds per day)

Construction Activity	VOC	NO_X	CO	SO_2	PM_{10} [b]	$PM_{2.5}$ [b]
Grading (2015)	11	**124**	75	<1	10	7
Grading (2016)	10	**115**	72	<1	10	6
Grading & Utilities (2016)	13	**136**	88	<1	12	8
Utilities (2016)	2	21	16	<1	2	1
Utilities & Streets (2016)	5	43	32	<1	3	3
Utilities & Streets (2017)	5	40	32	<1	3	2
Utilities & Streets & Bldg. Constr. (2017)	10	77	74	<1	8	5
Utilities & Bldg. Constr. (2017)	7	56	58	<1	7	4
Bldg. Constr. (2017)	5	37	42	<1	5	3
Bldg. Constr. & Coating (2017)	11	40	48	<1	6	3
Bldg. Constr. & Coating (2018)	10	36	45	<1	6	3
Bldg. Constr. & Coating (2019)	10	32	43	<1	5	3
Maximum Regional Emissions	**13**	**136**	**88**	**<1**	**12**	**8**
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(62)	36	(462)	(150)	(138)	(47)
Exceed Threshold?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Values that exceed the thresholds are shown in bold with a shaded background. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix B.*

[b] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

Source: PCR Services Corporation, 2015

Regional Operations

Regional air pollutant emissions associated with Project operations would be generated by the consumption of natural gas, use of consumer products, use of landscaping equipment, maintenance and testing activities for the two pump engines, and by the operation of on-road vehicles. Criteria pollutant emissions associated with these sources were calculated using CalEEMod. As shown in **Table 4.2-5**, *Maximum Unmitigated Regional Operational Emissions (pounds per day)*, regional emissions resulting from operation of the Project would not exceed the applicable thresholds for VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$. As a result, impacts related to regional emissions from operation of the Project would be less than significant.

Mitigation Measures

The Project would potentially exceed the regional construction threshold for NO_X emissions and as a result, would have potentially significant impacts during construction for NO_X emissions. The primary generator of NO_X emissions would be the use of heavy-duty construction equipment. As a result, the following mitigation measures would be required to reduce construction-related emissions:

Table 4.2-5

Maximum Unmitigated Regional Operational Emissions [a]
(pounds per day)

Emission Source	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile	3	9	35	<1	7	2
Natural Gas	<1	1	<1	<1	<1	<1
Area Sources	8	<1	8	<1	<1	<1
Stationary Sources	<1	1	<1	<1	<1	<1
Total Net	**12**	**11**	**44**	**<1**	**7**	**2**
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(43)	(44)	(506)	(150)	(143)	(53)
Exceed Threshold?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix B.*

Source: PCR Services Corporation, 2014

Mitigation Measure 4.2-1 Prior to the issuance of grading permits, the Permittee shall submit evidence to the County Department of Regional Planning that off-road diesel-powered heavy-duty construction equipment greater than 50 horsepower used during grading activities of Project construction meet or exceed the CARB and USEPA Tier 3 off-road emissions standards for heavy-duty equipment.

Mitigation Measure 4.2-2 Prior to the issuance of grading permits, the Permittee shall submit evidence to the County Department of Regional Planning that all heavy-duty diesel-powered equipment in use and/or refueled at the Project site shall use the most current grade of ultra-low sulfur diesel (ULSD) fuel approved by CARB and available in the South Coast Air Basin.

Mitigation Measure 4.2-3 Prior to the issuance of grading permits, the Permittee shall submit evidence, such as contractor agreements, training, or instructional materials, to the County Department of Regional Planning that truck and equipment idling and queuing time shall be limited to five minutes or less, when equipment is not in active use, in accordance with the CARB Airborne Toxic Control Measure.

Mitigation Measure 4.2-4 The Permittee shall utilize construction equipment having the lowest appropriate horsepower rating for the intended job. The Project Contractor shall be responsible for field inspection sign-off and submittal of compliance certification reports to the County Department of Regional Planning at a frequency determined by the County.

Mitigation Measure 4.2-5 The Permittee shall utilize construction equipment operating on-site that is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules. The Project Contractor shall be responsible for field inspection sign-off and submittal of maintenance documentation to the County Department of Regional Planning at a frequency determined by the County.

Mitigation Measure 4.2-6 The Permittee shall prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices. This prohibition shall be specified in contractor agreements and subject to routine maintenance checks or inspections. The Project Contractor shall be responsible for field inspection sign-off and submittal of compliance certification reports to the County Department of Regional Planning at a frequency determined by the County.

Mitigation Measure 4.2-7 The use of all construction equipment shall be suspended during a second-stage smog alert in the immediate vicinity of the Project site (e.g., smog alert affecting the Santa Clarita Valley).

Cumulatively Considerable Increase of any Nonattainment Criteria Pollutant

Threshold AIR-3: The project would have a significant impact on air quality if it would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Statement 4.2-3: *Construction of the Project would not result in emissions that exceed the federal or state ambient air quality standards for VOC, PM_{10}, and $PM_{2.5}$, but would result in emissions that potentially exceed the threshold for NO_X. Therefore, construction would result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment, and impacts would be potentially significant. Operation of the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is nonattainment under applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshols for ozone precursors). Therefore, operational impacts would be less than significant.*

Construction

As shown in Table 4.2-4, regional construction emissions of VOC, CO, SO_2, PM_{10} and $PM_{2.5}$ associated with the Project would not exceed the SCAQMD thresholds; unmitigated regional NO_X emissions are projected to exceed the threshold. VOC and NOx are precursors to ozone. Since the Project would potentially exceed the NO_X threshold, the Project's contribution to cumulative impacts to air quality would be potentially significant for regional NO_X during the grading construction subphase and the overlapping grading and utility trenching construction subphases.

Operations

As shown above in Table 4.2-5, regional emissions of VOC, NO_X, CO, SO_2, PM_{10} and $PM_{2.5}$ from the operation of the Project would not exceed applicable emission thresholds. As the Project would not exceed these thresholds, operation of the Project would not result in a cumulatively considerable increase in criteria pollutants for which the Basin is in non-attainment. Therefore, operation of the Project would result in less than significant impacts.

Mitigation Measures

Refer to Mitigation Measures 4.2-1 to 4.2-7. No additional mitigation measures are necessary.

Expose Sensitive Receptors to Substantial Pollutant Concentrations

Threshold AIR-4: The project would have a significant impact on air quality if it would expose sensitive receptors to substantial pollutant concentrations.

Impact Statement 4.2-4: *On-site construction emissions from the Project would not exceed the localized significance thresholds for CO, PM_{10}, and $PM_{2.5}$, but would potentially exceed the thresholds for NO_X. Therefore, construction would result in potentially significant localized impacts for NO_X. Operation of the Project would not expose sensitive receptors to substantial pollutant concentrations, as operational emissions would not exceed the localized significance thresholds for NO_X, CO, PM_{10}, and $PM_{2.5}$. Therefore, operation of the Project would result in less than significant localized impacts. The Project would not contribute to the formation of CO hotspots, and impacts would be less than significant. The Project would not result in substantial toxic air contaminant emissions and would result in less than significant impacts.*

Localized Construction

Impacts were determined based on increases in off-site concentrations predicted by dispersion modeling and background ambient monitoring data. Separation distances between on-site construction emission sources and off-site receptor locations were taken into account in the dispersion modeling. The localized construction air quality analysis was conducted using the SCAQMD Localized Significance Threshold methodology. The results of the dispersion modeling are presented in **Table 4.2-6**, *Maximum Unmitigated Localized Construction Dispersion Modeling Analysis*. As shown, maximum NO_2 concentrations during construction activities would potentially exceed the allowable thresholds at the closest sensitive receptors for the maximum 1-hour and 98th percentile 1-hour standards. As such, localized air quality impacts during construction would be significant for NO_2 and mitigation measures would be required.

Table 4.2-6

Maximum Unmitigated Localized Construction Dispersion Modeling Analysis [a]

Pollutant [a]	Averaging Period	Project Concentration (ug/m^3)	Ambient Background (ug/m^3)	Total (ug/m^3)	Threshold (ug/m^3)	Exceed Threshold?
CO	1-hr	183.8	2,289	2,473	23,000	NO
CO	8-hr	54.4	1,259	1,313	10,000	NO
NO_2	1-hr	238.3	124.0	362.3	339	**YES**
NO_2	1-hr 98th Percentile [b]	139.6	89.3	228.9	188	**YES**
PM_{10}	24-hr	3.45	—	3.45	10.4	NO
$PM_{2.5}$	24-hr	2.34	—	2.34	10.4	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix B.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

Source: PCR Services Corporation, 2015

Localized Operations

The estimated on-site daily operational emissions of NOx, PM_{10}, $PM_{2.5}$, and CO were compared to the applicable screening thresholds, which are based on site acreage and distance to closest sensitive receptor. The localized operational air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to determine the localized operational emissions thresholds for the Project. The unmitigated maximum daily localized emissions and the localized significance thresholds are presented in **Table 4.2-7,** *Maximum Unmitigated Localized Operational Emissions (pounds per day)*. As shown, maximum localized operation emission estimates would not exceed the LSTs for NOx or CO, PM_{10} and $PM_{2.5,}$ and impacts would be less than significant.

Table 4.2-7

Maximum Unmitigated Localized Operational Emissions [a]
(pounds per day)

Emission Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Natural Gas	1	<1	<1	<1
Area Sources	<1	8	<1	<1
Stationary Sources	1	<1	<1	<1
Total Net	**2**	**8**	**<1**	**<1**
Localized Significance Threshold [b]	246	1,644	3	2
Over/(Under)	(244)	(1,636)	(3)	(2)
Exceed Threshold?	**NO**	**NO**	**NO**	**NO**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix B.*

[b] *The SCAQMD LSTs are based on Source Receptor Area 13 (Santa Clarita Valley) for a five acre site with sensitive receptors located adjacent to the construction activity.*

Source: PCR Services Corporation, 2014

Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be diesel particulate matter emissions associated with heavy equipment usage during grading activities. In addition, incidental amounts of toxic substances such as oils, solvents, and paints would be used. These substances would comply with applicable SCAQMD rules for their manufacture and use. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively short-term construction schedule of 45 months, and given that the majority of the construction activity would be located far from sensitive receptors (the approximate center of the construction activity on the Project site would be about 1,300 feet or one-quarter mile from the nearest sensitive receptor), the Project would not result in a long-term (i.e., 70 years) substantial source of TAC emissions, with no residual emissions after construction, and corresponding individual cancer risk. As such, Project-related toxic emission impacts during construction would be less than significant. With respect to operational activity, the SCAQMD recommends that health risk assessments be conducted for projects that would attract substantial numbers of diesel trucks and/or

generate substantial sources of diesel particulate matter (e.g., truck stops and warehouse distribution facilities)

and has provided guidance for analyzing mobile source diesel emissions.[37] According to the guidance, the Project would not generate truck trips that would be considered a substantial source of diesel particulates. In addition, typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. Minimal emissions of air toxics may result from the Project land uses (e.g., architectural coating, household consumer products). Toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed land uses within the Project site. In addition, most uses of such substances would be incidental and periodic. Based on the primarily residential uses expected on the site, a detailed health risk assessment is not warranted and potential impacts associated with the release of TACs would be less than significant.

For projects that include on-site sensitive receptors, the SCAQMD recommends that a health risk assessment be performed when siting new sensitive receptors within 500 feet of a freeway or urban road with 100,000 vehicles or more per day or rural road with 50,000 vehicles or more per day. The SCAQMD also recommends a health risk assessment when siting new sensitive receptors near other existing sources of TAC emissions, such as gasoline dispensing facilities and perchloroethylene dry cleaners. The Project site is located approximately 7,000 feet to the west of Interstate 5 and is not located near an urban or rural roadway with 100,000 or 50,000 vehicles per day. In addition, the Project site is not located near other substantial sources of existing TAC emissions, such as gasoline dispensing facilities (the nearest facility is over 6,500 feet to the east of the Project and the recommended buffer distance is 50 to 300 feet) and perchloroethylene dry cleaners (the nearest facility is over 5,000 feet to the northeast of the Project and the recommended buffer distance is 300 feet). Therefore, a health risk assessment is not required for future on-site residents of the Project and potential impacts associated with existing sources of TAC emissions on future residents of the Project site would be less than significant.

CO Hotspots

Traffic congestion has the potential to expose sensitive receptors to high levels of CO. Localized areas where ambient concentrations exceed state and/or federal standards are termed CO "hotspots." Such hotspots are defined as locations where the localized ambient CO concentrations exceed the state or federal ambient air quality standards. The potential for the Project to cause or contribute to CO hotspots is evaluated by comparing Project intersections (both intersection geometry and traffic volumes) with prior studies conducted by the SCAQMD in support of their AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the Project would not cause or contribute to the formation of CO hotspots, that CO concentrations at Project impacted intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

As shown in Table 4.2-2, the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. As shown previously in Table 4.2-3, CO levels in the Project area are substantially below the federal and state standards, with maximum CO levels during the past three years shown in Table 4.2-3 are

[37] *South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.*

1.3 ppm (one-hour average) and 1.1 ppm (eight-hour average), compared to the thresholds of 20 ppm (one-hour average) and 9.0 (eight-hour average).

The SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; and (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in the County, with an average daily traffic volume of about 100,000 vehicles per day.[38] This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.[39] When added to the existing background CO concentrations, the worst-case CO levels in the Basin would be 7.9 ppm (one-hour average) and 4.3 ppm (eight-hour average).

The Project traffic study determined that, of the studied intersections that are predicted to operate at a Level of Service (LOS) of D, E, or F under year 2014-plus-project and future year 2034-plus-project conditions, the intersection estimated to result in the highest traffic volumes would potentially have peak traffic volumes of about 59,000 vehicles per day under year 2014 conditions and 81,000 vehicles per day under future year 2034 conditions. This is approximately 41 percent and 19 percent fewer cars, respectively, than the AQMP demonstration intersection of Wilshire Boulevard and Veteran Avenue.[40] As a result, under year 2014 conditions, the maximum CO hotspot concentration is expected to be about 4.0 ppm (one-hour average) and 3.0 ppm (eight-hour average), which would not exceed the thresholds.[41] Under year 2034 conditions, the maximum CO hotspot concentration is expected to be about 5.0 ppm (one-hour average) and 3.7 ppm (eight-hour average), which would not exceed the thresholds.[42] Therefore, the Project would result in less than significant impacts with respect to CO hotspots, as nearby traffic congestion would be significantly less than any of the above studied intersections.

Mitigation Measures

Refer to Mitigation Measures 4.2-1 to 4.2-7. No additional mitigation measures are necessary.

---

[38] *South Coast Air Quality Management District, 2003 Air Quality Management Plan, Appendix V: Modeling and Attainment Demonstrations, (2003) V-4-24.*

[39] *The eight-hour average is based on a 0.7 persistence factor, as recommended by the SCAQMD.*

[40] *Crain and Associates, Traffic Impact Report for Proposed 6250 Sunset Project, (2014). The traffic volume of about 73,300 per day was estimated based on the peak hour intersection volumes under future with Project conditions and the general assumption that peak hour trips represent approximately 10 percent of daily trip volumes. The peak value was estimated at the intersection of Vine Street and Sunset Boulevard.*

[41] *The expected CO concentrations are calculated based on the ratio of 59,000/100,000 multiplied by the screening values of 4.6 ppm (one-hour average) and 3.2 ppm (eight-hour average) and adding the 1-hour and 8-hour background levels, respectively. Actual CO values would likely be less than the expected values reported in the analysis as the average CO emissions from motor vehicles operating today have declined as compared to motor vehicles operating in year 2003.*

[42] *The expected CO concentrations are calculated based on the ratio of 81,000/100,000 multiplied by the screening values of 4.6 ppm (one-hour average) and 3.2 ppm (eight-hour average) and adding the 1-hour and 8-hour background levels, respectively. Actual CO values would likely be less than the expected values reported in the analysis as the average CO emissions from motor vehicles operating today have declined as compared to motor vehicles operating in year 2003.*

Odors

Threshold AIR-5: The project would have a significant impact on air quality if it would create objectionable odors affecting a substantial number of people.

Impact Statement 4.2-5 The Project does not include any uses identified to be a source of odors. Therefore, the Project will result in no impacts with respect to odors affecting a substantial number of people.

Construction

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road equipment. As discussed in the regulatory framework provided in Appendix B**,** Regulatory Framework, Section 4.B.1, of this Draft EIR, SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the Project would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Project would result in less than significant impacts.

Operations

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project does not include any uses identified by the SCAQMD as being associated with odors. Therefore, operation of the Project would not create adverse odors as discussed above and would have no impact related to objectionable odors. No mitigation measures would be required.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (AIR-1 to AIR-5) analyzed in this EIR section?

Impact Statement 4.2-6: The Project, combined with the related projects, would not result in substantial adverse effects related to air quality in the Project area. Cumulative air quality impacts would be less than significant and not cumulatively considerable.

Construction

Of the related Projects that have been identified within the Project area, there are a number that have not yet been built or are currently under construction. Since the Project Applicant has no control over the timing or sequencing of the related projects, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be entirely speculative. For this reason, the SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed elsewhere in this Draft EIR.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to Federal CAA mandates. As such, the Project would comply with SCAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, the Project would comply with adopted AQMP emissions control measures. Per SCAQMD rules and mandates as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned above. Nevertheless, construction-period regional NO_X emissions and localized NO_2 emissions associated with the Project would potentially result in a significant impact to air quality without Project-specific mitigation. As such, cumulative impacts to air quality during Project construction would also be significant.

Similar to the Project, the greatest potential for TAC emissions at each related project would involve diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given that the Project's contribution to cancer risk from construction activities would be less than significant with mitigation, related projects that have not already been built would not result in a long-term (i.e., 70 years) substantial source of TAC emissions, with no residual emissions after construction, and corresponding individual cancer risks. Thus, TAC emissions from the related projects are anticipated to be less than significant individually and cumulatively.

Also similar to the Project, potential sources that may emit odors during construction activities at each related project would include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD Rules, it is anticipated that construction activities or materials used in the construction of the related projects would not create objectionable odors. Thus, odor impacts from the related projects are anticipated to be less than significant individually, as well as cumulatively in conjunction with the Project.

Operation

The SCAQMD's approach for assessing cumulative impacts related to operations is based on attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. As discussed earlier, the SCAQMD has developed a comprehensive plan, the 2012 AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. Because the Basin is currently in nonattainment for ozone, $PM_{10,}$ and $PM_{2.5}$, related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, *State CEQA Guidelines* Sections 15064(h)(3) provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

> *"A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency…"*

For purposes of the cumulative air quality analysis with respect to *State CEQA Guidelines* Section 15064(h)(3), the Project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD adopted 2012 AQMP.

The Project would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the AQMP. A project is deemed inconsistent with air quality plans if it results in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. In turn, the AQMP relies upon growth projections adopted by the SCAG, which in turn, relies upon adopted General Plan growth projections. Consequently, compliance with the County's General Plan typically results in compliance with the AQMP.

As discussed above, the Project would not result in population and/or employment growth that exceeds growth estimates in the AQMP. The Project would comply with all rules and regulations as implemented by the SCAQMD and the CARB, and would conform to the standards and guidelines of the Los Angeles County General Plan as they existing at the time of AQMP adoption. Therefore, it was determined that the Project was consistent with the AQMP. Thus, given the Project's consistency with the AQMP, the Project's incremental contribution to cumulative air quality effects is not cumulatively considerable, per CEQA Section 15064(h)(3).

Nonetheless, SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. Instead, SCAQMD's approach to determining cumulative air quality impacts for criteria air pollutants is to first determine whether or not the Project would result in a significant Project-level impact to regional air quality based on SCAQMD significance thresholds. If not, then the lead agency needs to consider the additive effects of related projects only if the Project is part of an ongoing regulatory program or is contemplated in a Program EIR, and the related projects are located within approximately one mile of the Project site. If there are related projects within the vicinity (one-mile radius) of the Project site, then additive effects of the related projects should be considered.

The SCAQMD recommends that Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily operation-related emissions would not exceed the SCAQMD regional significance thresholds. By applying SCAQMD's cumulative air quality impact methodology, implementation of the Project would not result in an addition of criteria pollutants such that cumulative impacts, in conjunction with related projects in the region, would occur. Therefore, the emissions of non-attainment pollutants and precursors generated by Project operation in excess of the SCAQMD project-level thresholds would be cumulatively less than significant.

With respect to TAC emissions, neither the Project nor any of the identified related projects would represent a substantial source of long-term TAC emissions. Uses typically associated with TAC emissions include large-scale industrial, manufacturing, and transportation hub facilities. Based on recommended screening level siting distances for TAC sources, as set forth in the CARB's Land Use Guidelines, the Project and related projects would not result in a cumulative impact requiring further evaluation. However, the Project and each of the related projects would likely generate minimal TAC emissions related to the use of consumer products and landscape maintenance activities, among other things. As mentioned previously, the Project is not expected to include gasoline dispensing land uses or boilers. Pursuant to the law enacted in 1983 by California Assembly Bill 1807 (Tanner, Stats. 1983, ch. 1047), as amended,[43] which directs the CARB to identify substances such as TAC and adopt ATCMs to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Basin-wide TAC emissions reductions. As such, cumulative TAC emissions during long-term operations would be less than significant. In addition, the Project would not result in any sources of TACs that have been identified by Land Use Guidelines, and thus would not contribute to a cumulative impact.

With respect to potential odor impacts, neither the Project nor any of the related projects (which are primarily institutional, general office, residential, retail, and restaurant uses) have a high potential to generate odor impacts.[44] Furthermore, any related project that may have a potential to generate objectionable odors would be required by SCAQMD Rule 402 (Nuisance) to implement BACT to limit potential objectionable odor impacts to a less than significant level. Thus, potential odor impacts from related projects are anticipated to be less than significant individually and cumulatively.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Construction

Implementation of Mitigation Measures 4.2-1 through 4.2-7 described above would reduce construction emissions for all pollutants. The mitigated construction emissions were estimated using the SCAQMD-approved air quality model, CalEEMod, and applying the CARB and USEPA Tier 3 off-road emissions standards requirement specified in Mitigation Measure 4.2-1. Mitigation Measures 4.2-2 through 4.2-7 would control and minimize construction emissions; however, it is difficult to quantify the specific level of emissions reductions within the approved CalEEMod air quality model. As a result, the potential reductions associated with Mitigation Measures 4.2-2 through 4.2-7 are not include in the modeled estimates. As shown in **Table 4.2-8**, *Maximum Mitigated Regional Construction Emissions*, the Project would be mitigated to below the SCAQMD regional significance threshold for NO_X during the most intense construction periods. The mitigated emissions likely represents a conservative estimate since the potential reductions associated with Mitigation Measures 4.2-2 through 4.2-7 are not included. Nonetheless, as shown in Table 4.2-8, Project construction would result in a less than significant regional impact with incorporation of feasible mitigation measures. Implementation of the mitigation measures described above would reduce localized NO_2 emissions below the applicable SCAQMD LST threshold at the nearest sensitive receptors. As shown in **Table 4.2-9**, *Maximum Mitigated Localized Construction Dispersion Modeling Analysis*, the Project impacts

[43] *Calif. Health and Safety Code §§ 39650 et seq.*

[44] *According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.*

Table 4.2-8

Maximum Mitigated Regional Construction Emissions [a]
(pounds per day)

Construction Activity	VOC	NO_X	CO	SO_2	PM_{10} [b]	$PM_{2.5}$ [b]
Grading (2015)	4	58	67	<1	7	4
Grading (2016)	4	57	67	<1	7	4
Grading & Utilities (2016)	6	78	83	<1	9	6
Utilities (2016)	2	21	15	<1	2	1
Utilities & Streets (2016)	5	43	32	<1	3	3
Utilities & Streets (2017)	5	40	32	<1	3	2
Utilities & Streets & Bldg. Constr. (2017)	10	77	74	<1	8	5
Utilities & Bldg. Constr. (2017)	7	56	58	<1	7	4
Bldg. Constr. (2017)	5	37	42	<1	5	3
Bldg. Constr. & Coating (2017)	11	40	48	<1	6	3
Bldg. Constr. & Coating (2018)	10	36	45	<1	6	3
Bldg. Constr. & Coating (2019)	10	32	43	<1	5	3
Maximum Regional Emissions	**11**	**78**	**83**	**<1**	**9**	**6**
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(64)	(22)	(467)	(150)	(141)	(49)
Exceed Threshold?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix B.*

[b] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

Source: PCR Services Corporation, 2015

Table 4.2-9

Maximum Mitigated Localized Construction Dispersion Modeling Analysis [a]

Pollutant [a]	Averaging Period	Project Concentration (ug/m^3)	Ambient Background (ug/m^3)	Total (ug/m^3)	Threshold (ug/m^3)	Exceed Threshold?
NO_2	1-hr	121.5	124.0	245.5	339	NO
NO_2	1-hr 98th Percentile [b]	71.3	89.3	160.6	188	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix B.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

Source: PCR Services Corporation, 2015

would be mitigated to below the SCAQMD regional significance threshold for NO_2 during the most intense construction periods. As such, Project construction would result in a less than significant localized impact with incorporation of feasible mitigation measures.

4.3. BIOLOGICAL RESOURCES

This section describes existing biological resources that occur or have the potential to occur on the Project site or in the site vicinity. In addition, a description of applicable regulations is provided. The analysis evaluates the potential impacts to biological resources that could occur in association with implementation of the proposed Project. The analysis in this section is based on *The Aidlin Project: Tentative Tract No. 52796 Spring Plant List* prepared by Verna Jigour Associates (2000), the *Wetland Delineation Report, The Aidlin Project* prepared by Envicom (2000), the *Wickham Property Botanical Inventory 2005* prepared by Envicom Corporation (2005), and the *Biological Resources Assessment* prepared by PCR Services Corporation (PCR) (PCR 2015), which are provided in Appendix C of this Draft EIR.

1. ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). ESA Section 9 prohibits the taking of endangered wildlife, where taking is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land, as well as removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of federal law. Under ESA Section 7, agencies are required to consult with the USFWS or NMFS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS or NMFS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. In cases where the federal agency determines its action may affect, but would be unlikely to adversely affect, a federally listed species, the agency informally consults with the USFWS or NMFS. This informal consultation typically involves incorporating measures intended to ensure effects would not be adverse. Concurrence from the USFWS or NMFS concludes the informal process. Without such concurrence, the federal agency formally consults to ensure full compliance with the ESA.

Clean Water Act

The federal Water Pollution Control Act Amendments of 1972 (33 United States Code [USC] 1251–1376), as amended by the Water Quality Act of 1987, and better known as the federal Clean Water Act (CWA), is the major federal legislation governing water quality. The purpose of the federal CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into waters of the United States are regulated under CWA Section 404. Waters of the United States include: 1) all navigable waters (including all waters subject to the ebb and flow of the tide); 2) all interstate waters and wetlands; 3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand

flats, wetlands, sloughs, or natural ponds; 4) all impoundments of waters mentioned above; 5) all tributaries to waters mentioned above; 6) the territorial seas; and 7) all wetlands adjacent to waters mentioned above. Important applicable sections of the CWA are discussed below:

- Section 303 requires states to develop water quality standards for inland surface and ocean waters and submit to the U.S. Environmental Protection Agency (EPA) for approval. Under Section 303(d), the state is required to list waters that do not meet water quality standards and to develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality.
- Section 304 provides for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the CWA. Certification is provided by the respective Regional Water Quality Control Board (RWQCB). A Section 401 permit from the Los Angeles RWQCB would be required for the proposed Project if a Section 404 permit were required.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. The NPDES program is administered by the RWQCB. Conformance with Section 402 is typically addressed in conjunction with water quality certification under Section 401.
- Section 404 provides for issuance of dredge/fill permits by the United States Army Corps of Engineers (USACE). Permits typically include conditions to minimize impacts on water quality. Common conditions include: 1) USACE review and approval of sediment quality analysis before dredging, 2) a detailed pre- and post-construction monitoring plan that includes disposal site monitoring, and 3) requiring compensation for loss of waters of the United States.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits take of nearly all native birds. Under the MBTA, take means to kill, directly harm, or destroy individuals, eggs, or nests, or to otherwise cause failure of an ongoing nesting effort.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) authorizes the California Fish and Game Commission (Commission) to designate endangered, threatened, and rare species and to regulate the taking of these species (California Fish and Game Code [FGC] Sections 2050–2098). The CESA defines endangered species as those whose continued existence in California is jeopardized. State-listed threatened species are those not presently facing extinction, but that may become endangered in the foreseeable future. FGC Section 2080 prohibits the taking of state-listed plants and animals. The California Department of Fish and Wildlife (CDFW, formerly the Department of Fish and Game [CDFG] prior to January 1, 2013) also designates fully protected or protected species as those that may not be taken or possessed without a permit from the Commission or CDFW. Species designated as fully protected or protected may or may not be listed as endangered or threatened. When a species is both state- and federally listed, an expedited request for consistency with the USFWS biological opinion may be issued through a request for Section 2080.1 consistency determination.

California Fish and Game Code

The FGC is implemented by the Commission, as authorized by Article IV, Section 20, of the Constitution of the State of California. FGC Sections 3503, 3503.5, 3505, 3800, and 3801.6 protect all native birds, birds of prey, and nongame birds, including their eggs and nests, that are not already listed as fully protected and that occur naturally within the state. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. The CDFW is the state agency that manages native fish, wildlife, plant species, and natural communities for their ecological value and their benefits to people.

California Native Plant Society

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprised of information focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered plant species of California. The list has served as a potential candidate list for listing as Threatened and Endangered by CDFW. CNPS has developed six categories of rarity, referred to as California Rare Plant Ranks (CRPRs), of which CRPRs 1A, 1B, 2A, and 2B are considered particularly sensitive:

- CRPR 1A Presumed Extirpated in California and either Rare or Extinct elsewhere.
- CRPR 1B Plants Rare, Threatened, or Endangered in California and elsewhere.
- CRPR 2A Presumed Extirpated in California, but more common elsewhere.
- CRPR 2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere.
- CRPR 3 Plants about which we need more information—a review list.
- CRPR 4 Plants of limited distribution—a watch list.

The CNPS appends CRPR categorizations with "threat ranks" that parallel the ranks used by the California Natural Diversity Database (CNDDB), and are added as a decimal code after the CRPR (e.g., CRPR 1B.1). The threat codes are as follows:

- .1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- .2: Fairly endangered in California (20 – 80% occurrences threatened);
- .3: Not very endangered in California (<20% of occurrences threatened or no current threats known).

Regional Regulations

Significant Ecological Areas

The County of Los Angeles's (County) Significant Ecological Area (SEA) Program began in 1980 with the adoption of SEAs as Special Management Areas in the Los Angeles County General Plan (existing General Plan). The objective of the SEA Program is to preserve the genetic and physical ecological diversity of the Los Angeles County by designing biological resource areas capable of sustaining themselves into the future. The SEA designation is given to land that contains irreplaceable biological resources, and includes undisturbed or

lightly disturbed habitats that supporting valuable and threatened species, and linkages and corridors to promote species movement.

Oak Tree Ordinance

The County Oak Tree Ordinance applies to all unincorporated areas of Los Angeles County. The Oak Tree Ordinance requires that a person shall not cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak tree genus that is 25 inches or more in circumference (8 inches in diameter) as measured 4.5 feet above mean natural grade, or in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured 4.5 feet above mean natural grade (i.e., diameter at breast height [DBH]), or (b) any tree that has been provided as a replacement tree, without first obtaining an oak tree permit.

Oak Woodlands Conservation Management Plan

To further the County's compliance with Public Resources Code Section 21083.4, which provides for the conservation of oak woodlands, the County adopted the Los Angeles County Oak Woodlands Conservation Management Plan (OWCMP) in 2012. The OWCMP develops a consistent policy for the management of oak woodlands by providing a voluntary conservation strategy in order to meet the requirements of the California Oak Woodlands Conservation Act (AB 242). The OWCMP extends CEQA consideration of impacts to oak woodlands comprised of oaks greater than 5 inches at DBH and recognizes that conservation of oak woodland habitat extends beyond the protection of individual trees.

Local Regulations

Santa Clarita Valley Area Plan

The Santa Clarita Valley Area Plan is a component of the Los Angeles County General Plan that is intended to provide focused goals, policies, and maps to guide the regulation of development within the unincorporated portions of the Santa Clarita Valley. Because the Project was originally submitted prior to the 2012 adoption of the Santa Clarita Valley Area One Valley One Vision plan, the Project is subject to the policies of the 1990 Santa Clarita Valley Area Plan. An analysis of project consistency with the applicable goals and policies of the Santa Clarita Valley Area Plan Conservation and Natural Resources Element relating to biological resources is provided in **Section 4.9, *Land Use and Planning***.

Existing Conditions

The Project site is located in the northern foothills of the Santa Susana Mountains in an unincorporated section of Los Angeles County ("County") known as Stevenson Ranch. The Project site is located in the Santa Clarita Valley area of Los Angeles County and is comprised of 230.5 acres of undeveloped land located approximately 1.6 miles west of Interstate 5. The Project site is primarily vacant and consists of undeveloped terrain with moderate to steep variations in topography. Several small to large drainage courses traverse through the site. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and annual grassland in the process of transition as they recover from a wildfire in 2010. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site.

Local access to the Project site is provided via Pico Canyon Road, a County master-planned arterial road. A single-family residential community, Southern Oaks, abuts the Project site on the east. The area to the west of the Project site is mostly undeveloped within Pico Canyon, and this area includes the remaining historic buildings of Mentryville. The area directly to the north of the Project site is currently undeveloped with moderate to steep variations in topography, although subdivision application is pending with the County of Los Angeles. The areas to south of the Project site, within the north slopes of the Santa Susana Mountains, are chiefly undeveloped and primarily dedicated as public open space. Wickham Canyon and its tributaries drain the Project area in a north to northeast direction until its confluence with Pico Canyon, where drainage flows to the east as a tributary of the South Fork of the Santa Clara River. Portions of the Project site have been disturbed by anthropogenic disturbances (e.g., permitted and unpermitted access roads, past agricultural or mineral extraction uses). Elevations of the Project site range between 1,460 and 2,250 feet above mean sea level (MSL).

The topography consists of hills of gentle to steep slopes separating low-lying drainages. The hills are tallest in the southwestern portion of the site and lower in height as they trend northwards where they form the southern wall of Pico Canyon, which lies north of the site. In the eastern portion of the Project site, east-west trending ridges are cut by north-south trending Wickham Canyon, which flows from the south and to the north of the property where it joins with Pico Canyon. The western portion of the site is dominated by a northward-facing canyon with moderate to steep slopes. The vegetation of the Project site is in the process of transition as it recovers from a wildfire in 2010. The north-facing aspects of most slopes are covered by coastal sage scrub and chaparral while the south facing ones are primarily annual grasslands. Riparian vegetation is sparingly found in the major drainages and several of the minor ones. The majority of the site is covered by soils characterized as Castaic-Balcom silty loams. In the low-lying area where Wickham Canyon meets Pico Canyon in the north, the soils type is characterized as Yolo loam, while the rocky exposures of the tallest ridgeline in the southern portion of the site are characterized as Gaviota rocky sandy loam. Various dirt access roads and trails traverse through the Project site.

The primary canyon within the Project site is Wickham Canyon, with Pico Canyon crossing the Project site perpendicularly in the northeast portion. These are both designated as USGS blueline streams. Pico Canyon Creek enters the northeast corner of the Project site and exits along the eastern boundary. A short tributary initiates within the western portion of the Project site and exits in the northwest corner where it joins Pico Canyon Creek off-site. Wickham Canyon Creek, which is a tributary to Pico Canyon Creek, enters in the southeastern corner of the Project site and continues north until its confluence with Pico Canyon Creek in the northeastern corner of the Project site. Wickham Canyon Creek and its tributaries occupy the central and eastern portions of the Project site and drain the majority of the site.

Methodology

Literature Review

The study began with a review of relevant literature on the biological resources of the Project site and surrounding vicinity. The current edition of CNDDB, a CDFW sensitive species and habitats account database, and the CNPS Online Inventory were reviewed for all pertinent information regarding the localities of known observations of sensitive species in the vicinity of the Project site.[1] The area searched in these two

[1] *California Department of Fish and Wildlife, Natural Diversity Database (CNDDB). January 14, 2014.* RareFind: Database Record Search for Information on Threatened, Endangered, Rare, or Otherwise Sensitive Species and Communities *and California Native*

(Footnote continued on next page)

databases included the two USGS 7.5-minute quadrangles in which the project is located—Newhall and Oat Mountain—and the ten surrounding quadrangles: Calabasas, Canoga Park, Val Verde, Green Valley, Mint Canyon, San Fernando, Santa Susana [Simi Valley East], Van Nuys, Warm Springs Mountain, and Whitaker Peak. The *Significant Ecological Areas Report* (England and Nelson 1976[2]), *Los Angeles County Significant Ecological Area Update Study 2000* (PCR Services Corporation 2000[3]), Federal Register listings, agency-approved protocols, as well as species data provided by the USFWS and CDFW were reviewed in conjunction with anticipated federal and state listed species and sensitive plant communities potentially occurring within the vicinity. Previous studies were available, including *Initial Study Assessment: Vegetation and Flora* (Verna Jigour Associates 1999[4]), *Spring Plant List, The Aidlin Project* (Verna Jigour Associates 2000[5]), *Wetland Delineation Report, The Aidlin Project* (Envicom 2000[6]), *Wickham Property Botanical Inventory 2005* (Envicom 2005[7]), *Oak Tree Survey Update for Tentative Map #52796* (PCR 2013[8]). Regional flora and fauna field guides were utilized in the identification of species and suitable habitats, where needed. These sources and other references reviewed provided a baseline from which to inventory the biological resources potentially occurring in the Project site.

Field Investigation

General biological field assessment and sensitive plant surveys were conducted by PCR biologists Maile Tanaka, Ezekiel Cooley, Bob Huttar, and intern Lauren Willey on March 27, 2014 and again by Maile Tanaka and Bob Huttar on June 15, 2014. While on-site during the March 27, 2014 survey, Mr. Cooley conducted an updated assessment to map the maximum extent of jurisdiction to reflect current site conditions.

Prior to the biological field surveys, PCR biologist and ISA certified arborist Bob Huttar conducted a field survey on June 19, 2013 to collect data on the oak trees identified in an earlier 1999 Oak Tree Report prepared by Benshoof, Withers & Sandgren, Ltd. The data collected was incorporated into a June 27, 2013 Oak Tree Survey Update.[9]

Plant Society (CNPS). January 14, 2014. Online Inventory of Rare and Endangered Plants of California. *California Native Plant Society.*

2 *England, S. and S. Nelson. 1976.* Land Capability/Suitability Study. Los Angeles County General Plan Revision Program. Significant Ecological Areas Report. *Prepared for Los Angeles County Department of Regional Planning and Environmental Systems Research Institute.*

3 *PCR Services Corporation. 2000.* Los Angeles County Significant Ecological Area Update Study 2000. *Los Angeles County, California. Background Report. November 2000. Prepared for Los Angeles County Department of Regional Planning.*

4 *Verna Jigour Associates. July 3, 1999.* Initial Study Assessment: Vegetation and Flora. Aidlin and Lennar Properties: Tentative Tract No. 52796. Los Angeles County.

5 *Verna Jigour Associates. June 7, 2000.* The Aidlin Project: Tentative Tract No. 52796, Spring Plant List. *Conservation Ecology Associates*

6 *Envicom. June 9, 2000.* Wetland Delineation Report, The Aidlin Project. *Prepared for Gary M. Baker/Plan II.*

7 *Envicom. November 2005.* Wickham Property Botanical Inventory 2005. *Prepared for Hummer Construction.*

8 *PCR Services Corporation. June 27, 2013.* Oak Tree Survey Update for Tentative Map #52796 in the Stevenson Ranch Area. *Prepared for Aidlin General Trust.*

9 *PCR Services Corporation. June 27, 2013.* Oak Tree Survey Update for Tentative Map #52796 in the Stevenson Ranch Area. *Prepared for Aidlin General Trust.*

Plant Community Mapping

Plant communities were mapped with the aid of a 1" = 75' scale aerial photograph and a topographic map. Plant community boundaries were delineated directly onto the aerial photograph while in the field. Plant community boundaries were then digitized using Geographic Information System (GIS) technology to calculate acreages. Plant community names and hierarchical structure follows the CDFG *List of Vegetation Alliances and Associations* (2010)[10]. Plant community descriptions were based on PCR findings and descriptions contained in Sawyer, Keeler-Wolf and Evens *A Manual of California Vegetation, second edition* (2011)[11]. Because common names vary significantly between references, scientific names are employed upon initial mention of each species; common names are employed thereafter.

General Plant Inventory

All plant species observed within the Project site were identified and recorded in field notes or collected and later identified using taxonomic keys. Plant taxonomy follows Baldwin, (2010)[12]. A complete list of plant species observed within the Project site is provided in Appendix A, *Floral and Faunal Compendium* of the *Biological Resources Assessment* (PCR 2015)[13] provided in Appendix C of this Draft EIR.

Sensitive Plant Surveys

Focused surveys for these species were conducted within the Project impact footprint by PCR biologists Maile Tanaka, Ezekiel Cooley, Bob Huttar and intern Lauren Willey on March 27, 2014 and again by Maile Tanaka and Bob Huttar on June 15, 2014. Previous studies recorded slender mariposa lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa lily (*Calochortus plummerae*), southern California black walnut (*Juglans californica*) and Peirson's morning glory (*Calystegia peirsonii*). The Jigour report (2000) provided three locations of Peirson's morning glory and the PCR oak tree report (2013) showed locations for southern California black walnut.

All plant species observed on-site were recorded during the focused survey. The locations, extent, and number of sensitive plant species within the Project site were mapped with the aid of a 1" = 75' scale aerial photograph and Global Positioning System (GPS) device with down to a 3-meter accuracy.

General Wildlife Inventory

All wildlife species observed during the field investigation by sight, call, tracks, nests, scat (fecal droppings), remains, or other sign were recorded. Binoculars and taxonomic keys were utilized in the field for the identification of wildlife, as necessary. Wildlife taxonomy follows Stebbins (2003[14]) for amphibians and

---

[10] *California Department of Fish and Game (CDFG). 2010.* List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.*

[11] *Sawyer, John O., T. Keeler-Wolf, and Evens, Julie. 2009.* A Manual of California Vegetation*.* Second edition. *Sacramento: California Native Plant Society.*

[12] *Baldwin, B.G., Editor. 2012.* The Jepson Manual: Vascular Plants of California, second edition. *University of California Press, Berkley, California.*

[13] *PCR Services Corporation. 2015.* Biological Resources Assessment, Aidlin Hills Project, Los Angeles County, California. *Prepared for Lennar. February 2015.*

[14] *Stebbins, R. C. 2003.* A Field Guide to Western Reptiles and Amphibians, Third Edition. *Boston: Houghton-Mifflin.*

reptiles, Kaufman (2000[15]) for birds, and Jameson and Peeters (1988[16]) for mammals. A complete list of wildlife species observed within the Project site is provided in Appendix A, *Floral and Faunal Compendium* of the *Biological Resources Assessment* (PCR 2015) provided in Appendix C of this Draft EIR.

Sensitive Wildlife Surveys

A habitat assessment for sensitive wildlife species was conducted during the March and June 2014 site surveys. All wildlife species observed on-site, or the evidence of their presence, were recorded during the field investigation. Protocol surveys for federal and state-listed species were determined not warranted based on lack of suitable habitat for those species for which such protocol methodology has been established and no focused wildlife surveys were conducted. Earlier protocol surveys for the coastal California gnatcatcher (*Polioptila californica californica*) did not result in detection of this species[17]. These earlier coastal California gnatcatcher protocol surveys were conducted when the USFWS had proposed as critical habitat for the species an area that included the Project site. The Final Rule, published in 2007, designates critical habitat for coastal California gnatcatcher further to south, and does not include the Project site. Additionally, the Project site does not currently support suitable coastal sage scrub habitat as a result of wildfires, the most recent having occurred in 2010.

Regional Connectivity/Wildlife Movement Corridor Assessment

The analysis of wildlife movement corridors associated with the Project site and its immediate vicinity is based on information compiled from the literature and analysis of aerial photographs and topographic maps. A literature review was conducted that included documents on island biogeography (studies of fragmented and isolated habitat "islands"), reports on wildlife home range sizes and migration patterns, and studies on wildlife dispersal (MacArthur and Wilson 1967)[18]. Wildlife movement studies conducted in southern California (South Coast Wildlands 2008)[19] were also reviewed. The relationship of the Project site to large open space areas in the immediate vicinity was also evaluated in terms of connectivity and habitat linkages. Relative to corridor issues, the discussions in this report are intended to focus on wildlife movement associated with the Project site and the immediate vicinity.

In addition, the focus of this study is to determine if the alteration of current land use within the Project site due to implementation of the proposed Project will have significant impacts on the regional movement of wildlife. During the surveys, notations of the locations of any animal sign were made. In addition, topographic and resource maps of the vicinity were inspected to determine the potential for wildlife to utilize the Project site and vicinity.

---

15 *Kaufman, Kenn. 2000.* Field Guide to Birds of North America*. New York: Hillstar Editions L.C.*

16 *Jameson, Jr., E. W., and H. J. Peeters. 1988.* California Mammals*. Berkeley: University of California Press.*

17 *BioResource Consultants. 2002.* Results of 2001 Focused Surveys for the California Gnatcatcher at the Aidlin West Parcel, Los Angeles County, California*. May 7, 2002; BioResource Consultants. 2003.* Results of 2003 Focused Surveys for the California Gnatcatcher at the Aidlin Blinn, Aidlin West, Casad, and Edson Parcels, Los Angeles County, California*. September 10, 2003*

18 *MacArthur, R. M. and E. O. Wilson. 1967.* The Theory of Island Biogeography*. Princeton University Press: Princeton, New Jersey.*

19 *South Coast Wildlands. 2008. South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion. Produced in cooperation with partners in the South Coast Missing Linkages Initiative. Available online at http://www.scwildlands.org*

Preliminary Jurisdictional Review

In 2000, Envicom performed a jurisdictional delineation on the Project site, as detailed in the *Wetland Delineation Report* (Envicom 2000). Since 2000, there have been multiple court cases and new regulations issued to provide further guidance on delineation methodology, which have changed the regulatory requirements. In addition, site conditions are often subject to change over time (e.g. delineations are generally not accepted by the resource agencies over five years old) warranting reevaluation of jurisdictional field indicators. Thus while performing this biological assessment in 2014, PCR conducted a cursory review of the 2000 delineation report, focusing on the central portions of the main stem jurisdictional drainage features mapped on-site in 2000. Therefore, the 2014 cursory delineation review did not include a formal updated jurisdictional delineation of waters and wetlands, although for purposes of this DEIR, it is assumed that the Project impacts, as a worst case scenario, are based upon the 2000 jurisdictional delineation. As discussed in more detail below, based upon PCR's 2014 site visit, the amount of jurisdictional areas designated in the 2000 Envicom delineation report are greater than what is expected today.

Prior to PCR's 2014 site visit, Envicom's 2000 jurisdictional delineation report was reviewed and previous drainage locations and jurisdictional areas were noted and identified on field maps and recent aerial imagery. On March 27, 2014 portions of main stem drainages located within the Project site were investigated focusing on CDFW jurisdiction within portions of the main stem drainage features mapped by the 2000 delineation report. CDFW jurisdiction is generally defined by the bank of the stream/channels to include the limits of the adjacent riparian vegetation, if any. The adjacent riparian vegetation often extends beyond the banks onto flood plains; therefore, in most cases CDFW jurisdiction encompasses or extends beyond USACE/RWQCB[20] jurisdiction as measured laterally across the streambed. Potential jurisdiction within portions of the main stem drainage features observed by PCR were mapped with the assistance of a 200-foot scale aerial photograph[21] and GPS equipment. Following data collection, the digital information was uploaded and incorporated within PCR's project-specific GIS database.

PCR's jurisdictional assessment was limited to a field comparison of Envicom's 2000 jurisdictional delineation map within portions of main stem drainage features on the property. Based on current conditions, any jurisdictional resources that had appreciably changed since the 2000 jurisdictional delineation were updated on the map. It should be noted that the Envicom jurisdictional delineation was performed prior to the creation of the Pico Canyon Creek Channel and the Pico Canyon Road improvements. Nevertheless, if the jurisdictional delineation had been undertaken after the completion of these improvements, the amount of jurisdictional areas would have been less than what was found in the 2000 jurisdictional delineation. As stated in Envicom's 2000 jurisdictional delineation report, those improvements were authorized under permits associated with the Stevenson Ranch Laing Homes development. Therefore, current post-improvement jurisdictional conditions in association with these improved facilities have been updated and are included in the 2014 assessment by PCR. It should also be noted that several areas (e.g., large portions of Wickham Canyon) were mapped as jurisdictional features by Envicom (Envicom 2000). However, based on PCR's review, only a portion of the limits of CDFW jurisdictional drainage features depicted on the 2000 jurisdictional delineation map supported obvious indicators of jurisdiction based on current field conditions, and may not necessarily be subject to jurisdiction under current regulatory requirements. However, to provide a conservative analysis and include the maximum possible extent of

[20] *The extent of RWQCB jurisdiction is presumed to be consistent with the extent USACE jurisdiction.*

[21] *Google Earth aerial photograph accessed March, 2014.*

jurisdiction on-site, the entirety of those areas previously delineated as jurisdictional in the 2000 Envicom delineation were presumed jurisdictional in the 2014 assessment by PCR for the purpose of this report.

General Plant Inventory

The plant communities discussed below are composed of numerous plant species. Plant species observations and identifications were completed during the 2014 field visits to the Project site. All plant species observed within the Project site are indicated in Appendix A, *Floral and Faunal Compendium* of the *Biological Resources Assessment* (PCR 2015) provided in Appendix C of this Draft EIR. Sensitive plant species occurring or potentially occurring within the Project site are discussed below under *Sensitive Plant Species*.

General Wildlife Inventory

The natural communities found within the Project site provide habitat for a variety of wildlife species. Wildlife species observations and identifications were completed during the 2014 field visits to the Project site. All wildlife species observed within the Project site are indicated in Appendix A, *Floral and Faunal Compendium* of the *Biological Resources Assessment* (PCR 2015) provided in Appendix C of this Draft EIR. Sensitive wildlife species occurring or potentially occurring within the Project site are discussed below under *Sensitive Wildlife Species*.

Plant Communities

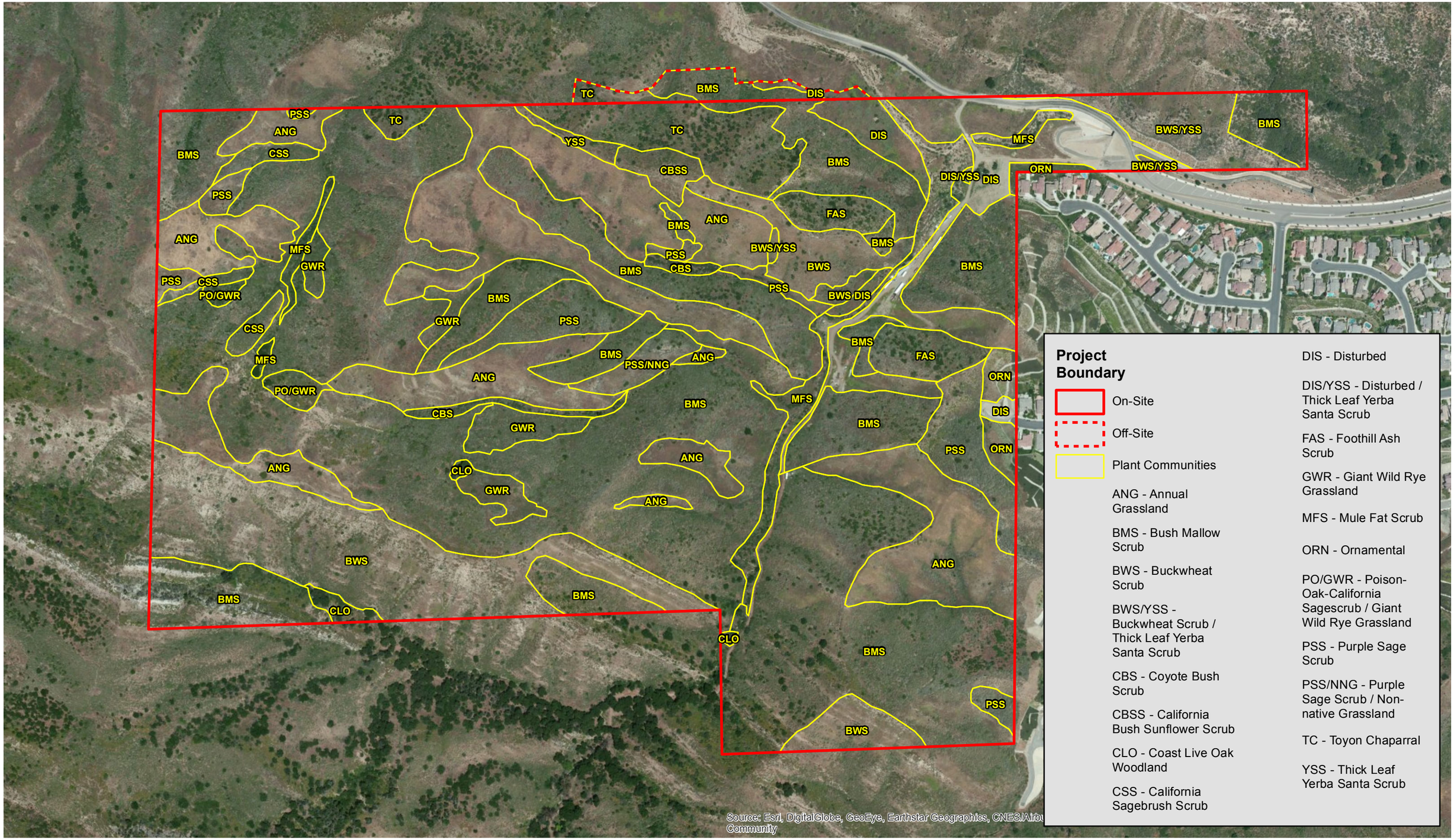
Descriptions of the plant communities mapped within the Project area, which includes 2.6 acres off-site, within which fuel modification would be implemented, are included below. Locations of each of the plant communities are shown in **Figure 4.3-1**, *Plant Communities*, and acreages are summarized in **Table 4.3-1**, *Plant Communities*.

Bush Mallow Scrub (*Malacothamnus fasciculatus* Shrubland Alliance; G4 S4)

This community is characterized by a strong, almost monotypic, dominance of chaparral bushmallow (*Malacothamnus fasciculatus*), which is a pioneer species. Associated species observed within this community include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), toyon (*Heteromeles arbutifolia*), giant wild rye (*Elymus condensatus*), chaparral yucca (*Hesperoyucca whipplei*), blue dicks (*Dichelostemma capitatum*), coyote bush (*Baccharis pilularis*), purple sage (*Salvia leucophylla*), shortpod mustard (*Hirschfeldia incana*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), common sandaster (*Corethrogyne filaginifolia*), skunkbush (*Rhus aromatica*), and Peirson's morning glory. This shrubland alliance is found on many slopes throughout the Project site and comprises approximately 110.5 acres with 1.5 acres off-site within the proposed fuel modification zone.

Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance; G5 S5)

This community is dominated by California buckwheat and is open and sparse in some areas with an understory of bare ground. Associated species observed within this community include California sagebrush, black sage (*Salvia mellifera*), thick leaf yerba santa (*Eriodictyon crassifolium*), California bush sunflower (*Encelia californica*), chaparral bushmallow, sugarbush (*Rhus ovata*), wishbone bush (*Mirabilis laevis*), arroyo lupine (*Lupinus succulentus*), red-stemmed filaree (*Erodium cicutarium*), blue dicks, giant wild rye, wild cucumber (*Marah macrocarpus*), and virgin's bower (*Clematis ligusticifolia*). Approximately 24.0 acres of this shrubland alliance are found on many slopes throughout the Project site.



PCR

N

0 400 800 Feet

Plant Communities

Aidlin Hills

Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.

FIGURE

4.3-1

This page intentionally blank.

Table 4.3-1

Plant Communities

Plant Communities	On-site (acres)	Off-site (acres)	Total (acres)
Bush Mallow Scrub	110.5	1.5	112.0
Buckwheat Scrub	24.0		24.0
Buckwheat Scrub/Thick Leaf Yerba Santa Scrub	4.6		4.6
Coyote Bush Scrub	1.2		1.2
California Bush Sunflower Scrub	1.3		1.3
Coast Live Oak Woodland	0.8		0.8
California Sagebrush Scrub	1.9		1.9
Disturbed	13.1	0.4	13.5
Disturbed/Thick Leaf Yerba Santa Scrub	0.1		0.1
Foothill Ash Scrub	3.8		3.8
Giant Wild Rye Grassland	4.0		4.0
Mule Fat Scrub	5.5		5.5
Annual Grassland	38.9		38.9
Ornamental	1.9		1.9
Poison Oak-California Sagebrush Scrub/Giant Wild Rye Grassland	1.1		1.1
Purple Sage Scrub	8.8		8.8
Purple Sage Scrub/Annual Grassland	1.5		1.5
Toyon Chaparral	6.8	0.7	7.5
Thick Leaf Yerba Santa Scrub	0.6		0.6
Total	**230.4**	**2.6**	**233.0**

Source: PCR Services Corporation, 2015.

Buckwheat Scrub/Thick Leaf Yerba Santa Scrub (*Eriogonum fasciculatum* Shrubland Alliance – *Eriodictyon crassifolium* Provisional Shrubland Alliance)

This community is dominated by California buckwheat; however, the subdominant species found within this community is thick leaf yerba santa, which is a pioneer species. Associated species observed within this community include chamise (*Adenostoma fasciculatum*), California sagebrush, pinebush (*Ericameria pinifolia*), mule fat (*Baccharis salicifolia*), California rose (*Rosa californica*), black sage, deerweed (*Acmispon glaber* var. *glaber*), California dodder (*Cuscuta californica*), chaparral yucca, Mediterranean tamarisk (*Tamarix ramosissima*), tocalote (*Centaurea melitensis*), and Bigelow's moss fern (*Selaginella bigelovii*). Approximately 4.6 acres of this shrubland alliance are found within the northeastern portion of the Project site.

Coyote Bush Scrub (*Baccharis pilularis* Shrubland Alliance; G5 S5)

This community is characterized by a dominance of coyote bush. Species observed within this community include black sage, purple sage, tocalote, chaparral bushmallow, and flatspine bur ragweed (*Ambrosia*

acanthicarpa). Approximately 1.2 acres of this community are found within several low-lying areas of the Project site.

California Bush Sunflower Scrub (*Encelia californica* Shrubland Alliance; G4 S3)

This shrubland alliance is dominated by a nearly monotypic community of California brittlebush. Associated species observed within this community include California sagebrush, California buckwheat, chaparral bushmallow, deerweed, and giant wild rye. Approximately 1.3 acres of this shrubland alliance are found on a south-facing slope in the northern portion of the Project site.

Coast Live Oak Woodland (*Quercus agrifolia* Woodland Alliance; G5 S4)

This woodland is dominated by coast live oak (*Quercus agrifolia*), an evergreen oak that reaches 30 to 75 feet in height. The shrub layer is underdeveloped and includes poison oak (*Toxicodendron diversilobum*), bush mallow, and giant wild rye. Approximately 0.8 acre of oak woodland were found on north-facing slopes in the southwestern portion of the Project site, and near Wickham Canyon in the south. In addition, there is a single coast live oak tree at the bottom of a tributary to Wickham Canyon, at a distance from the coast live oak woodland stands.

California Sagebrush Scrub (*Artemisia californica* Shrubland Alliance; G5 S5)

This community is characterized by a dominance of California sagebrush. Associated species observed within this community include poison oak, giant wild rye, and mugwort (*Artemisia douglasiana*). Approximately 1.9 acres of this community on the moist lower portions of several north-facing slopes on the westernmost portion of the Project site.

Disturbed

Disturbed habitat has been physically disturbed and is no longer recognizable as a native or naturalized vegetation association. The disturbance appears to be associated with past agricultural activities in conjunction with the more recent 2010 wildlife. Dominant vegetation is nearly exclusively composed of non-native, ruderal weedy grasses and herbaceous species. Species observed within this community included Mediterranean tamarisk, shortpod mustard, California sagebrush, California buckwheat, thick leaf yerba santa, red-stemmed filaree, chaparral bushmallow, mule fat, native needlegrass, tocalote, purple sage, lupine (*Lupinus* spp.), Turkish rugging (*Chorizanthe staticoides*), telegraphweed (*Heterotheca grandiflora*), tarragon (*Artemisia dracunculus*), Jimson weed (*Datura wrightii*), horehound (*Marrubium vulgare*), western verbena (*Verbena lasiostachys*), wild cucumber, blue elderberry, cheeseweed (*Malva parviflora*), milkthistle (*Silybum marianum*), poison hemlock (*Conium maculatum*), nettle-leaved goosefoot (*Chenopodium murale*), chaparral nightshade (*Solanum xanti*), saltgrass (*Distichlis spicata*), California suncup (*Eulobus californica*), tumbling pigweed (*Amaranthus albus*), Santa Barbara milkvetch (*Astragalus trichopodus* var. *phoxus*), flatspine bur ragweed, coastal bird's-foot trefoil (*Acmispon maritimus* var. *maritimus*), and common eucrypta (*Eucrypta chrysanthemifolia*). The number of disturbance-tolerant native species present indicates that a native community could become established absent further disturbances. This community is found throughout the eastern portion of the Project site where unpaved roads occur, where disking or grading has also occurred and comprises approximately 13.1 acres on-site and 0.4 acre off-site within the proposed fuel modification zone.

Disturbed/Thick Leaf Yerba Santa Scrub (Disturbed/*Eriodictyon crassifolium* Provisional Shrubland Alliance)

The habitat shows evidence of past anthropogenic disturbance and the community is dominated by non-native, weedy species, such as shortpod mustard, but has a subdominance of thick leaf yerba santa. Species observed within this community include coyote bush, mule fat, toyon, southern California black walnut, and poison hemlock. Approximately 0.1 acre of this shrubland alliance occur near the northern entrance to the Project site.

Foothill Ash Scrub (*Fraxinus dipetala* Alliance)

This community, which is dominated by California ash (*Fraxinus dipetala*) with a strong subdominance of purple sage, was identified by Mullally in 1997 in an early plant community classification effort of the Santa Susana Mountains[22]; however, this community is not currently recognized by Sawyer, Keeler-Wolf, and Evens (2009)[23]. Associated species include toyon, coyote bush, California sagebrush, sugarbush, and giant wild rye. This shrubland alliance is found on several north-facing slopes within the Project site and comprises approximately 3.8 acres.

Giant Wild Rye Grassland (*Elymus condensatus* Herbaceous Alliance; G3 S3)

This community is characterized by a dominance of giant wild rye. Associated species observed within this community include purple sage, blue elderberry, California sagebrush, lupine, Pacific sanicle (*Sanicula crassicaulis*), wishbone bush, wild cucumber, miner's lettuce (*Claytonia perfoliata*), and common eucrypta. Approximately 4.0 acres of this community occur on the moist lower portions of several north-facing slopes within the Project site.

Mule Fat Scrub (*Baccharis salicifolia* Riparian Shrubland Alliance; G5 S4)

This community is characterized by a dominance of mule fat that is found in association with the drainages on-site. Species observed within this community include thick leaf yerba santa, Mediterranean tamarisk, California sagebrush, black sage, sugarbush, blue elderberry, chaparral bushmallow, southern California black walnut, Fremont's cottonwood (*Populus fremontii*), red willow (*Salix laevigata*), giant wild rye, tree tobacco (*Nicotiana glauca*), mugwort, virgin's bower, golden currant (*Ribes aureum*), and ornamental black locust (*Robinia pseudoacacia*). Approximately 5.5 acres of this community occur within the Project site.

Annual Grassland

Annual grassland on site is dominated by non-native annual grasses such as wild oat (*Avena* sp.) and brome grasses (*Bromus* spp.), as well as non-native broadleaved plants including tocalote, shortpod mustard, black mustard (*Brassica nigra*), and red-stemmed filaree. Native broadleaves are also frequent and include blue dicks and lupines. This community is found throughout the Project site and comprises approximately 38.9 acres.

---

[22] *Mullally, D.P. 1997.* Series and subseries of woodlands in the Santa Susana Mountains of Los Angeles. *Browning-Ferris Industries. Granada Hills, CA.*

[23] *Sawyer, John O., T. Keeler-Wolf, and Evens, Julie. 2009.* A Manual of California Vegetation. Second edition. *Sacramento: California Native Plant Society.*

Ornamental

Ornamental vegetation consists of landscaping and introduced species associated with the adjacent development. Ornamental areas within the Project site are dominated by non-native species including ice plant (*Carpobrotus* sp.), rosemary (*Rosmarinus officinalis*), Mediterranean tamarisk, purple sage, giant wild rye, mule fat, tocalote, shortpod mustard, and native needlegrass. Approximately 1.9 acres of this community occur on the eastern portion of the Project site in proximity with the off-site residential development.

Poison Oak-California Sagebrush/Giant Wild Rye Scrub (*Toxicodendron diversilobum – Artemisia californica/Elymus condensatus* Shrubland Association; G4 S4)

This community is characterized by a mix of poison oak, California sagebrush, and giant wild rye. Approximately 1.1 acres of this community occur in the western portion of the Project site

Purple Sage Scrub (*Salvia leucophylla* Shrubland Alliance; G4 S4)

This community is characterized by a dominance of purple sage with a subdominance of chaparral bushmallow and black sage and occurs on north-facing slopes throughout the Project site. Associated species observed within this community include California buckwheat, chaparral yucca, arroyo lupine, red-stemmed filaree, shortpod mustard, blue dicks, rattlesnake weed (*Euphorbia albomarginata*), holly-leaved cherry (*Prunus ilicifolia*), chia sage (*Salvia columbariae*), and non-native annual grasses. Approximately 8.8 acres of this shrubland alliance are found on north-facing slopes throughout the Project site.

Purple Sage Scrub/Annual Grassland (*Salvia leucophylla* Shrubland/Annual Grassland Alliance)

This community is characterized by a mix of the purple sage scrub dominant and subdominant species of purple sage, chaparral bushmallow, and black sage intermixed with the annual grassland components of as wild oat, brome grass, tocalote, shortpod mustard, and red-stemmed filaree. The community occurs on one north-facing slope within the center of the Project site. Associated species observed within this community include California buckwheat, arroyo lupine, blue dicks, rattlesnake weed, chia sage, and non-native grasses. Approximately 1.5 acres of this alliance are found on the Project site.

Toyon Chaparral (*Heteromeles arbutifolia* Shrubland Alliance; G5 S3)

This community is dominated by toyon with a subdominance of California ash. Associated species include purple sage, coyote bush, California sagebrush, and sugarbush. This shrubland alliance is found on slopes close to the northern boundary of the Project site and comprises approximately 6.8 acres on-site and 0.7 acre off-site within the proposed fuel modification zone.

Thick Leaf Yerba Santa Scrub (*Eriodictyon crassifolium* Provisional Shrubland Alliance; G3 S3)

This community is dominated by thick leaf yerba santa, which is a pioneer species. Associated species observed within this community include California sagebrush, purple sage, California buckwheat, California dodder, red-stemmed filaree, arroyo lupine, rattlesnake weed, and shortpod mustard. Approximately 0.6 acre of this shrubland alliance are found along the ridgelines in the northern portions of the Project site.

Sensitive Biological Resources

Sensitive biological resources are habitats or individual species that have been classified by either federal or State resource management agencies, or both, as threatened, endangered, or rare under the provisions of the Federal and California Endangered Species Acts (FESA and CESA, respectively).

Determinations of sensitive species that occur or could potentially occur within the Project site are based on one or more of the following: (1) the direct observation of the species on the property during the biological survey, (2) a record reported in the CNDDB, or (3) the Project site's location within the known distribution of a species and appropriate on-site habitat.

Sensitive Resource Classification

Federal Protection and Classifications

The FESA defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action, which could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

The USFWS instituted changes in the listing status of candidate species abandoning the C1/C2 model. Former C1 candidate species are now considered Federal Candidate species (FC). Some USFWS field offices (e.g., Sacramento) maintain lists of Federal Species of Concern (FSC). These species receive no legal protection and the use of the term does not mean that they will eventually be proposed for listing (http://www.fws.gov/sacramento/es_species/Accounts/Species-Concerns/es_species-concerns.htm). The Carlsbad Fish and Wildlife Office does not maintain such a list for their jurisdiction, which includes Los Angeles, Orange, Riverside, San Bernardino, Imperial, and San Diego Counties. All references to federally protected species in this report include the most current published status to which each species has been assigned by USFWS.

For purposes of this assessment, the following acronyms are used for Federal status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- FPE Federally proposed for listing as Endangered
- FPT Federally proposed for listing as Threatened
- FPD Federally proposed for delisting
- FC Federal candidate species (former Category 1 candidates)

State of California Protection and Classifications

California's Endangered Species Act defines an Endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a Threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a Threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of Endangered species or the list of Threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as Threatened or Endangered at the discretion of the Fish and Wildlife Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of Threatened or Endangered species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for "Endangered species, Threatened species, or candidate species for scientific, educational, or management purposes." Sections 1901 and 1913 of the California Fish and Wildlife Code provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Wildlife Code, Sections 4700 and 3511, respectively. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For the purposes of this assessment, the following acronyms are used for state status species:

- SE State listed as Endangered
- ST State listed as Threatened
- SR State listed as Rare
- SCE State candidate for listing as Endangered
- SCT State candidate for listing as Threatened
- SFP State Fully Protected
- SSC California Species of Special Concern

Los Angeles Audubon Society

The Los Angeles Audubon Society's Breeding Bird Atlas Project provided a conservation tool designed to highlight breeding bird species that may be at risk of extirpation in the county. The Los Angeles Audubon Society goals to examine the status of all bird species occurring in the county by including migrants and wintering birds, and to emphasize species at risk in the county that did not enjoy protection by either a formal listing (as under the state or Federal Endangered Species Acts) or by recognition as a California Bird Species of Special Concern by CDFW. The result of this effort produced results of sensitive bird species comprising 32 taxa not formally protected under listed by a resources agency and another 38 taxa already provided some protection by formal listing by a governmental resource agency and routinely included in a CEQA environmental impact analysis. One objective of the list is to assist conservation planners to evaluate open-space areas in Los Angeles County in terms of their potential conservation value to the county's at-risk bird species with areas determined to have high conservation potential being prioritized, such as identifying unprotected lands for protection or identifying degraded park lands that could provide high conservation value through restoration.

Sensitive Plant Communities

A review of the most current edition of CDFW *List of Vegetation Alliances and Associations* developed for the CNDDB (CDFG 2010[24]) and the *County of Los Angeles Oak Woodlands Conservation Management Plan* (County 2011) was conducted to determine if any of the plant communities mapped within the Project site are considered "rare and worthy of consideration" by lead and trustee agencies when reviewing project-related impacts assessed in environmental documents.

The Project site supports several plant communities that are considered sensitive by the CNDDB, including: 0.6 acre of Thick Leaf Yerba Santa Scrub (CDFW Code 37.090.00), 7.5 acres (6.8 acres on-site and 0.7 acre off-site within proposed fuel modification zone) of Toyon Chaparral (CDFW Code 37.911.00), 1.3 acres of California Bush Sunflower Scrub (CDFW Code 32.050.00), and 4.0 acres of Giant Wild Rye Grassland (CDFW Code 41.265.00).

Furthermore, the Los Angeles County Oak Woodlands Conservation Management Plan, adopted by the Board of Supervisors August, 23, 2011[25], recognizes oak woodlands as a sensitive resource. A total of 0.8 acre of Coast Live Oak Woodland occurs on-site.

Additionally, although not recognized by the CNDDB as a sensitive plant community, Mullally noted that Foothill Ash Scrub is a community with limited distribution in north Los Angeles County[26]; thus, it is a community of local interest. The Project site supports 3.8 acres of Foothill Ash Scrub. It should also be noted that although patches of needlegrass were observed on-site, the needlegrass was interspersed within scrub communities and were not dense enough (e.g., comprising 10 percent or greater of the community composition) to be called out as a separate community. Similarly, southern California black walnut trees

[24] *California Department of Fish and Game (CDFG). 2010.* List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.*

[25] *County of Los Angeles. August 23, 2011.* Los Angeles County Oak Woodlands Conservation Management Plan *Adopted by the Board of Supervisors.*

[26] *Mullally, D.P. 1997.* Series and subseries of woodlands in the Santa Susana Mountains of Los Angeles. *Browning-Ferris Industries. Granada Hills, CA.*

were observed on-site; however, these trees were not dominant species in the community and therefore did not constitute a southern California black walnut woodland community.

Sensitive Plant Species

Several sensitive plant species were reported in the CNDDB as occurring within the vicinity of the Project site including Mt. Pinos onion (*Allium howellii* var. *clokeyi*), Braunton's milk-vetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), round-leaved filaree (*California macrophylla*), Catalina mariposa lily (*Calochortus catalinae*), club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*), slender mariposa lily, late-flowered mariposa-lily (*Calochortus fimbriatus*), Plummer's mariposa lily, Peirson's morning glory, southern tarplant (*Centromadia parryi* ssp. *australis*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), Parry's spineflower (*C. parryi* var. *parryi*), white pygmy-poppy (*Canbya candida*), island mountain-mahogany (*Cercocarpus betuloides* var. *blancheae*), small-flowered morning-glory (*Convolvulus simulans*), Santa Susana tarplant (*Deinandra minthornii*), paniculate tarplant (*Deinandra paniculata*), Mt. Pinos larkspur (*Delphinium parryi* ssp. *purpureum*), slender-horned spineflower (*Dodecahema leptoceras*), Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*), Agoura Hills dudleya (*D. cymosa* ssp. *agourensis*), many-stemmed dudleya (*D. multicaulis*), San Gabriel bedstraw (*Galium grande*), Palmer's grapplinghook (*Harpagonella palmeri*), Newhall sunflower (*Helianthus inexpectatus*), Los Angeles sunflower (*H. nuttallii* ssp. *parishii*), vernal barley (*Hordeum intercedens*), Parry's sunflower (*Hulsea vestita* ssp. *parryi*), southern California black walnut, Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), fragrant pitcher sage (*Lepechinia fragrans*), Ross' pitcher sage (*Lepechinia rossii*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), Davidson's bush-mallow (*Malacothamnus davidsonii*), white-veined monardella (*Monardella hypoleuca* ssp. *hypoleuca*), spreading navarretia (*Navarretia fossalis*), Ojai navarretia (*N. ojaiensis*), Piute Mountains navarretia (*N. setiloba*), short-joint beavertail (*Opuntia basilaris* var. *brachyclada*), chaparral nolina (*Nolina cismontana*), California Orcutt grass (*Orcuttia californica*), Hubby's phacelia (*Phacelia hubbyi*), Mojave phacelia (*Phacelia mohavensis*), chaparral ragwort (*Senecio aphanactis*), and Greata's aster (*Symphyotrichum greatae*).

The above sensitive plant species were reported in the CNDDB or CNPS as occurring within the general area of the Project site. However, many species are not expected to occur on-site due to lack of suitable habitat, lack of suitable soils, or because the Project site was outside of the known range of the species.

Based on the CNDDB records and the presence of suitable habitat, sensitive plant species with the potential to occur on-site include Braunton's milk-vetch, Nevin's barberry, southern tarplant, San Fernando Valley spineflower, small-flowered morning-glory, paniculate tarplant, Coulter's goldfields, Robinson's pepper-grass, Ojai navarretia, Hubby's phacelia, chaparral ragwort, Greata's aster, club-haired mariposa lily, slender mariposa lily, Plummer's mariposa lily, and ocellated Humboldt lily. Three species not listed federally or by the state, and with a CRPR of 4 (values 1-3 are generally considered CEQA sensitive), had been found on-site previously: southern California black walnut (CRPR 4.2), Plummer's mariposa lily (CRPR 4.2), and Peirson's morning glory (CRPR 4.2). In addition, slender mariposa lily (CRPR 1B.2) was also found on the Project site, Focused sensitive plant surveys were conducted due to the presence of suitable habitat for these species within the Project site.

At least three southern California black walnut trees and seven (7) Peirson's morning glory were observed within the Project site development footprint during surveys conducted by PCR. In addition, fifteen (15) southern California black walnut trees were found outside of the development footprint, but still within the

Project site in Wickham Canyon and on the north-facing slopes in the southeastern corner of the Project site. The distinctive dried seed pods of 6 individual mariposa lily flowers, which had bloomed and gone to seed, were found on a ridgetop (**Figure 4.3-2,** *Sensitive Plants Locations*). With few exceptions, identification of the species of mariposa lily without the flower (and with only a seed pod to examine) is not considered reliable by most botanists. While several common species of mariposa lilies are known to occur in the area, it is presumed that the species of mariposa lily found on-site was the slender mariposa lily due to previous identification of this species on-site, as referenced by the *Wickham Property Botanical Inventory 2005* (Envicom 2005). A discussion of each sensitive plant species is presented in **Table 2**, *Sensitive Plant Species* in the Biological Resources Assessment (PCR 2015) provided in Appendix C of this Draft EIR.

While not a sensitive species, the coast live oak trees are provided protection under the County Oak Tree Ordinance. One of the coast live oak trees is located within the development footprint.

Sensitive Wildlife Species

A number of sensitive wildlife species were reported in the CNDDB as occurring within the general area of the Project site. Sensitive wildlife species reported in the CNDDB from the vicinity include vernal pool fairy shrimp (*Branchinecta lynchi*), monarch butterfly (*Danaus plexippus*), Gertsch's socalchemmis spider (*Socalchemmis gertschi*), Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), arroyo chub (*Gila orcuttii*), arroyo toad (*Anaxyrus californicus*), California red-legged frog (*Rana draytonii*), southern mountain yellow-legged frog (*Rana mucosa*), western spadefoot (*Spea hammondii*), silvery legless lizard (*Anniella pulchra pulchra*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), western pond turtle (*Emys marmorata*), rosy boa (*Charina trivirgata*), coast horned lizard (*Phrynosoma blainvillii*), two-striped garter snake (*Thamnophis hammondii*), Cooper's hawk (*Accipiter cooperii*), tricolored blackbird (*Agelaius tricolor*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), grasshopper sparrow (*Ammodramus savannarum*), golden eagle (*Aquila chrysaetos*), Bell's sage sparrow (*Artemisiospiza belli belli*), short-eared owl (*Asio flammeus*), burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), Swainson's thrush (*Catharus ustulatus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), prairie falcon (*Falco mexicanus*), California condor (*Gymnogyps californianus*), yellow-breasted chat (*Icteria virens*), loggerhead shrike (*Lanius ludovicianus*), white-faced ibis (*Plegadis chihi*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western mastiff bat (*Eumops perotis californicus*), hoary bat (*Lasiurus cinereus*), silver-haired bat (*Lasionycteris noctivagans*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), California leaf-nosed bat (*Macrotus californicus*), lodgepole chipmunk (*Neotamias speciosus speciosus*), San Diego desert woodrat (*Neotoma lepida intermedia*), southern grasshopper mouse (*Onychomys torridus ramona*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), bank swallow (*Riparia riparia*), yellow warbler (*Setophaga petechia*), western meadowlark (*Sturnella neglecta*), and American badger (*Taxidea taxus*).

Many species are not expected to occur on-site due to lack of suitable habitat, lack of suitable soils, or because the Project site was outside of the known range of the species. Sensitive wildlife species with the potential to occur within the Project site include: western spadefoot (SSC), silvery legless lizard [California Species of Special Concern (SSC)], rosy boa [US Forest Service Sensitive (USFSS)], coast horned lizard (SSC), coastal whiptail [Special Animal (SA)], golden eagle [California Fully Protected (SFP)], Cooper's hawk

[California Watch List (WL)], long-eared owl (*Asio otus*) (SSC), Swainson's hawk (WL), white-tailed kite (SFP), turkey vulture (*Cathartes aura*) [Los Angeles Audubon Sensitive (LAA)], lesser nighthawk (*Chordeiles acutipennis*) (LAA), prairie falcon (WL, LAA), loggerhead shrike (LAA), greater roadrunner (*Geococcyx californianus*) (LAA), California horned lark (WL), southern California rufous-crowned sparrow (WL), grasshopper sparrow (SA), Bell's sage sparrow (WL), hairy woodpecker (*Picoides villosus*) (LAA), coastal California gnatcatcher (FT), mountain bluebird (*Sialia currucoides*) (LAA), western meadowlark (Sturnella neglecta) (LAA), Townsend's big-eared bat, spotted bat (SSC), pallid bat (SSC), western mastiff bat (SSC), hoary bat (SA), San Diego black-tailed jackrabbit (SSC), southern grasshopper mouse (SCC) and San Diego desert woodrat (SSC). These species are not federal or State listed species; therefore, protocol surveys are not required and no focused wildlife surveys were conducted. A discussion of each sensitive wildlife species is presented in **Table 3**, *Sensitive Wildlife Species* in the Biological Resources Assessment (PCR 2015) provided in Appendix C of this Draft EIR.

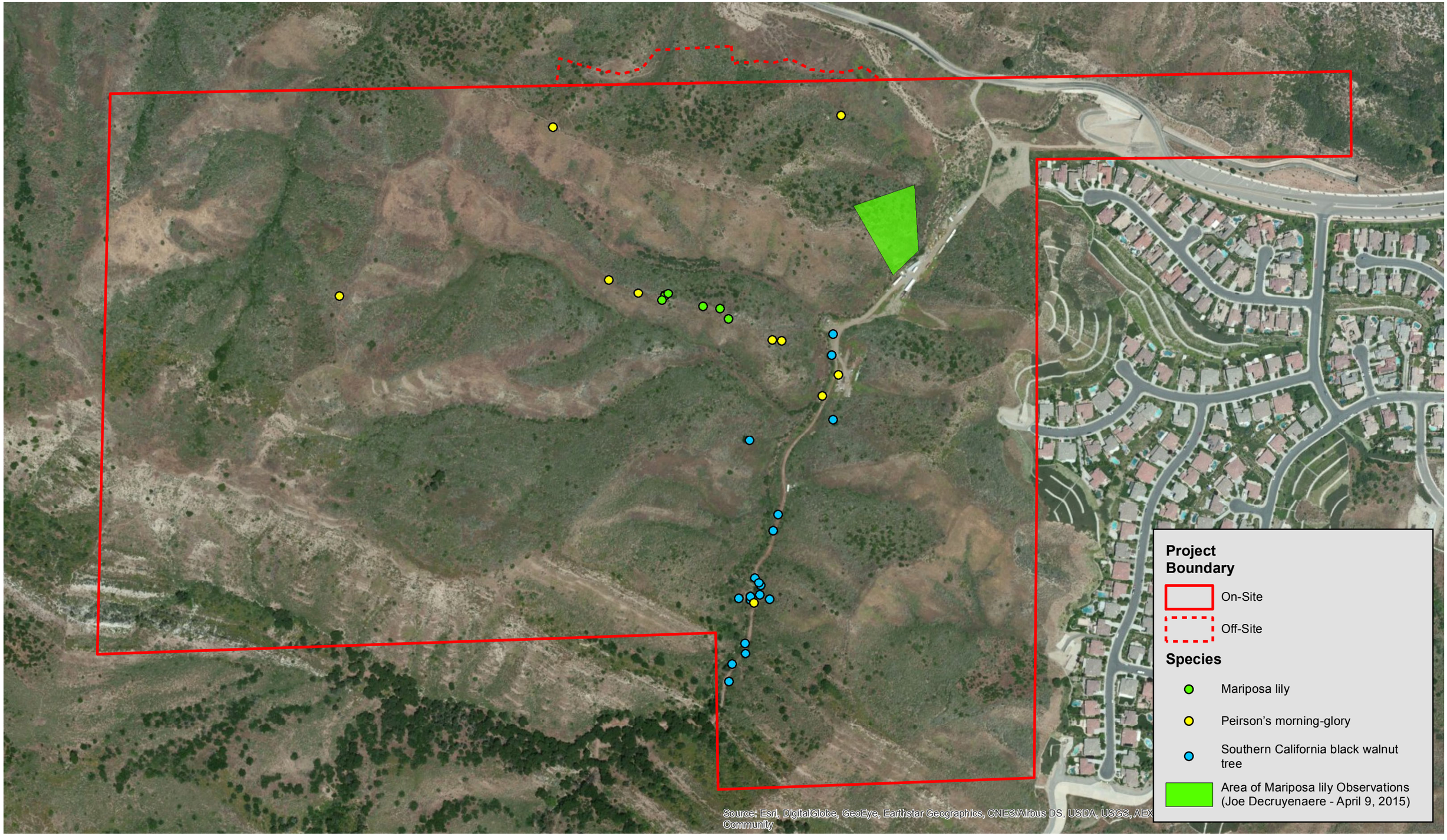
Jurisdictional Features

Two USGS "blueline streams" are mapped within the Project site, which correspond to the drainages occurring within Pico and Wickham Canyons. Pico Canyon Creek enters the northeast corner of the Project site and exits along the eastern boundary. Its tributary initiates within the Project site and exits in the northwest corner where it joins Pico Canyon Creek off-site. Wickham Canyon Creek, which is a named tributary to Pico Canyon Creek, enters in the southeastern corner of the Project site and continues north until its confluence with Pico Canyon Creek in the northeastern corner of the Project site. Wickham Canyon Creek and its tributaries are located throughout the central and eastern portion of the Project site and drain the majority of the site.

A jurisdictional delineation was conducted by Envicom in 2000. As summarized in the 2000 Envicom report, the Project site supports a total of 1.25 acres of USACE jurisdiction and 6.41 acres of CDFW jurisdictional streambed and associated riparian habitat (refer to Table 2 of the Envicom report). The 2000 jurisdictional delineation identified 0.98 acre of wetlands within the Project site in both Pico Creek and Wickham Canyon. It should be noted, however, that after the 2000 jurisdictional delineation was conducted, approximately 0.28 acre of wetlands and 0.47 acre of CDFW jurisdiction were removed as part of the Stevenson Ranch Laing Homes Southern Oaks development associated Pico Canyon Road improvements and Pico Canyon Channel creation. Thus, this DEIR assumes greater Project impacts than will occur, based upon prior permitted removal of jurisdictional areas in connection with other projects and other improvements.

Wildlife Movement

Wildlife movement activities usually fall into one of three movement categories: (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 (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). Although the nature of each of these types of movement are species specific, large open spaces will generally support a diverse wildlife community representing all types of movement (Fahrig and Merriam 1985). Each type of movement may also be represented at a variety of scales from non-migratory movement of amphibians, reptiles, and some birds, on a "local" level to many square mile home ranges of large mammals moving at a "regional" level. The location of the Project site supports all types of wildlife movement on some scale.



PCR

N

0 400 800 Feet

Sensitive Plant Locations

Aidlin Hills

Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.

FIGURE

4.3-2

This page intentionally blank.

Movement on a smaller or "local" scale occurs throughout the surrounding vicinity as well as within the Project site itself. Data gathered from biological surveys indicate that the Project site contains habitat that supports a variety of species of reptiles, birds, and mammals. The home range and average dispersal distance of many of these species may be entirely contained within the Project site and immediate vicinity. Populations of animals such as amphibians, reptiles, small mammals, and a few bird species may find all their resource requirements without moving far or outside of the Project site at all. Occasionally, individuals expanding their home range or dispersing from their parental range will attempt to move outside of the Project site.

From a regional perspective, the Project site is situated in an undeveloped area west of the City of Santa Clarita in unincorporated Los Angeles County (refer to **Figure 4.3-3**, *Regional Aerial Photograph*). Pico Canyon lies to the north of the Project site, residential communities lie to the east, and dedicated open space lies to the south and west. The Project site does not fall within any of the potential linkage areas described in the South Coast Missing Linkages (South Coast Wildlands 2008[27]). However, the Project site is immediately adjacent to the conserved lands that link portions of the linkage west of the project site to the Newhall Pass area, identified as an isolated part of the linkage.

The Project site is likely to provide live-in habitat and local-level movement habitat for a variety of insect, reptile, bird, and mammal species. The Project site is immediately adjacent to residential development to the east with high levels of human activities, and Pico Canyon Road to the north serves as an existing barrier to wildlife movement but would not be expected to be a substantial barrier as traffic is light and occurs during daylight hours. The Project site does not function as a regional wildlife movement corridor since it does not connect two or more habitat patches that would otherwise be fragmented or isolated from one another (i.e., due to surrounding development). Rather, the Project site is contiguous to an area that may serve more widespread movement, and is a part of the broader Santa Susana Mountains area that provides habitat and relatively unrestricted movement for numerous wildlife species, particularly along the drainages and ridgelines due to the steep topography of the Project site.

With regard to the South Coast Missing Linkages (SCML) design, it is important to note that the linkage design does not exist as a managed reserve, nor is there an adopted regional program to ensure that lands within the linkage will ever actually be protected. (The linkage does incorporate some protected lands, but these are protected independently.). The SCML design describes the minimum amount of land needed to provide connectivity between the core habitat areas of the Santa Monica Mountains and Los Padres National Forest given recent development patterns. Development decisions outside of this linkage could still adversely impact wildlife movement in the region, which is the reason the linkage is identified and its preservation becomes more important as additional development in the region is constructed. Avoidance of the SCML linkage does not necessarily equate to a less than significant effect on wildlife movement, but would not directly interfere with the least cost pathway between core habitat areas of the Santa Monica, San Gabriel, and Santa Susanna Mountains, which would likely remain open.

[27] *South Coast Wildlands. 2008.* South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion*. Produced in cooperation with partners in the South Coast Missing Linkages Initiative. Available online at http://www.scwildlands.org*

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provide thresholds of significance to determine whether a project would have a significant environmental impact regarding biological resources. Based on the size and scope of the Project and the potential for biological resources impacts, the thresholds below are including for evaluation in this EIR.

Would the Project:

Threshold BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)? (refer to Impact Statement 4.3-1);

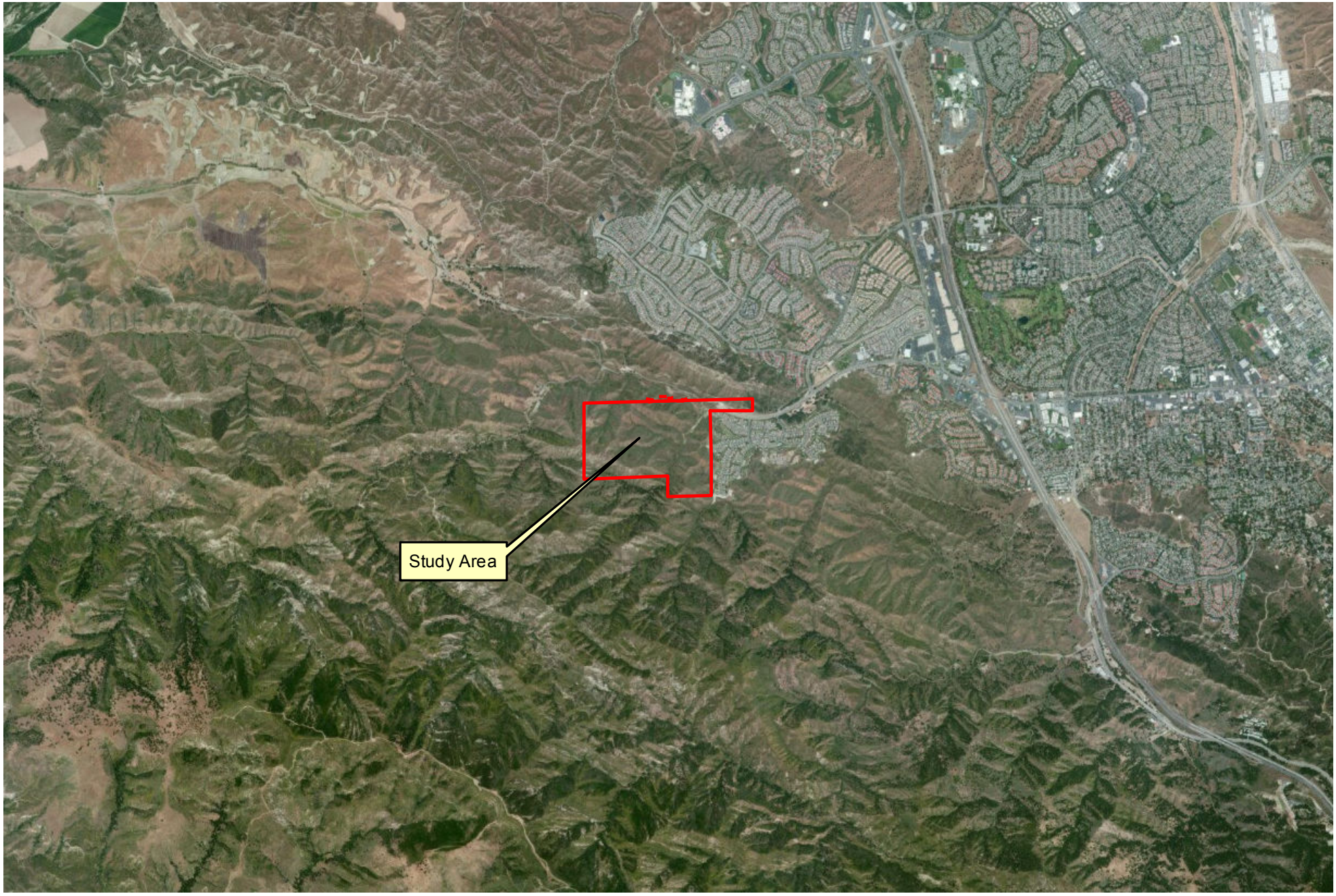
Threshold BIO-2: Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS? (refer to Impact Statement 4.3-2);

Threshold BIO-3: Have a substantial adverse effect on federally or state protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, and drainages) or waters of the United States, as defined by § 404 of the federal Clean Water Act or California Fish & Game code § 1600, et seq. through direct removal, filling, hydrological interruption, or other means? (refer to Impact Statement 4.3-3);

Threshold BIO-4: 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? (refer to Impact Statement 4.3-4);

Threshold BIO-5: Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)? (refer to Impact Statement 4.3-5);

Threshold BIO-6: Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.56, Part 16), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, § 22.56.215), and Sensitive Environmental Resource Areas (SERAs) (L.A. County Code, Title 22, Ch. 22.44, Part 6)? (refer to Impact Statement 4.3-6); or



PCR

N

0 0.75 1.5 Miles

Regional Aerial Photograph

Aidlin Hills

Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.

FIGURE

4.3-3

This page intentionally blank.

Threshold BIO-7: Conflict with the provisions of an adopted state, regional, or local habitat conservation plan? (refer to Impact Statement 4.3-7).

Project Design Features

As indicated in **Section 2.0, *Project Description***, of this Draft EIR, the Project applicant proposes the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. The Project would incorporate an open space linkage between Pico Creek and Upper Wickham Canyon—after realignment of Wickham Canyon—with the incorporation of a soft-bottom channel under the secondary emergency access road created by an arched culvert over the Wickham Canyon drainage. The Canyon would be planted with additional native trees and shrubs. Drought-tolerate, native landscaping would be used in public common areas to reduce water consumption.

Analysis of Project Impacts

Threshold BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?

Impact Statement 4.3-1: The Project site contains the sensitive species slender mariposa lily and Plummer's mariposa lily that occur within the Project development footprint and Project implementation would result in a significant impact. However, with the implementation of Mitigation Measure 4.3-1, impacts would be reduced to a less than significant level. The Project site also contains suitable habitat within which western spadefoot, four sensitive reptile species, 18 special-status bird species (six of which may nest on-site), five special-status bat species, and three additional mammal species may occur. If the bats are present on site within the development footprint, removal of roosts during the maternity season would result in a significant impact. In addition, mortality of the low mobile reptiles and disturbance to San Diego desert woodrat nests would result in a significant impact. Mitigation Measures 4.3-3 through 4.3-8 are proposed to survey the Project development area prior to construction and to relocate any special-status species, if observed. With the implementation of Mitigation Measures 4.3-1 through 4.3-8, which would provide protection to the special-status species that are found on the Project site, impacts would be reduced to a less than significant level.

Sensitive Plant Species

Many of the sensitive plant species discussed above may occur within the region, but are not expected to occur within the Project site due to the lack of suitable habitat, the fact that the Project site is outside of the known range or elevation for these species, or negative survey results.

A sensitive plant survey was conducted of the Project development footprint only. Two sensitive mariposa lily species, the slender mariposa lily (CRPR 1B.1) and Plummer's mariposa lily (CRPR 4.2), have been found on the Project site at multiple locations during previous surveys (Envicom 2005, Verna Jigour Associates 1999). The seed pods of six individual mariposa lily plants were found within the development footprint during the 2014 sensitive plant surveys (**Figure 4.3-4,** *Impacts to Sensitive Plants*). While several species of mariposa lily occur in the area, it is suspected that the mariposa lilies observed on-site in 2014 were slender

mariposa lily due to the previous observation of this species on-site (Envicom 2005) and because the fruit shape was more characteristic of slender mariposa lily than Plummer's mariposa lily. The latter species is more commonly associated with granitic substrates, as opposed to the apparent sand/siltstone-derived soils on-site (Verna Jigour Associates 1999). Plants classified as CRPR of 1B.1 are defined by the 1B as 'Rare, Threatened, or Endangered in California and elsewhere', and further defined by the decimal .1 as 'Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)'. Plants classified as CRPR 4.2 are defined by the 4 as 'Plants of limited distribution—a watch list, and a threat rank of .2 is classified as 'Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)'. Neither mariposa lily species is listed as federal or State threatened or endangered. Based on a review of the CNDDB, approximately 30,000 slender mariposa lilies occur within 70 locations throughout the region. However, the removal of approximately six slender mariposa lily individuals, while limited, is a potentially significant impact. It can be anticipated that mitigation in the form of transplantation or restoration within the Project open space would be implemented. Implementation of Mitigation Measure 4.3-1, as detailed below, would reduce this impact to a less than significant level.

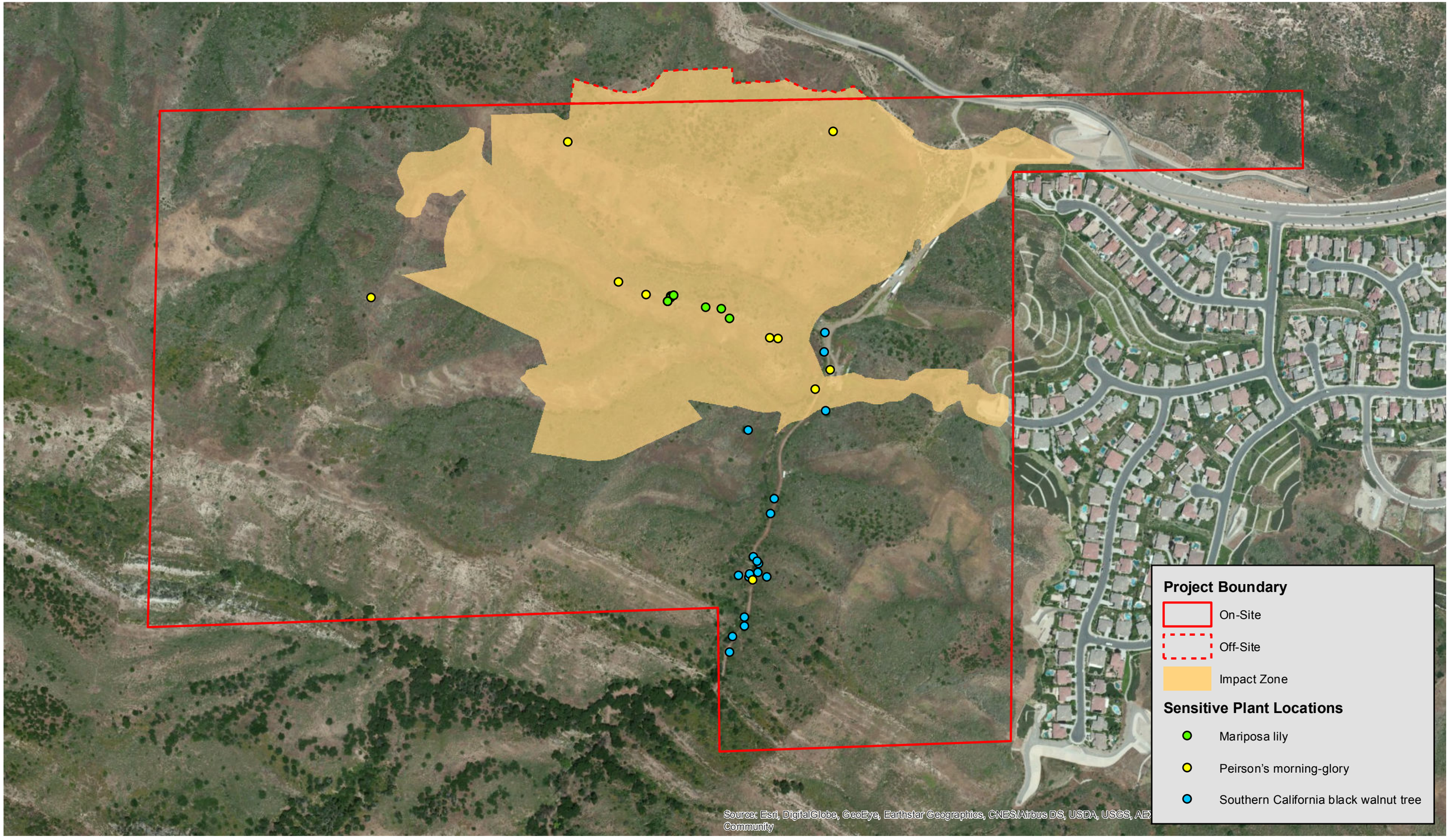
Three southern California black walnut trees (CRPR 4.2) occur within the development footprint and will be removed, as shown in Figure 4.3-4**.** Although exact numbers and locations of southern California black walnut outside of the Project development footprint were not recorded during the sensitive plant survey, there were many more on the slopes of Wickham Canyon in the southern portion of the Project site than within the development footprint; however, these will not be impacted by the Project. Because southern California black walnut is a low-sensitivity status CRPR 4.2 Watch List species and only three or fewer individuals would be impacted by the proposed Project, impacts to these three trees are less than significant, and no mitigation measures would be required. However, southern California black walnut will be included in the landscape plant palette for the replanting of manufactured slopes outside of the fuel modification zone.

Approximately seven (7) individual and small clusters of Peirson's morning glory (CRPR 4.2) were found during the 2014 surveys as well as being reported in the 1999 and 2005 surveys (Envicom 2005, Verna Jigour Associates 1999). Only one individual was recorded outside the development impact area. This species was found within open spaces between shrubs sparsely scattered throughout the Project site, both within and outside the impact areas, as well as on the surrounding slopes. Peirson's morning glory is a CRPR 4.2 Watch List species and up to seven individuals or clusters would be impacted by the proposed Project. The species is widespread on ridges and slopes, weakly climbing over chaparral, coastal scrub, and grasslands throughout the Newhall Ranch Specific Plan (USACE and CDFG 2009[28]). Therefore, the impact to the species is considered less than significant and no mitigation measures would be required. Peirson's morning glory will be included in the landscape plant palette for the revegetation of manufactured slopes outside of the fuel modification zone.

Mitigation Measures

Mitigation Measure 4.3-1 The loss of slender and Plummer's mariposa lily individuals from developed areas of the Project site shall be mitigated by the salvage and transplantation of bulbs to appropriate habitat areas in undeveloped portions of the Project site, prior to the issuance of a grading permit.

[28] *U.S. Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG). 2009.* Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR.



PCR

N

0 400 800 Feet

Impacts to Sensitive Plants

Aidlin Hills

Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.

FIGURE

4.3-4

This page intentionally blank.

A pre-construction survey during the peak flowering period for the slender mariposa lily and Plummer's mariposa lily (March to June) shall be conducted by a qualified biologist in the spring prior to construction. The location of each plant observed within the impact area shall be clearly delineated with brightly colored flagging as well as GPS coordinates recorded. Plants within the proposed development footprint and likely to be impacted shall be mitigated by bulb collection (during summer) and subsequent out-planting and propagation. A portion of the bulbs (no greater than 50%) shall then be placed into a suitable mitigation site in the undeveloped portion of the Project site or at an approved off-site location. A qualified biologist shall be selected by the Project Applicant to prepare and implement the mitigation plan. The detailed mariposa lily mitigation and monitoring plan shall include, at a minimum, the following requirements, and be approved by the County of Los Angeles prior to issuance of a grading permit:

- The seeds shall be collected from existing plants and cultivated in nursery until they are ready for transplant into mitigation area at the appropriate time of year or stored for direct seeding in the approved mitigation areas.
- The salvaged bulbs can be immediately transplanted at appropriate time of year to appropriate receptor sites within the Project Area that support suitable habitat matching the habitat characteristics from which the bulbs were collected.
- Mitigation areas used for bulb transplanting and seed sowing shall be as dedicated open space, with the location of the mitigation areas to be selected based upon the habitat quality and suitability. The qualified biologist will undertake pre-ground disturbance flowering season surveys to determine these suitable mitigation areas of comparable soils, slope exposure and vegetation cover.
- Mitigation shall be at a minimum of a 2:1 mitigation-to-impact ratio per individual plant, i.e., two replacement plants provided for every plant that is taken.
- Monitoring of the mitigation areas shall be conducted for five years or until performance standards are achieved—whichever is longer. Monitoring shall be conducted quarterly through the first year and annually thereafter for a total period of at least five years. Monitoring shall address issues of plant establishment and vigor, herbivory, and competition by non-native weedy plants.
- Performance standards shall be described to measure mitigation success by the end of the five-year monitoring program, and contingency measures shall be incorporated to be pursued in the event that performance standards prove to be untenable.

Sensitive Wildlife Species

Many of the sensitive wildlife species discussed above may occur within the region, but are not expected to occur within the Project site due to the lack of suitable habitat; however, western spadefoot (SSC), silvery legless lizard (SSC), coastal whiptail (SA), coast horned lizard (SSC), rosy boa (USFSS), golden eagle (SFP), Cooper's hawk (WL), Swainson's hawk (WL), white-tailed kite (SFP), turkey vulture (LAA), lesser nighthawk (LAA), prairie falcon (WL, LAA), greater roadrunner (LAA), loggerhead shrike (LAA), hairy woodpecker (LAA), mountain bluebird (LAA), California horned lark (WL), coastal California gnatcatcher (FT), western meadowlark (LAA),southern California rufous-crowned sparrow (WL, LAA), grasshopper sparrow (SSC), Bell's sage sparrow (WL, LAA), spotted bat (SSC), pallid bat (SSC), Townsend's bat (SCT), western mastiff bat (SSC), hoary bat (SA), San Diego black-tailed jackrabbit (SSC), southern grasshopper mouse (SSC) and San Diego desert woodrat (SSC) have the potential to occur on the site due to the presence of suitable habitat.

Golden eagle, Cooper's hawk, Swainson's hawk, white-tailed kite and loggerhead shrike could forage within the Project site but are not expected to breed because suitable habitat is not present. The highly mobile turkey vulture, greater roadrunner, California horned lark, southern California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow, Townsend's bat, western mastiff bat, hoary bat, spotted bat and pallid bat could nest within the Project site and would be vulnerable to disturbance during breeding season. However, suitable roosting habitat for the special-status bat species is primarily outside of the development footprint and would not likely be harmed by Project implementation. Similarly, marginal nesting habitat in rocky habitats (outside grading footprint) is possible for golden eagle and prairie falcon. The low mobility amphibian, reptile and mammal species would be susceptible to mortality if present during grading activities. None of the above species carry federal or state listings as threatened or endangered, and the extent and amount of habitat impacted is minimal and would not jeopardize regional population numbers. Therefore, any impacts to these species, if present, represent an adverse but potentially significant impact, and mitigation is warranted. The Project design would preserve approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. Implementation of Mitigation Measures 4.3-2 below and 4.3-5, as detailed below under Threshold BIO-4, would reduce this impact to a less than significant level.

Mitigation Measure 4.3-2 The Project design shall dedicate 165 acres as natural open space to provide habitat for western spadefoot, silvery legless lizard, coastal whiptail, coast horned lizard, rosy boa, golden eagle, Cooper's hawk (foraging), Swainson's hawk (foraging), white-tailed kite (foraging), prairie falcon, turkey vulture, lesser nighthawk, greater roadrunner, hairy woodpecker, mountain bluebird (foraging), loggerhead shrike (foraging), California horned lark, coastal California gnatcatcher, western meadowlark, southern California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow, spotted bat, pallid bat, Townsend's bat, western mastiff bat, hoary bat, San Diego black-tailed jackrabbit, southern grasshopper mouse and San Diego desert woodrat.

Mitigation Measure 4.3-3 Prior to the issuance of a grading permit for ground disturbance, construction, or site preparation activities, the applicant shall retain the services of a qualified biologist to conduct pre construction surveys for western spadefoot within all portions of the Project site containing suitable breeding habitat. Surveys shall be conducted during a time of year when the species is most likely to be detected (e.g., during a normal or greater rain year while rain pools are present and temperatures are suitable for spadefoot activity). If western spadefoot is identified on the Project site, western spadefoot habitat shall be created within suitable natural sites on the Project site outside the proposed development envelope under the direct supervision of the qualified biologist. The amount of occupied breeding habitat to be impacted by the Project shall be replaced at a 2:1 ratio. The actual relocation site design and location shall be approved by CDFW. The location shall be in suitable habitat, including suitable uplands, as far away as is feasible from any of the homes and roads to be built. The relocation ponds shall be designed such that they only support standing water for several weeks following seasonal rains. The biologist shall conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in the identified/created relocation ponds described above.

Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

Mitigation Measure 4.3-4 Prior to ground disturbance or grading activities, the applicant shall develop a relocation plan for rosy boa, coast horned lizard, silvery legless lizard, and coastal whiptail. The Plan shall include the timing and location of the surveys (based upon accepted protocols) that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the more appropriate habitats within the dedicated open space that are most appropriate for each species; the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recordation of the species and number of the animals relocated. The Plan shall be submitted to the County for its review and approval 60 days prior to any scheduled ground disturbing activities within potentially occupied habitat.

Thirty days prior to construction activities, qualified biologists shall conduct surveys to capture and relocate individual rosy boa, coast horned lizard, silvery legless lizard, and coastal whiptail per the County-approved relocation plan in order to avoid or minimize take of these special status species. The plan shall require a minimum of three (3) surveys conducted during the time of year/day when each species is most likely to be observed. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February), the surveys shall be conducted prior to this period and exclusion fencing shall be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. During the construction period, clearance surveys for special-status reptiles shall be conducted by a qualified biologist prior to the initiation of construction each day.

Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

Mitigation Measure 4.3-5 Thirty days prior to construction activities, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit. If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities avoided within a minimum of 200 feet during the offspring-rearing season (February 15 through July 1).

Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

Mitigation Measure 4.3-6 Thirty days prior to construction activities, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego desert woodrat. If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone, a construction fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified biologist. Clearing and construction within the fenced area shall be postponed or halted until young have left the nest. The

biologist shall be present during those periods when disturbance activities will occur near active nest areas to avoid inadvertent impacts to these nests.

Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

Mitigation Measure 4.3-7 Where nest avoidance is not possible, the project biologist shall clear vegetation from immediately surrounding active nests followed by a night without further disturbance to allow woodrats to vacate the nest. Preference will be given to non breeding-season destruction of the nests (May through October) and relocation of adults shall target undeveloped areas of the project, including salvage of nest-building material—rocks, sticks, etc. Each occupied nest shall subsequently be gently disturbed by a qualified wildlife biologist in possession of a scientific collecting permit to entice any remaining woodrats to leave the nest and seek refuge outside the Project construction area. The stick nests shall be carefully removed from the Project construction area and be placed near a suitable vegetation or rocky substrate similar to original nest location. The project biologist shall document all woodrat nests moved and provide a written report to the County.

Mitigation Measure 4.3-8 The project applicant shall be responsible to avoid the direct loss of non-game animals, including bats, during construction activities. Activities that could result in disturbance impacting bat maternity or hibernation roosts shall be scheduled to avoid sensitive periods (April 1 to September 15 for maternity roosts and December 1 to March 31 for hibernation roosts). Where potential roost sites must be removed, a qualified biologist shall conduct a pre-construction survey to identify those structures and habitats proposed for disturbance that could provide bat hibernacula, nursery colony roosting habitat for bats or subterranean burrows for wildlife. Each structure or suitable habitat area identified as potentially supporting an active bat roost or burrow shall be closely inspected by the biologist no greater than seven (7) days prior to disturbance to more precisely determine the presence or absence of roosting bats or non-game wildlife.

To avoid the potential direct loss of special-status bat species from disturbance to rocky cliff crevices that may provide maternity roost habitat, the following steps shall be taken:

- To the extent feasible, disturbance to suitable bat roosting habitat shall be scheduled from September 16 – November 30, outside of the maternity roosting and hibernation seasons. The most suitable bat roosting habitats on the Project site are the rocky outcrops at the southern boundary (approximately 800 feet distant from the proposed construction area) and within oak and walnut trees. A bat specialist shall conduct a pre-construction survey of the development footprint and surrounding 200 feet for possible bat roosting habitat within these areas. If the bat specialist determines that no roosting bats are present within the survey area, no further action shall be necessary in regard to roosting bat species (both special-status and non special-status, non-game species).
- If maternity or hibernation roosts are found, a 200-foot buffer around maternity roosts within or adjacent to the development footprint shall be left in place until the end of the maternity or hibernation season, whereupon a qualified bat specialist must

determine that the bats are no longer hibernating or that young have become volant before the buffer may be removed.

- If bat roosts are impacted during construction, the project applicant will provide replacement roosts within similar habitat and with a gap no greater than 3.8 centimeters and interior surface comparable to that of the original roost. The replacement roost should be swabbed with bat guano and urine collected from the original roost.
- The bat specialist shall document all survey results and prepare a summary report to the County. If Townsend's big-eared bat is detected during pre-construction surveys, all construction-related activity shall be halted immediately and CDFW shall be notified. Work may only resume subsequent to CDFW approval.

Threshold BIO-2: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?

Impact Statement 4.3-2: Implementation of the proposed Project could result in significant impacts to sensitive natural communities. However, implementation of the Mitigation Measure 4.3-9 would reduce potentially significant impacts to a less than significant level.

Sensitive Plant Communities

Impacts to the plant communities resulting from the development of the proposed Project, including the fuel modification zone, are shown in **Figure 4.3-5**, *Impacts to Plant Communities* and impact acreages are summarized in **Table 4.3-2**, *Impacts to Plant Communities*. As stated above under Sensitive Plant Communities, five of the plant communities that occur within the Project site are considered sensitive.

Implementation of the Project would impact 0.5 acre (inclusive of 0.1 acre from fuel modification) of the 0.6 acre of Thick-leaved Yerba Santa Scrub, 0.7 acre (inclusive of 0.6 acre from fuel modification) of the 4.0 acres of Giant Wild Rye Grassland, all of the 1.3 acres of California Bush Sunflower Scrub, and 6.0 acres (inclusive of 1.9 acres from fuel modification) of 7.5 acres (including 0.7 acre off-site) of Toyon Chaparral. Impacts to sensitive plant communities are potentially significant. Implementation of Mitigation Measure 4.3-3, as detailed below, would reduce this impact to a less than significant level.

Although CDFW does not consider coast live oak woodland to be a sensitive plant community, Los Angeles County requires an evaluation for the potential for significant impacts to oak woodlands as required under CEQA Section 21083.4. The two coast live oak woodlands in the Project site are south of the development footprint and would not be affected by the Project. Therefore, impacts to oak woodland would not occur and mitigation is not required.

Table 4.3-2

Impacts to Plant Communities

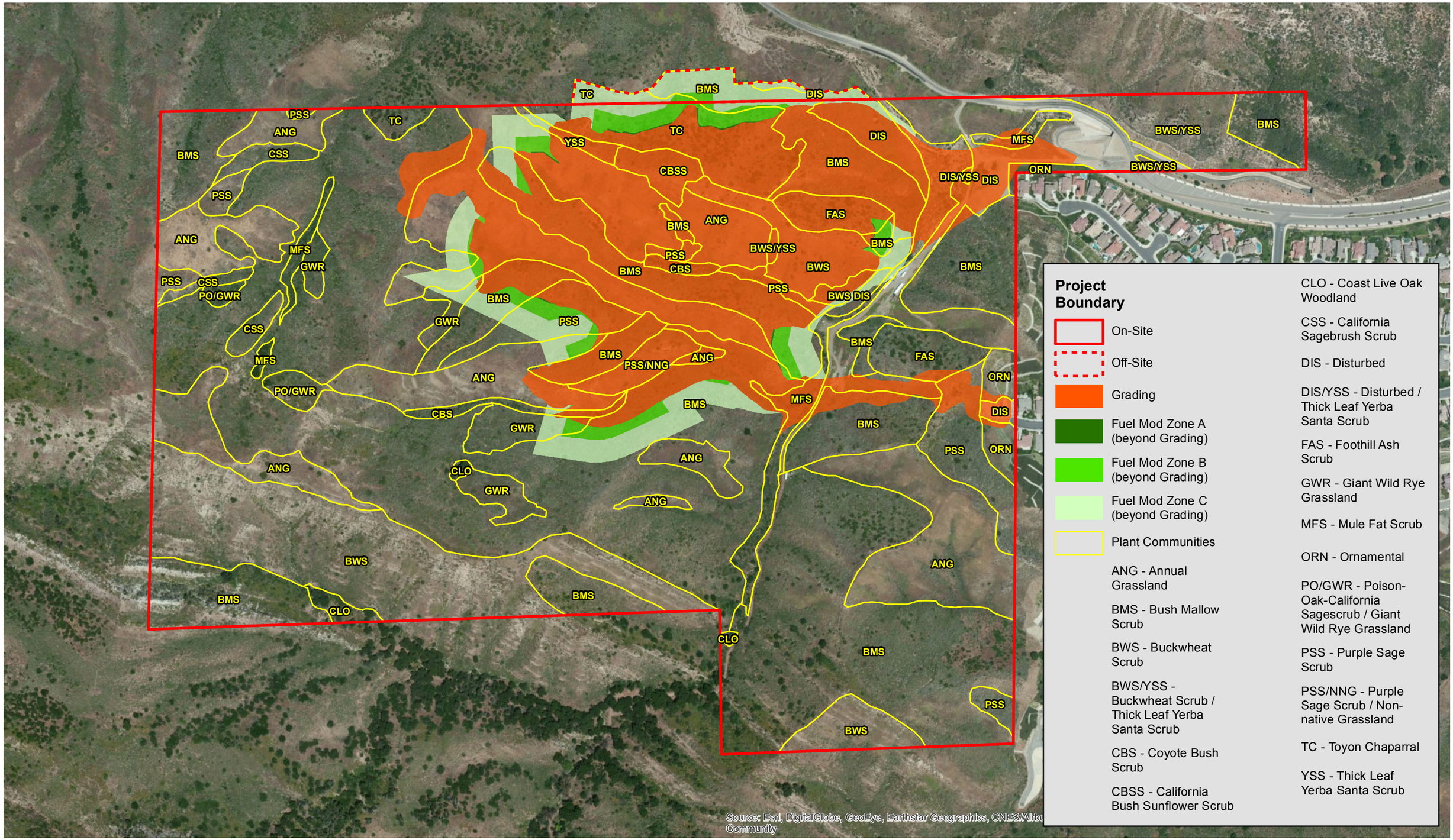
Plant Communities	On-site (acres)	Grading Impacts (acres)	Fuel Mod Impacts (acres)	Total Impacted (acres)	Total Remaining (acres)
Bush Mallow Scrub	110.5	16.4	5.9 (1.5)	22.3	88.2
Buckwheat Scrub	24.0	3.6	0.4	4.0	20.0
Buckwheat Scrub/Thick Leaf Yerba Santa Scrub	4.6	0.1	0.0	0.1	4.4
Coyote Bush Scrub	1.2	0.6	0.0	0.7	0.6
California Bush Sunflower Scrub	1.3	1.3	0.0	1.3	0.0
Coast Live Oak Woodland	0.8	0.0	0.0	0.0	0.8
California Sagebrush Scrub	1.9	0.0	0.0	0.0	1.9
Disturbed	13.1	4.8	0.4 (0.4)	5.2	8.0
Disturbed/Thick Leaf Yerba Santa Scrub	0.1	0.1	0.0	0.1	0.0
Foothill Ash Scrub	3.8	1.8	0.1	1.8	2.0
Giant Wild Rye Grassland	4.0	0.1	0.6	0.7	3.3
Mule Fat Scrub	5.5	2.3	0.2	2.6	3.0
Annual Grassland	38.9	13.1	2.5	15.6	23.3
Ornamental	1.9	0.2	0.0	0.2	1.7
Poison Oak-California Sagebrush Scrub/ Giant Wild Rye Grassland	1.1	0.0	0.0	0.0	1.1
Purple Sage Scrub	8.8	2.6	1.2	3.8	5.0
Purple Sage Scrub/Annual Grassland	1.5	1.5	0.0	1.5	0.0
Toyon Chaparral	6.8	4.1	1.9 (0.7)	6.0	0.9
Thick Leaf Yerba Santa Scrub	0.6	0.4	0.1	0.5	0.0
Total	**230.4**	**53.2**	**13.2**	**66.4**	**164.0**

Source: PCR Services Corporation, 2015. Acreages in parentheses are off-site impacts.

Mitigation Measures

Mitigation Measure 4.3-9 Impacts to sensitive plant communities (i.e., Thick-leaved Yerba Santa Scrub, Giant Wild Rye Grassland, California Bush Sunflower Scrub, Toyon Chaparral, and Foothill Ash Scrub) shall be mitigated using one or more of the following:

- On-site restoration or enhancement of sensitive plant communities (e.g., transplantation, seeding, or planting of representative plant community species; salvage/dispersal of duff and seed bank) at a ratio no less than 1:1 for temporary impacts and not less than 2:1 for permanent impacts, subject to the approval of the County of Los Angeles.



PCR

N

0 400 800 Feet

Impacts to Plant Communities

Aidlin Hills

Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.

FIGURE

4.3-5

This page intentionally blank.

- Purchase of mitigation credits at an agency-approved off-site mitigation bank within Los Angeles County or in-lieu fee program at a ratio no less than 1:1, subject to the approval of the County of Los Angeles.

If mitigation is to occur on-site or off-site, a habitat mitigation and monitoring plan shall be prepared and approved by the County Biologist prior to the issuance of a grading permit. The plan shall focus on the creation of equivalent habitats within disturbed habitat areas of the project site or off-site. In addition, the plan shall provide details as to the implementation of the plan, maintenance, and future monitoring including the following components:

- Description of existing sensitive habitats on the Project site;
- Summary of permanent impacts to sensitive communities based on approved Project design;
- Proposed location for mitigation areas, either on-site or off-site, with description of existing conditions prior to mitigation implementation;
- Detailed description of restoration or enhancement goals;
- Description of implementation schedule, site preparation, erosion control measures, planting plans, and plant materials;
- Provisions for mitigation site maintenance and control on non-native invasive plants; and
- Monitoring plan, including performance standards, adaptive management measures, and monitoring reporting to the County of Los Angeles.

Threshold BIO-3: Would the project have a substantial adverse effect on federally or state protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, and drainages) or waters of the United States, as defined by § 404 of the federal Clean Water Act or California Fish & Game code § 1600, et seq. through direct removal, filling, hydrological interruption, or other means?

Impact Statement 4.3-3: The Project site contains federally protected wetlands and potentially significant impacts to wetlands would occur from Project implementation. In addition, the Project site supports jurisdictional waters of the U.S. and CDFW jurisdictional streambed and associated riparian habitat. However, compliance with applicable regulatory requirements and implementation of the Mitigation Measure 4.3-10 would reduce potentially significant impacts in these regards to a less than significant level.

In 2000, Envicom performed a jurisdictional delineation on the Project site. In 2014, PCR conducted a cursory review and update to CDFW jurisdiction mapped on-site which included current site conditions (including the Pico Canyon Creek Channel and the Pico Canyon Road improvements). To provide a conservative analysis consistent with the 2000 jurisdictional delineation, some areas were mapped during PCR's 2014 site visit that did not show obvious jurisdictional indicators (e.g., large portions of the Wickham Canyon tributaries).

The 2000 jurisdictional delineation identified 0.98 acre of wetlands within the Project site in both Pico Creek and Wickham Canyon. The proposed Project would result in impacts to a maximum[29] of 1.22 acre of USACE/RWQCB "waters of the U.S.," 6.23 acres of CDFW jurisdictional streambed and associated riparian habitat, and 0.70 acre of USACE/RWQCB and CDFW jurisdictional wetland (**Figure 4.3-6** *Impacts to Jurisdictional Features*). These acreage assessments are considered conservative and greater than the impact acreages that are expected once a formal updated jurisdictional delineation is completed prior to permitting processing. Impacts to jurisdictional waters and wetlands are considered potentially significant. Mitigation Measure 4.3-4, described below, would reduce these impacts to a less than significant level.

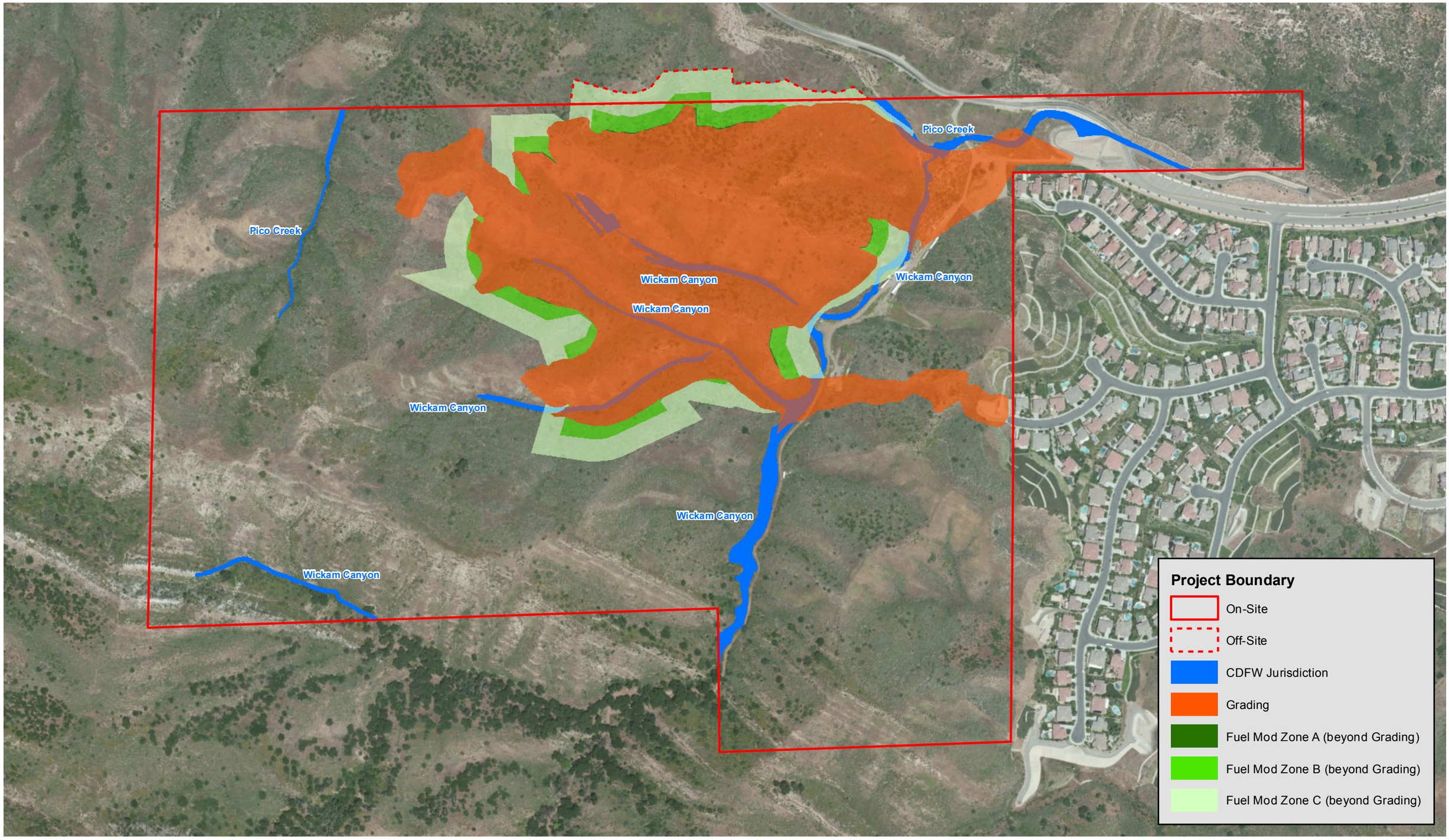
Mitigation Measures

Mitigation Measure 4.3-10 Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the Project applicant shall obtain a CWA Section 404 permit from the USACE, a CWA Section 401 permit from the RWQCB, and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the CDFW, where the project warrants. The following would be incorporated into the permitting, subject to approval by the regulatory agencies:

- On- or off-site restoration or enhancement of USACE/RWQCB jurisdictional "waters of the U.S."/"waters of the State" and wetlands at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program within Los Angeles County or within the same watershed acceptable to the County, where the location has comparable ecological parameters such as habitat types, species mix and elevational range.
- On- or off-site restoration or enhancement of CDFW jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program within Los Angeles County or within the same watershed acceptable to the County, where the location has comparable ecological parameters such as habitat types, species mix and elevational range.

Threshold BIO-4: Would the project 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?

[29] *PCR's 2014 site visit did not include a formal updated jurisdictional delineation. Based on current regulatory requirements and PCR's observations during the 2014 assessment, it is anticipated that an updated jurisdictional delineation performed for the regulatory permitting process will indicate a reduced total wetland/waters acreage mapped within the Project site, and associated impacts to jurisdictional areas.*



PCR

N

0 400 800 Feet

Impacts to Jurisdictional Features

Aidlin Hills

Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.

FIGURE

4.3-6

This page intentionally blank.

Impact Statement 4.3-4: The Project site does not function as a regional wildlife movement corridor and would not substantially interfere with movement of native wildlife species. However, the Project site contains vegetation suitable for nesting birds. Therefore, the Project may result in significant impacts on nesting bird species that are protected under the California Fish and Game Code and the MBTA if removal, clearing, or grubbing were to occur during the general avian nesting season (February 15 to August 31). However, implementation of Mitigation Measure 4.3-11 would reduce impacts to a less than significant level.

Wildlife Movement

The Project site does not function as part of a regional wildlife movement corridor since it does not connect two or more habitat patches that would otherwise be fragmented or isolated from one another (i.e., due to surrounding development). Nevertheless, the Project site is likely to provide live-in habitat and local-level movement habitat for a variety of insect, reptile, bird, and mammal species. The Project site is contiguous to preserved open space to the south, which contributes to the SCML Santa Monica – Sierra Madre Connection, helping to preserve that least-cost pathway, and is a peripheral part of the broader Santa Susana Mountains area that provides habitat and relatively unrestricted movement for numerous wildlife species, particularly along drainages and ridgelines similar to those found on the Project site. Existing disturbance from human activities (e.g., nearby residences to the east and visitors to the historic site of Mentryville to the west), and existing barriers to wildlife movement (e.g., Pico Canyon Road to the north) may impede some local and regional wildlife movement through the Project site, and development of the proposed project would further restrict wildlife use to undeveloped portions of the proposed Project site. Project design features and mitigation measures are incorporated to avoid edge effects on preserved natural open space to the south and to encourage continued through-movement by wildlife along drainages and within undeveloped portions of the Project site, rendering this impact less than significant.

Potential short-term construction-related impacts include hydrologic and water quality alterations; erosion and chemical and toxic compound pollution in uplands; dust; construction noise; vibration; lighting; increased human activity; temporary fencing; accidental clearing, trampling, and grading; oak tree root impacts; and trash and other debris. Secondary impacts include traffic noise, night lighting; altered hydrology; watershed-level water quality impacts; downstream effects of drainage facilities; downstream effects of water quality control facilities; stream restoration and enhancement activities; habitat fragmentation; altered natural wildfire regimes; increased human activity; and increased invasive plants.

Indirect impacts are considered to be those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals). Indirect impacts may be associated with the construction and/or eventual habitation/operation of a project; therefore, these impacts may be both short-term and long-term in their duration. Indirect impacts to nesting birds, such as noise impacts during construction or line-of-sight impacts disrupting nesting behavior, are not anticipated to be significant.

These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to study areas. Pets and stray and feral animals may affect wildlife through increased predation and by outcompeting smaller native species (e.g., woodrats) for available resources. Project development would cause local effects on resident wildlife species, may also cause regional impacts on wildlife corridors. This could result for habitat

fragmentation and altering wildlife behavior. Any increase in distance between wildlife habitats as a result of development could decrease the number of species in the Project vicinity. While impacts caused by "edge effects" would not be avoided by the Project, these impacts would be minimized by the new residential development footprint being an incremental extension of the existing Southern Oaks residential community. The Project design open space areas on the western and southern Project boundaries would buffer the new development from the existing preserved areas in the vicinity.

The effects of the proposed Project on the chain of conserved open space parcels lying to the south of the project site that connect a portion of the SCML linkage of the Santa Susana Mountains north through the Newhall Ranch Specific Plan open space areas would be incremental to that caused by other residential development in the region. However, the Project design would not cause a barrier to movement but would cause interference of existing patterns.

The Project development footprint is clustered adjacent to existing development (e.g., Pico Canyon Road to the north and nearby residences to the east), and the Project avoids impacts to the southern and western portions of the Project site. The emergency secondary fire access road crossing of Wickham Canyon would be designed with a soft bottom with sufficient height and width to allow local wildlife movement to continue along the channel. Thus, wildlife movement through these portions of the Project site would still continue. However, because a small area of Wickham Canyon will be constrained by the construction of the emergency secondary fire access road and the confluence of Wickham Canyon and Pico Canyon would be replaced by the Project entry access road, local wildlife movement would be impeded and new travel routes would be required by these animals.

The Project open space dedicated under Mitigation Measure 4.3-2 would function as wildlife habitat in addition to buffering the residential development from the natural public open spaces to the west and south of the Project site. The County's Rural Outdoor Lighting District Ordinance promotes dark skies that benefits wildlife in rural areas adjacent to residential land uses. The regulations include limitations on allowable light trespass, fully shielding outdoor lighting, maximum heights of fixtures, and street lighting in rural areas. In addition, the fuel modification landscape plan would provide a transition from the ornamental landscape plant palette to the natural vegetation of the open space areas. Manufactured slopes would be managed by the Project homeowners association but the open space area would be dedicated to a suitable agency to be managed as natural habitat.

Therefore, implementation of the proposed Project is not expected to significantly alter movement through the Project site but would change existing movement patterns. Impacts to wildlife movement are considered less than significant, and no mitigation is required.

Migratory Species

The Project site has the potential to support both raptor and songbird nests due to the presence of trees, shrubs, and ground cover. Nesting activity typically occurs from February 15 to August 31 for songbirds and January 15 to August 31 for raptors. Disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act (16 U.S.C. 703 *et seq*.). In addition, nests and eggs are protected under Fish and Wildlife Code Section 3503. The removal of vegetation during the breeding season is considered a potentially significant impact absent mitigation. Mitigation Measure 4.3-11, provided below, would reduce this impact to a less than significant level. The mitigation measure would require a nesting bird survey to determine if any nests

exist. If nests are found, an exclusion buffer would be established to provide protection to the nesting birds. A qualified biologist would monitor to determine when nesting activities cease or all young have fledged at which time construction could continue in that area.

Bat roosts may serve both migratory and nursery functions, depending on a number of factors, including season of use. Disruption of roosting sites could therefore affect the migration behavior of bat species. The Project development footprint stays out of rocky areas where some bat roosting may occur. For potential bat roosts within trees, Mitigation Measure 4.3-8 is proposed to render project impacts to a less than significant level.

Mitigation Measures

Mitigation Measure 4.3-11 Prior to the issuance of any grading permit that would require removal of potential habitat for raptor and songbird nests, the Project applicant shall demonstrate to the satisfaction of the County of Los Angeles that either of the following have been or will be accomplished:

- Proposed project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season which generally runs from February 1-August 31 (as early as January 1 for some raptors) to avoid take of birds or their eggs. Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86), and includes take of eggs or young resulting from disturbances which cause abandonment of active nests. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted.
- If avoidance of the avian breeding season is not feasible, a qualified biologist with experience in conducting breeding bird surveys shall conduct weekly bird surveys beginning thirty days prior to the initiation of project activities, to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 500 feet of the disturbance area. The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of project activities. If a protected native bird is found, the project proponent should delay all project activities within 300 feet of on- and off-site suitable nesting habitat (within 500 feet for suitable raptor nesting habitat) until August 31. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptor nests) or as determined by a qualified biological monitor, must be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Flagging, stakes, or construction fencing should be used to demarcate the inside boundary of the buffer of 300 feet (or 500 feet) between the project activities and the nest. Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. The project proponent should provide the Department of Regional Planning the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds.

- If the biological monitor determines that a narrower buffer between the project activities and observed active nests is warranted, he/she should submit a written explanation as to why (e.g., species-specific information; ambient conditions and birds' habituation to them; and the terrain, vegetation, and birds' lines of sight between the project activities and the nest and foraging areas) to the Department of Regional Planning and, upon request, the CDFW. Based on the submitted information, the Department of Regional Planning (and the CDFW, if the CDFW requests) will determine whether to allow a narrower buffer.

  The biological monitor shall be present on site during all grubbing and clearing of vegetation to ensure that these activities remain within the project footprint (i.e., outside the demarcated buffer) and that the flagging/stakes/fencing is being maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The biological monitor shall send weekly monitoring reports to the Department of Regional Planning during the grubbing and clearing of vegetation, and shall notify the Department of Regional Planning immediately if project activities damage active avian nests.

Threshold BIO-5: Would the project convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)?

Impact Statement 4.3-5: The Project site contains oak woodlands that are outside the development footprint and would not be impacted by Project implementation. Therefore, Project impacts would be less than significant level and no mitigation is necessary.

Oak Woodlands

Approximately 0.8 acre of oak woodland were found on two north-facing slopes in the southwestern portion of the Project site and near Wickham Canyon in the south portion of the Project site. These oak woodlands are south of the development footprint and would not be affected by the Project, and consequently there would be no impact to oak woodlands. The proposed Project would be consistent with the goals and policies of the County's Oak Woodlands Conservation Management Plan because the Project design retains the on-site coast live oak woodland. Therefore, impacts to oak woodland would be less than significant, and no mitigation would be required.

Unique Native Trees

Three southern California black walnut trees (CRPR 4.2) occur within the development footprint and will be removed, as shown in Figure 4.3-6**.** Fifteen (15) southern California black walnut trees were found outside of the development footprint, on the north-facing slopes of the southeastern portion of the Project site. However, these will not be impacted by the Project because they are located outside the development area. Southern California black walnut is a low-sensitivity status CRPR 4.2 Watch List species and only up to three individuals would be impacted by the proposed Project. In addition, southern California black walnut will be included in the landscape plant palette for the replanting of manufactured slopes outside of the fuel modification zone, as a project design feature. Consequently, impacts to these three trees are less than significant and no mitigation measures would be required.

Threshold BIO-6: Would the project conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.56, Part 16), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, § 22.56.215), and Sensitive Environmental Resource Areas (SERAs) (L.A. County Code, Title 22, Ch. 22.44, Part 6)?

Impact Statement 4.3-6: The Project is in substantial conformance with County policies or ordinances protecting biological resources. One oak tree would be removed with Project implementation and the removal would be consistent with the provisions of the County Oak Tree Ordinance. Implementation of Mitigation Measure 4.3-12 would reduce oak tree impacts to less than significant.

Oak Tree Ordinance

Oak trees are protected under the County of Los Angeles Oak Tree Ordinance [(Ord. 88-0157 § 2, 1988: Ord. 82-0168 § 2 (part), 1982) as outlined in Chapter 22.56.2050 *et seq*. of the Los Angeles County Code]. The County of Los Angeles Oak Tree Ordinance requires a permit to remove oak trees with a diameter at breast height (DBH) of 8 inches or more. A technical report must be prepared by a certified arborist providing an inventory of trees on a site, as well as a Tree Protection, Replacement and Mitigation Plan. The proposed Project will remove one coast live oak tree with DBH of 14.5 inches, as shown in **Figure 4.3-7**, *Impacts to Oak Trees*. The technical report was prepared on June 13, 2013 by PCR, which recommends at least two replacement trees be planted in "open space" within the Project site. Any impacts to protected oaks without incorporation of appropriate mitigation measures would be considered significant. Implementation of Mitigation Measure 4.3-6 below would reduce this impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure 4.3-12 The Project applicant shall mitigate through a two-to-one mitigation to impact ratio for the removal of one coast live oak trees. Each replacement tree shall be at least a 15-gallon size specimen and measure at least one inch in diameter one foot above the base. The Project applicant shall coordinate with the County Forester and Department of Regional Planning (DRP) prior to removing of the oak tree on the acceptable location for the replacement planting location. The location of mitigation tree planting shall not conflict with any other preservation or mitigation efforts and the location shall be approved by DRP and the Forester prior to the issuance of a grading permit. The Project applicant shall comply with the conditions of the approved Oak Tree Permit 00-136.

Significant Ecological Area

The Project was originally submitted prior to the 2012 adoption of the Santa Clarita Valley Area "One Valley, One Vision" plan, consequently the Project site is subject to the policies of the 1990 Santa Clarita Valley Area Plan. Although the Project site is designated within the Santa Susana Mountains/Simi Hills Significant Ecological Area (SEA) in the 2012 area plan, the SEA in the 1990 Santa Clarita Valley Area Plan did not include the Project site. The Project would provide approximately 165 acres of natural open space (approximately 71 percent of the Project site), which would buffer natural areas to the south and west of the Project site from grading and development associated with the Project. The Project is not subject to the provisions of any local policies or ordinances pertaining to SEAs.

Threshold BIO-7: Would the project conflict with the provisions of an adopted state, regional, or local habitat conservation plan?

Impact Statement 4.3-7: *The Project does not conflict with any adopted state, regional or local habitat conservation plan. Therefore, no impact would occur.*

The Project does not occur within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The U.S. Fish and Wildlife Service has designated critical habitat for the coastal California gnatcatcher approximately one mile south and southeast of the Project site. Critical habitat for arroyo toad, southwestern willow flycatcher and least Bell's vireo is designated approximately three miles to the north of the Project site. The Project site is not located within any designated critical habitat for any Federal endangered or threatened species. As such, no impacts will occur.

3. CUMULATIVE IMPACTS

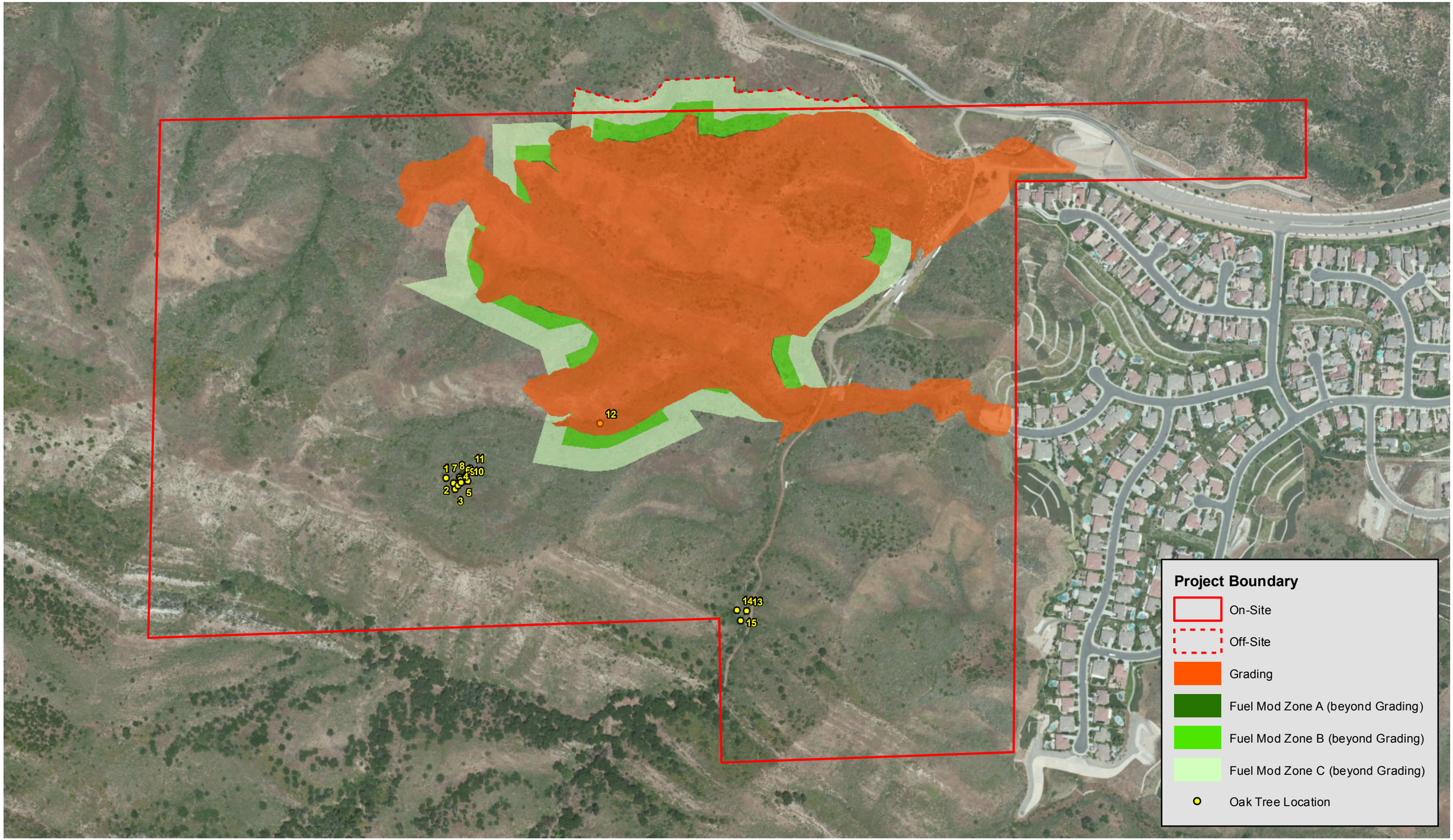
Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (BIO-1 through BIO-7) analyzed in this EIR section?

Impact Statement 4.3-8: *The Project combined with the related projects would not result in substantial adverse effects related to biological resources in the Project area. Cumulative biological resource impacts would be less than significant and not cumulatively considerable.*

With the implementation of Project design features, mitigation measures, and compliance with existing regulations, there will be no cumulatively considerable impacts to sensitive plant species, sensitive plant communities, migratory or nesting birds, jurisdictional features, and protected trees. Furthermore, the project is clustered adjacent to existing development, and due to the expansive open space areas to the west and east of the Project site, the loss of approximately 68 acres (inclusive of fuel modification) of foraging habitat is not expected to substantially affect raptor species to a point where their survival in the region is threatened. These species are relatively mobile and are expected to locate additional foraging habitat remaining in the region.

Of the related 18 projects listed in Section 3.0 Basis for Cumulative Analysis, Table 3-1, only the first 13 related projects contain natural areas within which biological resources comparable to the proposed Project would be present, although some of these areas are currently used for agricultural purposes. Related projects 14 through 18 are located within urban areas and would not contribute to cumulative biological resource impacts. Related projects 1 through 3, 5, and 7 through 8 are components of the Newhall Ranch Specific Plan, which is discussed below as a single large project.

Several large development projects are proposed within region, including the Newhall Ranch Specific Plan, which will permanently convert approximately 5,132 acres of land from a largely natural habitat to suburban/urban development, and dedicate 6,170 acres (51 percent of the total Specific Plan area) in the Santa Clara River Corridor and the Santa Susana Mountains as open space. Although each of the projects mitigate potential project-specific significant impacts (e.g., through habitat replacement programs and regulatory requirements), implementation of large-scale projects, such as the Newhall Ranch Specific Plan or any other similar proposed large-scale project, will result in the permanent conversion of large blocks of



PCR

N

0 400 800 Feet

Impacts to Oak Trees

Aidlin Hills

Source: Microsoft, 2010 (Aerial); PCR Services Corporation, 2015.

FIGURE

4.3-7

This page intentionally blank.

open space areas. Thus, cumulative impacts to wildlife habitat are considered an unavoidable impact. The Aidlin Hills Project contributes less than 2% of the combined acreage of the related projects.

The Valencia Commerce Center development projects could cause potentially significant cumulative impacts to riparian habitat loss, riparian wildlife disturbance, least Bell's vireo temporary and permanent habitat disturbance, and slender and Plummer's mariposa lilies, and San Fernando Valley spineflower impacts. Construction and development of the Entrada North and Entrada South projects could cause potentially significant cumulative impacts to valley oak savannah habitat, slender and Plummer's mariposa lilies, and San Fernando Valley spineflower. The Chiquita Canyon Landfill project would expand the existing landfill footprint and could cause potentially significant cumulative impacts to riparian habitat. The Lyons Canyon project site was recently purchased for open space preservation and would not contribute to cumulative impacts to area.

Cumulative impacts to the biological resources listed below for the Project site are considered to be less than significant based on implementation of the mitigation measures and conditions of approval outlined. Because the Project site was determined not to function as a regional wildlife movement corridor, and no conflicts with approved or adopted habitat conservation plans were determined as significant, these biological impact thresholds are not included below. Because project impacts are less than significant, cumulative impacts are also less than significant because they are not cumulatively considerable.

- Sensitive plant and wildlife species (i.e., sensitive reptiles, San Diego desert woodrat, and roosting bats, if found);
- Sensitive plant communities (i.e., thick-leaved yerba santa scrub, giant wild rye grassland, California bush sunflower scrub, foothill ash; and toyon chaparral);
- Jurisdictional drainages;
- Wildlife movement;
- Nesting and migratory birds; and
- Protected oak trees.

The proposed mitigation measures would result in less-than-significant impacts to these biological resources, and the conditions of approval would ensure compliance with existing regulations (such as regulations for jurisdictional drainages, MBTA, and the County of Los Angeles oak tree ordinance). Therefore, with the proposed mitigation and conditions of approval, impacts would not be considered cumulatively significant. A summary is provided below.

Sensitive Plant Species: The loss of slender and Plummer's mariposa lily individual plants would be potentially significant absent mitigation. Based on a review of the CNDDB, approximately 30,000 slender mariposa lilies occur within 70 occurrences within the region. However, the removal of approximately six slender mariposa lily individuals from the Project site would be mitigated at a ratio of 2:1, yielding a net increase in the regional population, Related projects in the region would also be required to mitigate impacts to sensitive mariposa lily species, as discussed above for the Newhall Ranch Specific Plan, Valencia Commerce Center and the Entrada North and Entrada South projects. Consequently, impacts to sensitive plant species would not be considered cumulatively significant.

Sensitive Wildlife Species: The loss of potential foraging or nesting/roosting habitat for avian species, bats, and other state species of species concern identified in Threshold BIO-1 is not expected to substantially affect these species to a point where their survival in the region is threatened. These species are relatively mobile and are expected to locate additional foraging habitat remaining in the region. The less mobile amphibian, reptile species and mammal would be relocated to open space areas of the Project site. The Project proposes that greater than 70 percent of habitat on-site would remain in open space areas and be available for wildlife use. Impacts to roosting bats would be avoided through Project development footprint staying out of rocky areas, and implementation of pre-construction surveys for bat roosts within trees and avoidance of construction-related impacts, as appropriate. As such, impacts would not be considered cumulatively significant.

Sensitive Plant Communities: Mitigation is proposed at a minimum 2:1 ratio that would compensate for the loss of the sensitive thick-leaved yerba santa scrub, giant wild rye grassland, California bush sunflower scrub, foothill ash, and toyon chaparral plant communities, through on-site restoration or enhancement within the contiguous dedicated open space. With this mitigation measure, there would be no net loss to sensitive plant communities, and any impacts would not be considered cumulatively significant.

Jurisdictional Drainages: Impacts to jurisdictional features would be subject to permitting with the regulatory agencies, including USACE, RWQCB or CDFG. With the proposed mitigation and compliance with existing regulations through the permitting process, there would be no net loss of drainages because permits typically require a minimum of 2:1 mitigation-to impact-ratio, and impacts would not be considered cumulatively significant.

Wildlife movement: Although the Project site is not considered to be a major component of regional wildlife corridor, the Project design would interfere with existing wildlife movement on a local basis and animals currently moving in the area would be required to establish new travel routes. The Project design would consequently change existing local movement patterns; however, impacts would not be cumulatively considerable.

Nesting and Migratory Birds and Bats: Mitigation is proposed to require pre-construction nesting bird and roosting bat surveys in order to avoid disturbance to any active bird nests or bat roosts. With these mitigation measures, there would be no net loss to active bird nests or bat roosts, and any impacts would not be considered cumulatively significant.

Protected Oak Trees: The Project will be required to complete a tree inventory and provide replacement oak trees at a ratio of 2:1, which would result in no net loss of oak trees. Through compliance with the County of Los Angeles ordinance, impacts would not be considered cumulatively significant.

Thus, the Project would not contribute to a significant cumulative impact to biological resources.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With incorporation of Project design features and the implementation of the above mitigation measures, impacts associated with biological resources would be reduced to a less-than-significant level.

4.4 CULTURAL RESOURCES

This section evaluates potential impacts on cultural resources including historic (i.e., built environment), archaeological, and paleontological resources that could occur with implementation of the Project. The analysis of cultural resources presented in this section is derived from a technical report prepared by PCR titled, *Phase I Cultural and Paleontological Resources Assessment for the Proposed Aidlin Property Residential Project (Stevenson Ranch), County of Los Angeles, California* (PCR 2014). This technical report is provided in Appendix D of this EIR.

Built-environment historic resources are buildings, structures, sites, places, or objects which include architectural, engineering, or landscape resources from the historic period such as buildings, roads, wells, bridges, aqueducts, or agricultural properties that are determined to be historically significant or significant in architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, such sites may be considered to be an historical resource, provided the determination is supported by substantial evidence in light of the whole record.

Archaeology is the recovery and study of material evidence of human life and culture of past ages. Over time, this material evidence becomes buried, fragmented, scattered or otherwise hidden from view. It is not always evident from a field survey if archaeological resources exist within a Project site. Thus, the possible presence of archaeological materials must often be determined based upon secondary indicators, including the presence of geographic, vegetative, and rock features which are known or thought to be associated with early human life and culture, as well as knowledge of events or material evidence in the surrounding area. In urban areas such as the Project site and environs, archaeological resources may include both prehistoric remains and remains dating to the historical period. Prehistoric (or Native American) archaeological resources are physical remains resulting from human activities that predate written records and are generally identified as isolated finds or sites. Prehistoric resources can include village sites, temporary camps, lithic (stone tool) scatters, rock art, roasting pits/hearths, milling features, rock features, and burials. Historic archaeological resources can include refuse heaps, bottle dumps, ceramic scatters, privies, foundations, and graves, and are generally associated in California with the Spanish Mission Period to the mid-20th century of the American Period.

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the fossil localities, and the geologic formations containing those localities.

1. ENVIRONMENTAL SETTING

Regulatory Framework

Numerous laws and regulations require federal, State, and local agencies to consider the effects of a project on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended, the California Environmental Quality Act (CEQA), and the California Register of Historical Resources, Public Resources Code (PRC) 5024, are the primary federal and State laws governing and affecting preservation of cultural resources of national, State, regional, and local significance.

State

Historic and Archaeological Resources

California Register of Historical Resources

Created by Assembly Bill 2881, which was signed into law on September 27, 1992, the California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."[1] The criteria for eligibility for the California Register are based upon National Register criteria.[2] Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.[3]

To be eligible for the California Register, a prehistoric or historic property must be significant at the local, state, and/or federal level under one or more of the following 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.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain

[1] *California Public Resources Code Section 5024.1(a).*

[2] *California Public Resources Code Section 5024.1(b).*

[3] *California Public Resources Code Section 5024.1(d).*

sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources (Public Resources Code Sections 21000 et seq.). As defined in Section 21083.2 of the Public Resources Code a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, *State CEQA Guidelines* Section 15064.5 broadens the approach of classifying archaeological resources by using the term "historical resource" instead of "unique archaeological resource." The *State CEQA Guidelines* recognize that certain archaeological resources may also have significance. The *State CEQA Guidelines* recognize that a historical resource includes: (1) a resource in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1 (k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1 (g); or (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of the Public Resources Code and Section 15064.5 of the *State CEQA Guidelines* apply. If an archaeological site does not meet the criteria for a historical resource contained in the *State CEQA Guidelines*, then the site is to be treated in accordance with the provisions of Public Resources Code Section 21083.2, which refer to a unique archaeological resource. The *State CEQA Guidelines* note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. (*State CEQA Guidelines* Section 15064.5(c)(4)).

Assembly Bill 52

Assembly Bill No. 52 (AB52) was signed into law by the Governor on September 25, 2014 and amends CEQA, effective July 1, 2015, such that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. AB52 requires a lead agency to begin consultation with a California Native American tribe that is

traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. This provision is not yet in effect and would not apply to this project because the notice of preparation precedes the effective date of the law. However, consultation with the local Native American tribal representative has occurred and the analysis and conclusions below are consistent with AB52.

Paleontological Resources

Paleontological resources are also afforded protection by environmental legislation set forth under CEQA. Appendix G (part V) of the *State CEQA Guidelines* provides guidance relative to significant impacts on paleontological resources, stating that "a project will normally result in a significant impact on the environment if it will …disrupt or adversely affect a paleontological resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the PRC specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for damage or removal of paleontological resources.

Local Level – Santa Clarita Valley Area Plan

The Santa Clarita Valley Area Plan Update (Plan Update) was adopted in 2012 and includes a Conservation and Open Space Element (Element). The Cultural and Historical Resources section of the Element acknowledges that the Native American Heritage Commission has identified three sites of Native American cultural significance near the Santa Clara River. One of the most important sites mentioned is Bower's Cave near Val Verde, which yielded a significant assemblage of Native American religious and ceremonial artifacts. The Identification of Historical Sites section of the Element also mentions that the Valley's historical heritage sites are listed in the City of Santa Clarita's General Plan and includes dozens of "significant historical properties, sites and landmarks in the planning area," which are also included in the Element. The Historic and Preservation Efforts section also indicates that in 1975 the Santa Clarita Valley Historical Society was formed to identify, preserve and protect historical structures and sites in the Valley (Los Angeles County 2012).

The 1990 Santa Clarita Valley Area Plan contained an Environmental Resources Management Element for the protection and management of natural resources. The Environmental Resources Management Element Policy 1.6 provides for the protection of known archaeological and historical resources, to the extent appropriate.

Existing Conditions

Prehistoric context

Prehistory is most easily discussed chronologically, in terms of environmental change and recognized cultural developments. Several chronologies have been proposed for inland Southern California, the most widely accepted of which is Wallace's four-part Horizon format (1955), which was later updated and revised by Claude Warren (1968). The advantages and weaknesses of Southern California chronological sequences are reviewed by Warren (in Moratto 1984), Chartkoff and Chartkoff (1984), and Heizer (1978). The

following discussion is based on Warren's (1968) sequence, but the time frames have been adjusted to reflect more recent archaeological findings, interpretations, and advances in radiocarbon dating.

Paleo-Indian Period (ca. 13,000-11,000 years before present [YBP])

Little is known of Paleo-Indian peoples in inland southern California, and the cultural history of this period follows that of North America in general. Recent discoveries in the Americas have challenged the theory that the first Americans migrated from Siberia, following a route from the Bering Strait into Canada and the Northwest Coast some time after the Wisconsin Ice Sheet receded (ca. 14,000 YBP), and before the Bering Land Bridge was submerged (ca. 12,000 YBP). Based on new research from the Pacific Rim, it has been proposed that modern humans settled islands of the eastern Pacific between 40,000 and 15,000 years ago. Evidence of coastal migration has also come from sites on islands off Alta and Baja California. As a result, these sites are contemporary with Clovis and Folsom points found in North America's interior regions. All of these new findings have made the coastal migration theory gain credibility in recent times (Erlandson et al. 2007).

The timing, manner, and location of the Bering Strait crossing are a matter of debate among archaeologists, but the initial migration probably occurred as the Laurentide Ice Sheet melted along the Alaskan Coast and interior Yukon. The earliest radiocarbon dates from the Paleo-Indian Period in North America come from the Arlington Springs Woman site on Santa Rosa Island located approximately 100 west miles of the project sites. These human remains date to approximately 13,000 YBP (Johnson, et al. 2002). Other early Paleo-Indian sites include the Monte Verde Creek site in Chile (Meltzer, et al. 1997) and the controversial Meadowcroft Rockshelter in Pennsylvania. Both sites have early levels dated roughly at 12,000 YBP. Lifeways during the Paleo-Indian Period was characterized by highly mobile hunting and gathering. Prey included megafauna such as mammoth and technology included a distinctive flaked stone toolkit that has been identified across much of North America and into Central America. They likely used some plant foods, but the Paleo-Indian toolkit recovered archaeologically does not include many tools that can be identified as designed specifically for plant processing.

The megafauna that appear to have been the focus of Paleo-Indian life went extinct during a warming trend that began approximately 10,000 years ago, and both the extinction and climatic change (which included warmer temperatures in desert valleys and reduced precipitation in mountain areas) were factors in widespread cultural change. Subsistence and social practices continued to be organized around hunting and gathering, but the resource base was expanded to include a wider range of plant and game resources. Technological traditions also became more localized and included tools specifically for the processing of plants and other materials. This constellation of characteristics has been given the name "Archaic" and it was the most enduring of cultural adaptations to the North American environment.

Archaic Period (ca. 11,000-3,500 YBP)

The earliest Archaic Period life in inland southern California has been given the name San Dieguito tradition, after the San Diego area where it was first identified and studied (Warren 1968). Characteristic artifacts include stemmed projectile points, crescents and leaf-shaped knives, which suggest a continued subsistence, focus on large game, although not megafauna of the earlier Paleo-Indian period. Milling equipment appears in the archaeological record at approximately 7,500 years ago (Moratto 1984:158). Artifact assemblages with this equipment include basin milling stones and unshaped manos, projectile points, flexed burials under cairns, and cogged stones, and have been given the name La Jolla Complex (7,500–3,000 YBP). The transition

from San Dieguito life to La Jolla life appears to have been an adaptation to drying of the climate after 8,000 YBP, which may have stimulated movements of desert peoples to the coastal regions, bringing milling stone technology with them. Groups in the coastal regions focused on mollusks, while inland groups relied on wild-seed gathering and acorn collecting.

Late Prehistoric Period (ca. 3,500 YBP-A.D. 1769)

Cultural responses to environmental changes around 4,000–3,000 YBP included a shift to more land-based gathering practices. This period was characterized by the increasing importance of acorn processing, which supplemented the resources from hunting and gathering. Meighan (1954) identified the period after A.D. 1400 as the San Luis Rey complex. San Luis Rey I (A.D. 1400–1750) is associated with bedrock mortars and milling stones, cremations, small triangular projectile points with concave bases and Olivella beads. The San Luis Rey II (A.D. 1750–1850) period is marked by the addition of pottery, red and black pictographs, cremation urns, steatite arrow straighteners and non-aboriginal materials (Meighan 1954:223, Keller and McCarthy 1989:6). Work at Cole Canyon and other sites in southern California suggests that this complex, and the ethnographically described life of the native people of the region, were well established by at least 1,000 YBP (Keller and McCarthy 1989:80).

Ethnographic Context – The Tataviam

The Project site is known to have been inhabited by the Native American group ethnographically known as the Tataviam. This Native American group is known to have lived mainly on the upper reaches of the Santa Clara River drainage east of Piru Creek. Although it is also known that their territory reached the Sawmill Mountains to the north. The Tataviam were surrounded by various Chumash groups to the west and to the south by various Gabrielino-speaking groups.

The Tataviam relied primarily on vegetable foods such as the buds of *Yucca whipplei*, acorns, juniper berries, sage seeds, and islay berries. Animal foods consisted of small mammals, deer, and antelope. Information recovered from Bowers's Cave located between Piru and Newhall suggests that there are major similarities among the Tataviam, Chumash and Gabrielino ritual organization. Ritual paraphernalia similar to that described by the Ventureño Chumash used by secret society members in the performance of ceremonies was found at Bowers's Cave. In addition, the Tataviam also appeared to have held their annual mourning ceremony in the late summer or early fall, just as did their southern neighbors. During historic times and by 1810, all the Tataviam had been baptized at the San Fernando Mission. By 1834, the descendants of the Tataviam had married into other groups at the mission or in the Tejon Region. By 1916, the last speaker of Tataviam language had passed away (King and Blackburn 1978). The anthropologist A. L. Kroeber explained that the villages or bands "were de facto self-governing, and it was they that each owned a particular territory, rather than that the nationality owned the overall territory. Ordinarily, the nationality, miscalled tribe, was only an aggregate of miniature sovereign states normally friendly to one another" (Kroeber 1955:303). According to Kimia Fatehi, representative for the Tataviam Tribe, "these tribelets contained 250 to 300 people, with lineages having approximately 100 people. Through the San Fernando Mission registers [which are not open to the public], lineages from prehistoric tribelets can be traced to currently enrolled Tataviam tribal members today" (K. Fatehi, personal communication, 2015).

European Contact

European exploration of the inland southern California began in the 1770s with expeditions of Captain Pedro Fages and Juan Bautista de Anza. Anza's journals are the first documented record of the area. The Spanish did not establish any missions in the Project vicinity and so the effects of the mission system on the native inhabitants of the area were somewhat delayed until the early 1800s. The missions with the greatest influence on the Project area were Mission San Gabriel, which is located 43 miles southeast from the Project site. Spanish soldiers and missionaries likely traveled through the area on their way to visit various missions and outposts in the vicinity. In the beginning of the nineteenth century, some Spaniards who had worked at the missions began to set up what would later be known as the "Ranchos." The Rancho era in California history was the period when the entire state was divided into large parcels of land equaling thousands of acres apiece. These large estates were ruled over in a semi-feudal manner by men who had been deeded the land by the first the Spanish crown, and later the Mexican government. In 1821, Mexico won independence from Spain and began to dismantle the mission system in California. As the missions began to secularize, they were transformed into small towns. It was during this time that "Americans" began to enter California. Many of the American Californians married into the Rancho families, a development that would transform land ownership in Mexican California. By the time the United States annexed California after the Mexican-American War, much of the Rancho lands were already in the hands of Americans. Multiple epidemics took a great toll on Native American populations between approximately 1800 and the early 1860s (Porretta 1983), along with the cultural and political upheavals that came with European, Mexican, and American settlement (Goldberg 2001:50-52).

Resources Identified within the Project Site

Historic and Archaeological Resources

Methods

On March 4, 2014, PCR archaeologists conducted a cultural resource records search at the CRHIS-SCCIC at California State University, Fullerton. This records search included a review of all recorded archaeological resources within a one-half mile radius of the Project site as well as a review of cultural resource reports and historic topographic maps on file. In addition, PCR reviewed the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the California Register, the National Register, and the California State Historic Resources Inventory (HRI) listings. The purpose of the record search is to determine whether or not there are previously recorded archaeological resources within the Project site and surrounding vicinity that require evaluation and treatment. The results also provide a basis for assessing the sensitivity of the Project site for additional and buried archaeological resources.

On March 4, 2014, PCR archaeologists commissioned a SLF records search by the NAHC and conducted follow-up consultation with Native American groups and/or individuals (on April 1, 2014) identified by the NAHC as having affiliation with the Project site vicinity. Each Native American group and/or individual listed was sent a Project notification letter and map, and was asked to convey any knowledge regarding Native American cultural resources (archaeological sites, sacred lands, or artifacts) located within the Project site or surrounding vicinity. The letter included information such as Project location and a brief description of the proposed Project. On April 3 and 4, 2014, PCR archaeologists conducted a cultural resources pedestrian survey of the Project site. The pedestrian survey consisted of an intensive investigation of flat areas, ridge lines, canyons, and drainages. Due to the steep slopes and densely vegetated areas that inhibited access and obstructed ground surface visibility, some areas of the Project site were not

surveyed. Where possible, PCR surveyed the Project site in transect intervals spaced at 10 to 15 meters apart. These transect intervals were reduced in most areas, given the steep topography, dense vegetation and limited space along the ridge lines and drainages.

Results

The records search from the CHRIS-SCCIC indicates that a total of 11 cultural resource studies have been conducted within the one-half mile radius of the Project site. Of these 11 studies, only three (Peak and Associates 1992; Maxon 1999; and McKenna 2005) have ever encompassed the Project site. The study by Peak and Associates (1992) only covered a small portion of the Project site, consisted of a cultural resources assessment for the proposed Pacific Pipeline oil transportation project and yielded the identification of one prehistoric resource within the one-half mile radius of the Project site. The study by Maxon (1999) consisted of a cultural resources reconnaissance and yielded the identification of the Larinan Apiary and a riveted iron standpipe identified as an exploratory oil well, which was never exploited, within the Project site. The Larinan Apiary is described as being constructed in 1918 and consisting of a house with a storage shed, a garage, a chicken coop, a plank bridge, a honey house, a corral, and a well head. The study by McKenna (2005) previously encompassed the entire Project site and yielded negative results for prehistoric archaeological resources. No evidence of the Larinan Apiary complex was found and the author mentioned that the structures had been removed prior to the survey (McKenna 2005). The records search also revealed the existence of one prehistoric archaeological site (CA-LAN-1020) and one California Registered Historical Landmark (19-186568) within the one-half mile radius of the Project site. None of these resources are located near or within close proximity to the Project site, and therefore would not be impacted by the Project.

Pursuant to NAHC suggested procedure, follow-up letters were sent via certified mail on April 1, 2014, to the nine Native American individuals and organizations identified by the NAHC as being affiliated with the vicinity of the Project site. On April 8, 2014, PCR received a phone call from Freddie Romero from the Santa Ynez Tribal Elders Council. Mr. Romero mentioned that he defers any comments regarding the Project to the other tribes in the area. On April 12, 2014, PCR received a letter from the Fernandeño Tataviam Band of Mission Indians indicating that the Project site has been identified as breaking ground into traditional Tataviam tribal lands. On April 21, 2014, PCR contacted Kimia Fatehi, representative for the Tataviam Band. Ms. Fatehi indicated that the Project site overlaps with the culturally sensitive site of Tochonanga and because of this reason, the tribe requests tribal monitors to ensure that cultural artifacts are not overlooked.

PCR surveyed approximately 20 percent of the Project site due to the constraints posed by steep slopes and dense vegetation within the Project site, which made surveying in these areas not feasible. Where feasible, PCR surveyed flat areas, ridge lines, canyons, and areas adjacent to drainages. Ground surface visibility for most of the Project site ranged from zero to 30 percent. Ground surface visibility for the dirt roads within the Project site was between 50 to 100 percent, which is equivalent to less than five percent of surface area within the Project site. The limited ground surface visibility for most of the Project site is a result of very dense and tall vegetation. During the pedestrian survey, PCR conducted a close-interval survey (i.e., less than 5-meter transects between surveyors) of the areas where the structures associated with the Larinan Apiary once existed. No prehistoric archaeological or paleontological resources were identified during PCR's pedestrian survey of the Project site. However, one built-environment resource (19-101199) and a historic archaeological resource (19-101200) were identified along the northeast portion of the Project site.

19-101199

This built-environment resource consists of a brick-lined well plastered with cement that was identified near the intersection of the two dirt access roads in the Project site. The well is approximately four feet in diameter and approximately 12 feet deep. Modern refuse, metals, wood, bottles, and rocks were observed inside the well, and a metal pipe protrudes from the ground immediately adjacent to the well. The well is also located in close proximity to the previously recorded honey house which forms part of the Larinan Apiary (as described in the cultural resources records search section, above) identified by Maxon (1999) and recorded by Gregory (1999). However, the well is not described in the Department of Parks and Recreation (DPR) Site Form for the Larinan Apiary. Since it appears that the well is associated with the Larinan Apiary given its proximity to the former complex, the well is likely over 45 years of age.

19-101200

The remnants of concrete foundation reinforced with metal rebar were identified approximately 160 feet south of the intersection of the two dirt roads and within close proximity to the second entrance gate in the Project site. The foundation debris appears to have been dumped on top of large boulders which form part of a drainage located nearby and are compacted with dirt. It is possible that the foundation debris is related to the honey house or corral that once existed nearby for the Larinan Apiary.

Evaluation of Resources within the Project site

Although resource 19-101199 was never recorded as being part of the former Larinan Apiary structures, the honey house is located in close proximity to the well, and there are no other structures in the Project site that the well could be associated with. The well is in good condition and retains integrity of structure but it does not appear to be made in a distinctive style or form as it appears to be consistent with rural wells in the region. Moreover, the well is not associated with events that have made a significant contribution to the broad patterns of California's history; is not associated with the lives of persons important in our past; does not embody characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, and is not likely to yield information important in history. As a result, the resource is not eligible for the California Register nor does it qualify as a unique archaeological resource and therefore is not a historical resource under CEQA and impacts to the well are not considered a significant impact on the environment.

Although it is possible that 19-101200 is associated with the honey house or corral of the former Larinan Apiary, the debris has been displaced from its original location, does not retain integrity, and does not meet any of the four eligibility criteria. As a result, the resource is not eligible for the California Register nor does it qualify as a unique archaeological resource and therefore is not a historical resource under CEQA and impacts to the resource are not considered a significant impact on the environment.

Paleontological Resources

Methods

On March 4, 2014, PCR commissioned a paleontological resources records search through the Natural History Museum of Los Angeles County (NHMLAC). This records search entailed an examination of current geologic maps and known fossil localities inside and within the general vicinity of the Project site. Results of the record search indicate whether or not there are previously recorded paleontological resources or

fossiliferous geological formations within the Project site. The results also provide a basis for assessing the sensitivity of the Project site for additional and buried paleontological resources. A paleontological survey was conducted on April 7, 2014 and consisted of walking along the road and ridgelines.

Results

Results of the paleontological resources records search revealed that the majority of the Project site has exposures of the marine Pliocene Pico Formation. The closest fossil locality from the Pico Formation is a generalized locality (LACM 6365) possibly located within the northern portion of the Project site, which produced the skull of an undetermined sea lion. The next closest localities are LACM 1931 and 3494 located approximately eight miles southwest between Las Llajas Canyon and Chivo Canyon that produced fossil specimens of bonito shark, white shark, and right whale. The next closest fossil locality is LACM 5456 located approximately 22 miles south of the Project site in Brown Canyon, which produced a skull of a sea lion. The very southwestern portion of the Project site has exposures of the marine latest Miocene to Pliocene Towsley Formation. The closest vertebrate fossil locality from the Towsley Formation (LACM 7421) is located approximately 7.5 miles southeast of the Project site, and it produced a fossil of a primitive baleen whale. The next closest locality from the Towsley Formation is LACM (CIT) 441, approximately six miles northeast, which produced fossil specimens of the dugong.

Surface deposits of younger Quaternary Alluvium exist within the Pico and Wickham Canyon drainages within the Project site. These younger Quaternary Alluvium deposits are not known to contain significant vertebrate fossils in the uppermost layers, and no localities with such deposits exist nearby. However, older deposits may well contain significant fossil remains at depth. The closest vertebrate fossil locality from older Quaternary deposits (LACM 7594) is located approximately eight miles southwest of the Project site in Simi Valley, which produced a mastodon specimen. Shallow excavations in the younger Quaternary Alluvium in the Pico Canyon and Wickham Canyon drainages are unlikely to yield significant vertebrate fossils. However, deeper excavations in the drainages extending down into older sedimentary deposits, or any excavations in the Pico Formation or Towsley Formation within the Project site may uncover significant fossil specimens (McLeod 2014).

During the paleontological survey, no surficial paleontological resources were documented. Due to extensive vegetative cover and rugged terrain with steep slopes, not all areas of the Project were able to be surveyed; however, several outcrops of the Pico Formation and alluvial sediments were documented on ridgelines and canyon bottoms, where they were unobscured by vegetation and modern soil development. A resistant fine-to-coarse-grained outcrop of Pico Formation sandstone was noted on a ridgeline west of Wickham Canyon. Fine-grained, weathered silty-shales with scattered gypsum were documented on a west-southwest striking ridge along the southern boundary of the Project site. Alluvial sediments were present along the road at the bottom of Wickham Canyon. These sediments consisted of a mixture of cobbles, gravels, and coarse sands in a finer-grained matrix and were moderately cemented

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provide thresholds of significance to determine whether a project would have a significant environmental

impact regarding cultural resources. Based on the size and scope of the Project and the potential for cultural resources impacts, the thresholds below are included for evaluation in this EIR.

Would the Project:

Historic and Archaeological Resources

Threshold CULT-1: Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines? (refer to Impact Statement 4.4-1);

Threshold CULT-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines? (refer to Impact Statement 4.4-2);

Threshold CULT-3: Disturb any human remains, including those interred outside of formal cemeteries? (refer to Impact Statement 4.4-3); and

Paleontological Resources

Threshold CULT-4: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (refer to Impact Statement 4.4-4).

Methodology

Historic and Archaeological Resources

As described above, PCR conducted a cultural resources records search and a pedestrian survey to identify historic and archaeological resources within the Project site. In order to determine whether the identified resources qualify as archaeological resources pursuant to Section 15064.5 of the *State CEQA Guidelines*, PCR conducted an eligibility evaluation of the resources (19-101199 and 19-101200) identified within the Project site. As a result of the evaluation effort, the resources identified are recommended as ineligible for listing in the California Register and do not qualify as "unique archaeological resource" pursuant to CEQA. Therefore, impacts to these resources are not considered a significant impact on the environment and no further analysis is warranted for the resources. These findings, however, do not preclude the existence of undiscovered and buried archaeological resources located below the ground surface and lacking surface manifestation.

It is possible that previously unknown archaeological resources exist at depth within the Project site. PCR reviewed the existing conditions within the Project site and the results of the cultural resources records search and survey in order to assess the potential for the Project site to contain buried archaeological resources.

Paleontological Resources

To develop a baseline paleontological resources inventory of the Project site and surrounding area and to assess the potential paleontological productivity of each stratigraphic unit present, the published and available unpublished geological and paleontological literature was reviewed, as described above, and

stratigraphic and paleontological inventories were compiled, synthesized, and evaluated by the staff of the NHMLAC. These methods are consistent with the Society of Vertebrate Paleontology (SVP) guidelines for assessing the importance of paleontological resources in areas of potential environmental effect. PCR also conducted a pedestrian survey to identify known resources and/or fossiliferous geological formations within the Project site. Since no known paleontological resources were identified on the surface within the Project site, the research described above was conducted in order to assess the potential for the Project site to contain buried paleontological resources.

Project Design Features

As discussed earlier, the two resources (19-101199 and 19-101200) identified on the surface of the Project site do not qualify as historical or archaeological resources pursuant to *State CEQA Guidelines* Section 15064.5. However, it is possible that previously unknown archaeological and paleontological resources exist at depth within the Project site. Therefore, the focus of this evaluation is on construction activities that have the potential to encounter buried archaeological and paleontological resources. It is anticipated that construction excavations will occur in the northeastern portion of the Project site and adjacent to Pico Canyon Road for the development of 102 single-family residences. However, there are no project design features specific to the protection of historical, archaeological or paleontological resources, should such resources become discovered during construction activities.

Analysis of Project Impacts

Historic and Archaeological Resources

Threshold CULT-1 Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines?

Impact Statement 4.4-1: Implementation of the Project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines. This impact is considered less than significant.

As discussed earlier, the Larinan Apiary and related structures once existed within the boundaries of the Project site. However, these structures were removed by at least 2005, if not earlier, as McKenna (2005) did not encounter these structures during their pedestrian survey. Since the Larinan Apiary no longer exists, no impacts would result to any above-ground elements of the resource from the Proposed Project excavations.

The pedestrian survey conducted by PCR revealed the existence of one built-environment resource (19-101199) along the northeast portion of the Project site. However, since the resource is not considered a historical resource under CEQA, impacts to 19-101199 are not considered a significant impact on the environment and therefore no impact analysis or mitigation is warranted. As a result, the Project will not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the *State CEQA Guidelines*.

Threshold CULT-2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines?

Impact Statement 4.4-2: *Implementation of the Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines. However, implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.*

As discussed earlier, one historic archaeological resource (19-101200) was identified within the Project site during the survey. However, since the resource is not considered a historical resource under CEQA, impacts to 19-101200 are not considered a significant impact on the environment and therefore no impacts analysis or mitigation is warranted. These findings, however, do not preclude the existence of undiscovered and buried archaeological resources located below the ground surface and lacking surface manifestation. Although no standing structures related to the Larinan Apiary as recorded on its DPR Site Form are currently present within the Project site, it is possible the buried historical archaeological deposits associated with these structures could be encountered during construction excavations associated with the Project. Therefore, impacts on undiscovered and buried archaeological resources could be considered potentially significant. As a result, recommended mitigation measures are provided to reduce potentially significant impacts to previously undiscovered archaeological resources that may be encountered during Project implementation to a less than significant level.

Mitigation Measures

Mitigation Measure 4.4-1 The Permittee shall retain a qualified archaeological monitor who shall be present during construction excavations (e.g., grading, trenching, or clearing/grubbing) in areas where the Larinan Apiary structures once existed in the northern portion of the Project site. Other areas outside the boundaries of the Larinan Apiary structures shall not be monitored. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring may be reduced to part-time inspections if determined adequate by the archaeological monitor.

Mitigation Measure 4.4-2 In the event that archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be evaluated by a qualified archaeologist. The Permittee shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. Treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. The Permittee, in consultation with the archaeologist, shall designate repositories in the event that archaeological material is recovered.

Mitigation Measure 4.4-3 The archaeological monitor shall prepare a final report at the conclusion of archaeological monitoring. The report shall be submitted by the Permittee to the County, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures. The report shall include a description of resources

unearthed, if any, treatment of the resources, and evaluation of the resources with respect to the California Register of Historical Resources.

Mitigation Measure 4.4-4 The Permittee shall retain a Native American tribal monitor from the Fernandeño Tataviam group who shall be present during construction excavations (e.g., grading, trenching, or clearing/grubbing) associated with the proposed Project. The frequency of monitoring shall be determined by the tribal monitor, who shall take into account the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of prehistoric archaeological resources encountered. Full-time tribal monitoring may be reduced to part-time inspections if determined adequate by the Native American monitor. If prehistoric archaeological resources are encountered during construction, the Native American monitor shall advise the Permittee and archaeologist regarding the treatment and curation of the resources as described in Mitigation Measure 4.4-2. As discussed Mitigation Measure 4.4-2, the archaeological monitor shall have the authority to halt or divert ground-disturbing activities away from the vicinity of the find so that it can be evaluated and a subsequent treatment plan be prepared and implemented. The tribal monitor shall advise the archaeological monitor regarding decisions to halt or divert work from the vicinity of a find.

Threshold CULT-3 Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact Statement 4.4-3: Implementation of the Project could disturb human remains, including those interred outside of formal cemeteries. However, implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.

No known human remains have been identified from the CHRIS-SCCIC records within the Project site or within a half-mile radius, and none were observed during PCR's pedestrian survey. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface that may be encountered during construction excavations associated with the Project. As a result, recommended mitigation measures are provided that would reduce potentially significant impacts to previously unknown human remains that may be discovered during Project implementation to a less than significant level.

Mitigation Measures

Mitigation Measure 4.4- 5 If human remains are unearthed during implementation of the Project, the Permittee shall comply with State Health and Safety Code Section 7050.5. The Permittee shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the landowner, inspect the site of the discovery of the Native American remains and may recommend to the landowner means for treating or disposing, with appropriate dignity, the human remains and any associated funerary objects. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the

landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and cultural items associated with Native American burials. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment. If reburial is recommended, the MLD shall file a record of the reburial with the NAHC and the Project archaeologist shall file a record of the reburial with the CHRIS-SCIC.

If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance. A record of the reburial shall be filed with the NAHC and the CHRIS-SCCIC.

Paleontological Resources

Threshold CULT-4 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact Statement 4.4-4: Implementation of the Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. However, implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.

Results of the paleontological resources records search revealed that the majority of the Project site has exposures of the fossiliferous marine Pliocene Pico Formation, which has produced fossil specimens (sea lion, bonito shark, white shark, and whale) from similar deposits in close proximity to the Project site. During the pedestrian survey, several outcrops of the Pico Formation and alluvial sediments were documented on ridgelines and canyon bottoms where they were unobscured by vegetation and modern soil development. The most southwestern portion of the Project site has exposures of the fossiliferous marine latest Miocene-to-Pliocene Towsley Formation which has also produced fossil specimens (baleen whale, dugong) from similar deposits in close proximity to the Project site. Surface deposits of younger Quaternary Alluvium that exist within the Pico and Wickham Canyon drainages on the Project site are not known to contain significant vertebrate fossils in the uppermost layers, and no localities with such deposits exist nearby. However, older Quaternary deposits may well contain significant fossil remains at depth, as these deposits have produced a fossil mastodon nearby.

As a result of these findings, shallow excavations in the younger Quaternary Alluvium in the Pico Canyon and Wickham Canyon drainages are unlikely to yield significant vertebrate fossils. However, deeper excavations in the drainages extending down into older sedimentary deposits (i.e., older Quaternary alluvium), or any

excavations in the Pico Formation or Towsley Formation within the Project site have the potential to encounter paleontological resources. As a result, recommended mitigation measures are provided to reduce potentially significant impacts to previously undiscovered paleontological resources that may be encountered during Project implementation to a less than significant level.

Mitigation Measures

Mitigation Measure 4.4-6 A qualified Paleontologist shall be retained to develop and implement a paleontological monitoring program for construction excavations that would encounter older Quaternary alluvium or deposits associated with Pico Formation or Towsley Formation. The Paleontologist shall attend a pre-grading/excavation meeting to discuss a paleontological monitoring program. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. The qualified Paleontologist shall supervise a paleontological monitor who shall be present at such times as required by the Paleontologist during construction excavations into older Quaternary alluvium, or deposits associated with Pico Formation or Towsley Formation. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. The frequency of monitoring inspections shall be determined by the Paleontologist and shall be based on the rate of excavation and grading activities, the materials being excavated, and the depth of excavation, and if found, the abundance and type of fossils encountered.

Mitigation Measure 4.4-7 If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the Paleontologist's discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.

Mitigation Measure 4.4-8 The paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Permittee to the lead agency and the Natural History Museum of Los Angeles County, and other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (CULT-1 through CULT-4) analyzed in this EIR section?

Impact Statement 4.4-5: The Project combined with the related projects would not result in substantial adverse effects related to cultural resources in the Project area. Cumulative cultural resource impacts would be less than significant and not cumulatively considerable.

Cumulative impacts associated with archaeological resources would be less than significant, since the Project is required to comply with the mitigation measures and regulations cited above in the event resources are found. These regulations include Public Resources Code Section 21083.2 or Public Resources Code Section 21084.1 and *State CEQA Guidelines* Section 15064.5. Furthermore, impacts on archaeological resources associated with the Project are considered less than significant with implementation of applicable mitigation measures typically employed for development on potentially sensitive sites. Depending on the sensitivity of the related project sites, mitigation measures would likely be required for discretionary projects that have the potential to cause significant impacts to undiscovered resources. In regards to sensitivity, the related activities are located in urbanized areas where the potential to encounter and have a significant impact on surface resources is unlikely. Furthermore, for those activities that may have potential for significant impacts, there is a reasonable expectation that that if resources are encountered during construction, there would be proper mitigation measures. Therefore, cumulative impacts on archaeological resources from related activities are expected to be less than significant, and the proposed Project's contribution to such impacts, in light of proposed mitigation measures, would not be cumulatively considerable.

In addition, with regard to paleontological resources, it is likely that many of the related activities, particularly those with potential for substantial excavation, would be subject to environmental review and employ similar mitigation measures to those proposed for the Project. With implementation of mitigation measures by related activities and the Project, cumulative impacts on paleontological resources would be less than significant, and the Project's contribution to such impacts would not be cumulatively considerable.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Historic and Archaeological Resources

Based on the foregoing, with implementation of the mitigation measures above, the Project would not:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; or,
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or,
- Disturb any human remains, including those interred outside of formal cemeteries.

Thus, with implementation of the mitigation measures above, the Project would provide for appropriate treatment and/or preservation of resources if encountered. Therefore, potentially significant impacts to archaeological resources and human remains, including those interred outside of formal cemeteries, would be reduced to a less than significant level.

Paleontological Resources

Based on the foregoing, with implementation of the mitigation measures above, which provide for avoidance and recovery of resources if encountered, the Project would not directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature.

Thus, with implementation of the mitigation measures above, potentially significant impacts to paleontological resources would be reduced to a less than significant level.

4.5 GEOLOGY AND SOILS

This section describes relevant regulations and existing conditions associated with geology and soils and analyzes the potential impacts of the Project regarding fault rupture, seismic hazards, ground shaking, liquefaction and lateral spreading, subsidence, landslides, soil erosion or the loss of topsoil, and expansive soils in Los Angeles County (County) and in the vicinity of the Project site. Information in this section is largely based on information and findings obtained in the *Geologic/Geotechnical Evaluation for Environmental Impact Report Vesting Tentative Tract Map No. 52796, Los Angeles County, California* (herein referred to as the "Geotechnical Evaluation"), prepared by R.T. Frankian & Associates, dated April 3, 2014 and the *100-Scale Plan Review Vesting Tentative Tract Map No. 52796, Los Angeles County, California* (herein referred to as the "100-Scale Plan Review"), prepared by R.T. Frankian & Associates, dated March 27, 2014. R.T. Frankian & Associates has responded to the County's review/comments of these reports (responses dated July 24, 2014, November 12, 2014, and February 2, 2015). These responses to the County's comments are reflected within the analysis below. The Geotechnical Evaluation, 100-Scale Plan Review, and response to comments are included in Appendix E of this EIR.

1. ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1977 to "reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program." To accomplish this, the Act also established the National Earthquake Hazards Reduction Program (NEHRP) in 1977. The program was significantly amended in November 1990 by the National Earthquake Hazards Reduction Program Reauthorization Act, which refined the description of agency responsibilities, program goals, and objectives. The NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigation and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, reporting, and coordinating responsibilities. Programs under NEHRP inform and guide planning and building code requirements, including as emergency evacuation responsibilities and seismic code standards, such as those to which the Project would be required to adhere.

Federal Soil Protection Act

The purpose of the Federal Soil Protection Act is to protect or restore the functions of the soil on a permanent sustainable basis. Protection and restoration activities include prevention of harmful soil changes, rehabilitation of the soil of contaminated sites and of water contaminated by such sites, and precautions against negative soil impacts. If impacts are made on the soil, disruptions of its natural functions and of its function as an archive of natural and cultural history should be avoided, as far as practicable. In

addition, the requirements of the Federal Water Pollution Control Act, also referred to as the Clean Water Act (CWA) through the National Pollution Discharge Elimination System (NPDES) permit provide guidance for protection of geologic and soil resources.

International Building Code

The International Building Code (IBC), provided by the International Code Council (ICC), is the national model building code providing standardized requirements for construction. The IBC replaced earlier regional building codes, including the Uniform Building Code (UBC), in 2000, and established consistent construction guidelines for the nation. The 2012 IBC, which is the most recent edition of the IBC, was incorporated into the 2013 California Building Code that currently applies to all structures being constructed in California. The national model codes are therefore incorporated by reference into the building codes of local municipalities, such as the California Building Code discussed below. The California Building Code includes building design and construction criteria that take into consideration the State's seismic conditions.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621) was enacted by the State of California in 1972 to address the hazard of surface faulting to structures for human occupancy.[1] The Alquist-Priolo Earthquake Fault Zoning Act was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged homes, commercial buildings, and other structures. The primary purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent the construction of buildings intended for human occupancy on the surface traces of active faults. The Alquist-Priolo Earthquake Fault Zoning Act is also intended to provide the citizens with increased safety and to minimize the loss of life during and immediately following earthquakes by facilitating seismic retrofitting to strengthen buildings against ground shaking. The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to establish regulatory zones, known as "earthquake fault zones", around the surface traces of active faults and to issue appropriate maps to assist cities and counties in planning, zoning, and building regulation functions. Maps are distributed to all affected cities and counties for the controlling of new or renewed construction and are required to sufficiently define potential surface rupture or fault creep. The State Geologist is charged with continually reviewing new geologic and seismic data, and revising existing zones and delineating additional earthquake fault zones when warranted by new information. Local agencies must enforce the Alquist-Priolo Earthquake Fault Zoning Act in the development permit process, where applicable, and may be more restrictive than State law requires. According to the Alquist-Priolo Earthquake Fault Zoning Act, before a project that is within an earthquake fault zone can be permitted, cities and counties shall require a geologic investigation, prepared by a licensed geologist, to demonstrate that buildings would not be constructed across active faults. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back. Furthermore, unless proven otherwise by an appropriate geologic investigation and report, the area within 50 feet of an active fault is presumed to be underlain by active branches of that fault. The Alquist-Priolo Earthquake Fault Zoning Act and its regulations are presented in California Department of Conservation, California Geological Survey (CGS), Special Publications (SP) 42, Fault-rupture Hazard Zones in California. The CGS was formerly known as the California Division of Mines and Geology (CDMG).

[1] *The Act was originally entitled the Alquist-Priolo Geologic Hazards Zone Act.*

Seismic Hazards Mapping Act

In order to address the effects of strong ground shaking, liquefaction, landslides, and other ground failures due to seismic events, the State of California passed the Seismic Hazards Mapping Act of 1990 (Public Resources Code Section 2690-2699). Under the Seismic Hazards Mapping Act, the State Geologist is required to delineate "seismic hazard zones." Cities and counties must regulate certain development projects within these zones until the geologic and soil conditions of the project site are investigated and appropriate mitigation measures, if any, are incorporated into development plans. The State Mining and Geology Board provides additional regulations and policies to assist municipalities in preparing the Safety Element of their General Plans and to encourage land use management policies and regulations to reduce and mitigate those hazards. Under Public Resources Code Section 2697, cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard. Each city or county shall submit one copy of each geotechnical report, including mitigation measures, to the State Geologist within 30 days of its approval. Under Public Resources Code Section 2698, nothing is intended to prevent cities and counties from establishing policies and criteria which are stricter than those established by the Mining and Geology Board.

State publications supporting the requirements of the Seismic Hazards Mapping Act include the CGS SP 117, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, and SP 118, *Recommended Criteria for Delineating Seismic Hazard Zones in California*. The objectives of SP 117 are to assist in the evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations and to promote uniform and effective statewide implementation of the evaluation and mitigation elements of the Seismic Hazards Mapping Act. SP 118 implements the requirements of the Seismic Hazards Mapping Act in the production of Probabilistic Seismic Hazard Maps for the State.

California Building Code

The California Building Code (also known as the "California Building Standards Code") is promulgated under the California Code of Regulations (CCR) (Title 24, Part 2 of 12, Volume 1 and 2) and is administered by the California Building Standards Commission (CBSC). The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by State agencies and local governing bodies. The CBSC published the 2013 edition in July 2013, which incorporated the 2012 IBC and became effective January 1, 2014. The California Building Code may be adopted entirely or with revisions by State and local municipalities. The County adopted entirely and incorporated the 2013 California Building Code into the Los Angeles County, California, Code or Ordinances, as Title 26, Building Code.

Title 26, as adopted by the County, provides minimum standards to preserve the public health, safety, and general welfare by regulating the design, construction, installation, quality of materials, use, occupancy, location, and maintenance of all buildings, structures, grading, and certain equipment. The California Building Code provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Chapter 18, Soils and Foundations, of the California Building Code specifies the level of soil investigation that is required by law in California. Requirements in Chapter 18 apply to building and foundations systems and consider reduction of potential seismic hazards.

Local

Los Angeles County Draft General Plan 2035 (2014)

Chapter 12, Safety Element

The purpose of the Safety Element is to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards. The California Government Code requires the General Plan to address "the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards; flooding; and wildland and urban fires." The Safety Element addresses only limited aspects of man-made disaster, such as hazardous waste and materials management, in particular those aspects related to seismic events, fires, and floods. The Safety Element works in conjunction with the All-Hazard Mitigation Plan prepared by the Chief Executive Office-Office of Emergency Management (CEO OEM), which sets strategies for natural and man-made hazards in the County. The All-Hazard Mitigation Plan, which has been approved by FEMA and the California Emergency Management Agency (CalEMA), includes a compilation of known and projected hazards in the County. The All-Hazard Mitigation Plan also includes information on historical disasters in the County.

Los Angeles County Code of Ordinances

The Los Angeles County Code of Ordinances regulates grading, fill, and excavation, as well as safety requirements within Title 26 (Building Code). Chapter 16, Structural Design, Section 1613, Earthquake Loads, establishes minimum regulations for the design and construction of new buildings and additions to existing buildings when such buildings or additions are to be located on slopes steeper than one unit vertical in three units horizontal (33.3 percent grade). These regulations establish minimum standards for seismic force resistance to reduce the risk of injury or loss of life in the event of earthquakes. Appendix J, Grading, provides regulations and standards for grading, excavation, and earthwork construction, including fills and embankments and the control of storm water runoff from graded sites, including erosion sediments and construction-related pollutants. Title 12, Environmental Protection, Chapter 12.80, Stormwater and Runoff Pollution Control, protects the health and safety of the residents of the County by protecting the beneficial uses, marine habitats, and ecosystems of receiving waters within the County from pollutants carried by stormwater and nonstormwater discharges. Chapter 12.84, Low Impact Development ("LID") Standards, lessens the adverse impacts of stormwater runoff from development and urban runoff on natural drainage systems, receiving waters and other water bodies. The section minimizes pollutant loadings from impervious surfaces by requiring development projects to incorporate properly designed, technically appropriate Best Management Practices ("BMPs") and other LID strategies. The section intends to minimize erosion and other hydrologic impacts on natural drainage systems by requiring development projects to incorporate properly designed, technically appropriate hydromodification control development principles and technologies.

Section 22.56.205 – Conditional Use Permits: Hillside Management and Significant Ecological Areas

Section 22.56.215 establishes standards related to Hillside Management and significant ecological areas (SEAs). According to Section 22.56.215, a conditional use permit is required in order to protect resources contained in SEAs and in Hillside Management areas, as specified in the General Plan, from incompatible development that may result in or have the potential for environmental degradation and/or destruction of

life and property. In extending protection to these environmentally sensitive areas, it is intended further to provide a process whereby the reconciliation of potential conflict within these areas may equitably occur.

The Project was originally submitted prior to the 2012 adoption of the Santa Clarita Valley Area "One Valley, One Vision Plan," consequently the Project site is subject to the policies of the 1990 Santa Clarita Valley Area Plan. Although the Project site is designated within the Santa Susana Mountains/Simi Hills Significant Ecological Area (SEA) in the 2012 One Valley One Vision area plan, SEA 20 Santa Susana Mountains in the 1990 Santa Clarita Valley Area Plan did not include the Project site. Because the Project was originally submitted prior to the 2012 adoption of the "One Valley, One Vision" area plan, which included the expanded SEA boundary, the Project applicant has elected to continue processing with the land use categories and overlays (i.e., SEA) that existed at the time of the original application in 2000. Consequently, there is no SEA designation applicable to the Project site. The Project would provide approximately 165 acres of natural open space (approximately 71 percent of the Project site), which would buffer natural areas to the south and west of the Project site from grading and development associated with the Project. The Project would not impact SEA 20 and would not conflict with local policies or ordinances protecting biological resources.

Existing Conditions[2]

The Project site consists of undeveloped terrain characterized by a series of steep to moderately steep northwest to southeast trending ridges. These ridges descend towards intervening northwest to southeast trending drainage courses that flow towards the centrally located Wickham Canyon. Wickham Canyon, a northerly draining tributary of Pico Canyon, bisects the Project site. Elevations across the Project site range from approximately 1,470 feet above mean sea level (AMSL) near the confluence of Wickham Canyon and Pico Canyon, to approximately 2,000 feet AMSL in the southwest corner of the Project site. The natural slopes on-site exhibit gradients ranging from approximately 1.5:1 to 3:1 (horizontal: vertical), or 67 percent to 33 percent slopes.

Regional Geology[3]

The Project site is located within the eastern Ventura Basin, within the Transverse Ranges geomorphic province of California. The Ventura Basin consists of a narrow, elongate sedimentary trough extending from the Santa Barbara Channel on the west, to the San Gabriel Fault on the east. The axis of the trough trends east to west, reflecting the overall east to west trend of the Transverse Ranges, and generally coincides with the Santa Clara River Valley and the Santa Barbara Channel. The Ventura Basin has been an area of subsidence and sediment accumulation since the beginning of the Tertiary period (approximately 65-66 million years ago), with the present trough-like form developing near the beginning of the Miocene epoch (about 23 million years ago).

The structure of the Basin is defined as a highly folded "synclinorium" formed by north to south compressional forces and containing a maximum 50,000± feet of marine and nonmarine Tertiary-through-Quaternary age sediments. Two main periods of general deformation of the Ventura Basin are indicated by

[2] *Geologic/Geotechnical Evaluation for Environmental Impact Report Vesting Tentative Tract Map No. 52796, Los Angeles County, California, prepared by R.T. Frankian & Associates, dated April 3, 2014 and the 100-Scale Plan Review Vesting Tentative Tract Map No. 52796, Los Angeles County, California, prepared by R.T. Frankian & Associates, dated March 27, 2014.*

[3] *Ibid.*

the regional geologic structure: one in middle to late Miocene (represented by deposition of the Modelo Formation, about 7-10 million years ago) and the other during the Pleistocene epoch (approximately 2-2.5 million years ago), after deposition of the Plio-Pleistocene Saugus Formation (less than 5 million years ago). The flanks of the Ventura Basin synclinorium are broken by a series of large reverse/thrust faults including the Santa Susana Fault and the Oak Ridge Fault on the southern flank, and the Red Mountain Fault and the San Cayetano Fault on the northern flank. The San Gabriel Fault, the dominant geologic feature in the Santa Clarita Valley, forms the eastern Ventura Basin boundary, and separates the Ventura Basin from the structurally similar Soledad Basin.

Sedimentary rock units comprising the eastern Ventura Basin include the following: approximately 2,000 feet of undifferentiated middle-to-late Eocene age rocks (about 34 to 39 million years ago); 1,000± feet of the middle Miocene age Topanga Formation (about 12 to 14 million years ago); 5,000± feet of the late Miocene age Modelo Formation (about 7-9 million years ago); 4,000± feet of the late Miocene to early Pliocene age Towsley Formation (about 3-7 million years ago); 5,000± feet of the Pliocene age Pico Formation (about 2.5-5 million years ago); and 7,000± feet of the Plio-Pleistocene Saugus Formation. The undifferentiated Eocene units and the Topanga, Modelo, Towsley, and Pico Formations are composed of marine sediments. The Saugus Formation is composed of interfingering shallow-water marine, brackish water, and nonmarine units. The Tertiary period rock units rest unconformably on pre-Cretaceous age metamorphic and igneous basement rocks of the San Gabriel Mountains.

Site Geology[4]

The geologic units within the Project site consist of bedrock of the Pico Formation, landslides, slope wash deposits, alluvium, and man-made fill. The geologic units identified within the Project site are illustrated on **Figure 4.5-1**, *Geologic Map*. A description of each unit is presented as follows:

Pico Formation (Tp): Marine sedimentary rock units of the Pliocene age Pico Formation (map unit "Tp") underlie the Project site. These units are comprised of interbedded sandstone, conglomerate, and siltstone. Bed thickness ranges from massive (typically greater than three feet thick) to thickly bedded (one to three feet thick). In general, sandstone and conglomerate beds are brown to orangish brown in color, hard to very hard, weakly cemented to cemented, and moderately to slightly weathered. Siltstone beds are grayish brown to greenish gray, slightly hard to hard, fractured, and very weathered in the upper exposed portions of the rock.

Landslides (Qls): Three landslides have been mapped within the Project boundary. The slides consist of disturbed bedrock materials, typically derived from siltstone units. The landslides have been observed to depths of approximately 30 feet below ground surface. Numerous surficial failures are located on the steep natural slopes on-site. These deposits generally are composed of slope wash and/or weathered rock materials that failed during periods of heavy rainfall. For the most part these deposits are less than ten feet thick.

Alluvium (Qal): Holocene age alluvium is present within Pico Canyon and Wickham Canyon and generally consists of mixtures of sand, silt, gravel, cobbles, and boulders. The observed depths of alluvium in

[4] *Ibid.*


EXPLANATION
sr STOCKPILED OVERSIZE ROCK
af ARTIFICIAL FILL
Qal ALLUVIUM
Qls LANDSLIDE
Tp PICO FORMATION
GEOLOGIC CONTACT
STRIKE AND DIP OF BEDDING
SURFICIAL FAILURE
Water Tank
Water Well
Qal
sr
Tp
af
Qls 2
Qls 1
Qls 3
Wickham Canyon

This page intentionally blank.

exploratory borings ranged from 26 feet in Pico Canyon to 15 feet in Wickham Canyon. The alluvium is generally loose to moderately dense and uncemented.

Slope Wash Deposits (Qsw): Slope wash, or colluvial deposits, are present in drainage swales and side canyons, and at the lower elevations of the natural slopes. The slope wash generally consists of poorly consolidated deposits of sand and silt mixtures.

Man-made Deposits (af and sr): Man-made deposits, associated with past grading activities within the Project site, consist of artificial fill ("af") and stockpiled oversize rocks ("sr"). Artificial fill deposits are located along portions of the Pico Canyon flood plain and within a secondary easterly-draining tributary canyon to Wickham Canyon. For the most part the materials have been derived from the immediately adjacent bedrock materials. The fill within Pico Canyon is generally less than five feet deep. The fill in the area east of Wickham Canyon is estimated to be approximately 30 feet deep. Stockpiled oversize rock is present near the junction of Pico Canyon and Wickham Canyon. This material was presumably generated during grading of the single-family residential community, Southern Oaks, to the east.

Geologic Structure[5]

The Project site is located along the northerly limb of the asymmetrical Pico anticline. Within the Project boundary, the beds forming the northerly limb strike west to northwest and dip 45 to 85 degrees to the north.

Groundwater[6]

The Project site is located in Township 3 North, Range 16 West, Section 6, within the Eastern Hydrologic Subarea of the upper Santa Clara River watershed of the County. Within the Project site, groundwater occurs in the alluvial deposits within Pico Canyon and major tributary canyons. Data from the Water Resources Division of Los Angeles County Department of Public Works (LACDPW) indicates that one water well was located within the Project boundary. This well, designated as Well No. 5802, was located within the flood plain of Pico Canyon, south of Pico Canyon Road. The water level data from this well is limited to one measurement only, obtained on April 11, 1950. The water level at that time was measured at a depth of 22 feet below existing ground surface (corresponding to water surface elevation of approximately 1,472 feet below mean sea level [BMSL]). Previous explorations indicated groundwater within Pico Canyon at depths of 14 to 19 feet below existing ground surface. Groundwater was not encountered in any of the exploratory borings excavated within Wickham Canyon. Geologic and Geotechnical Hazards[7]

Potential geologic and geotechnical hazards include, but are not limited to, primary earthquake hazards (ground shaking and ground rupture), secondary earthquake hazards from earthquake ground shaking (such as liquefaction, tsunamis, and seiches), and landslides/slope instability. Earthquakes have the potential to inflict the greatest loss of life and property damage. Consequently, the location of a site to active or potentially active faults is a key element in assessing the potential for earthquake damage.

[5] *Ibid.*

[6] *Ibid.*

[7] *Ibid.*

The major cause of damage from earthquakes is generally the result of strong ground shaking from movement along a fault or fault zone. Ground shaking could occur not only immediately adjacent to the earthquake epicenter, but within areas for many miles in all directions. Damage due to actual fault displacement or ground rupture beneath a structure may also occur; however, fault ground rupture is much less common, and typically confined to areas along, or immediately adjacent to, the surface trace of the fault. Landslides are common hazards in southern California, particularly in hillside areas underlain by sedimentary rock units. Landslides can occur in terrain ranging from vertical cliffs to slopes as gentle as one or two degrees. Materials on slopes that are subject to landsliding include rock, soil, artificial fill, or combinations of these.

Faults[8]

Earthquakes result from movement along faults or volcanic activity. In California, earthquakes are more commonly associated with faults or fault zones, and the southern California region is historically seismically active. The numerous faults in California include both active and potentially active faults. In accordance with criteria established by the CGS for the Alquist-Priolo Earthquake Fault Zoning program, a fault can be considered active if it has demonstrated movement within the Holocene epoch, or approximately the last 11,000 years. Faults that have demonstrated Quaternary movement (last 1.6 million years), but lack strong evidence of Holocene movement, are classified as potentially active. Faults that have not moved since the beginning of the Quaternary period are deemed inactive.

No known active faults underlie the Project site. Further, the Project site is not within an Alquist-Priolo Earthquake Fault Zone, as established by CGS. The closest active (and zoned) faults to the Project site are several minor, discontinuous flexural-slip faults observed in Stevenson Ranch following the 1994 Northridge earthquake, and the San Gabriel Fault. The flexural-slip faults are located approximately one mile northeast of the Project site. The San Gabriel Fault is located approximately four miles to the northeast. According to the Geotechnical Evaluation, there is little probability of surface rupture due to faulting occurring on-site during the design life of the Project.

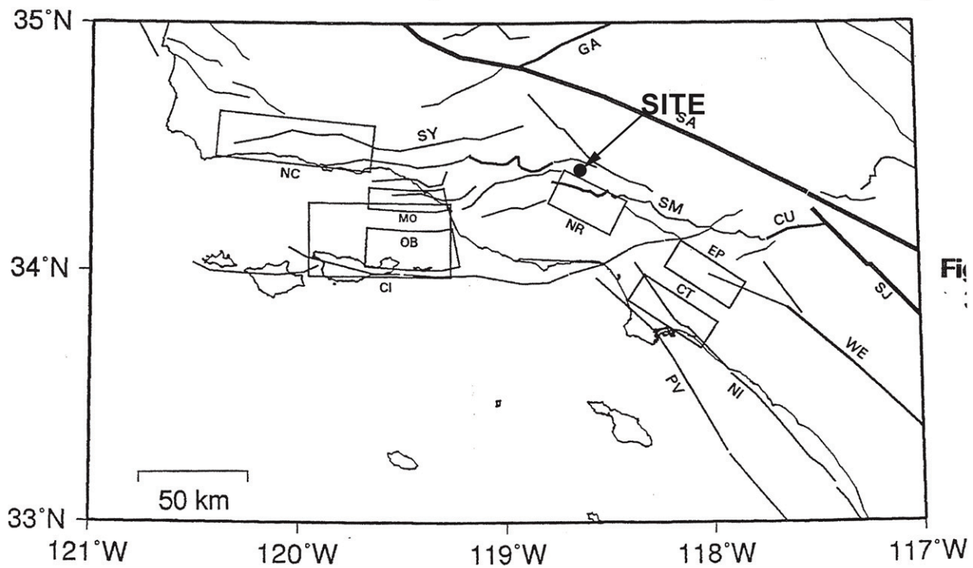
The Project site is located within an area potentially susceptible to severe ground shaking due to the close proximity of several active faults, including the flexural-slip faults within Stevenson Ranch, the San Gabriel Fault, the Santa Susana Fault, the Oak Ridge Fault, and the San Cayetano Fault. Potentially active faults near the Project site include the Holser Fault and Del Valle Fault. The location of the Project site, relative to nearby active and potentially active faults, is illustrated on **Figure 4.5-2**, *Regional Fault Map.*

Flexural-Slip Faults: Following the 1994 Northridge earthquake, CGS mapped ground distress cracks near the mouth of Pico Canyon. Initially CGS concluded that the distress cracks were not the result of primary surface rupture of the causative fault. Instead, the cracks were the manifestation of secondary surface rupture associated with slippage along existing bedding-planes (also referred to as flexural slip). According to CGS Fault Evaluation Report (FER) FER-242, the flexural slip was associated with the tightening of the Pico anticline in response to the seismic forces operating during the Northridge earthquake. Subsequent to the release of the CGS FER report, the ground cracking was investigated by GeoSoils, Inc. (GeoSoils) and Alan E. Seward Engineering Geology, Inc. (AES). Both GeoSoils and AES offered differing interpretations

[8] *Ibid.*

Geologic Time Scale	Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION: ON LAND	DESCRIPTION: OFFSHORE
Quaternary – Holocene – Historic				Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.	
Quaternary – Late Quaternary – Holocene	200		? ? ? ? ?	Displacement during Holocene time.	Fault offsets seafloor sediments or strata of Holocene age.
Quaternary – Late Quaternary – Pleistocene	10,000		? ? ? ? ?	Faults showing evidence of displacement during late Quaternary time.	Fault cuts strata of Pleistocene age.
Quaternary – Early Quaternary – Pleistocene	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. Late Cenozoic faults within the Sierra Nevada, including parts of, but not restricted to, the Foothills fault system. These faults may have been active in Quaternary time.	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. Pre-Quaternary faults not shown in Nevada and Oregon.	Fault cuts strata of Pliocene or older age.
	4.5 billion (Age of earth)				

APPROXIMATE LOCATION OF SOUTHERN CALIFORNIA BLIND THRUST FAULTS (Modified from Petersen, at al. 1996)





Reference: Modified from Jennings (1994).

This page intentionally blank.

regarding the rupture mechanism for the distress cracks. The varied interpretations included seismically triggered elastic rebound, seismic shaking, lurching, and settlement of the ridge flank. CGS designated six of the surface distress cracks as "faults" that are "sufficiently active and well-defined". These faults lie approximately one mile northeast of the Project site and have been included in an Alquist-Priolo Earthquake Fault Zone by the State Geologist.

San Gabriel Fault: The active San Gabriel Fault is located approximately four miles northeast of the Project site. The San Gabriel Fault extends approximately 90 miles through the Transverse Ranges of southern California and consists of a zone of imbricate steeply north-dipping faults. Throughout most of its extent, this Fault has strong geomorphic expression, with the faults comprising the zone characterized by displaced geologic units, deflected drainages, strike valleys, notched ridges, subparallel faulting, fracturing, and folding. Within the Santa Clarita Valley, from Castaic Creek to the San Gabriel Mountains, the Fault crosses the Castaic lowlands and the Santa Clara River, where its course is marked by a belt of braided small faults and steep dips in Pliocene and Pleistocene beds. Since most of the displacement within the San Gabriel Fault zone took place before deposition of these geologically young beds, the Fault's trend through this area is not nearly as conspicuous as within the rocks along the southwestern margin of the ridge basin or in the basement rocks of the San Gabriel Mountains. The location of the Fault, however, is somewhat defined by the steeply-dipping and folded beds of the Plio-Pleistocene Saugus Formation, and the Fault is exposed in cut slopes, roadcuts, and trenches.

Prior to 1979, most geologists studying the San Gabriel Fault acknowledged that late Pleistocene (approximately the past 100,000 years) activity along the fault zone was probable, but evidence for possible Holocene activity was judged to be very questionable. However, after completing a geologic and geomorphic investigation of the San Gabriel Fault, it was concluded that some evidence strongly suggested Holocene activity. Subsequently, exploratory trenching was conducted along segments of the fault zone in the Santa Clarita Valley. Although no surface evidence of faulting was recognized, at least two trenches revealed displacement of Holocene age alluvial deposits. Radiocarbon analyses of detrital charcoal from faulted alluvial materials in a trench excavated in Rye Canyon yielded an age of 3,500 $\pm$ 250 years before present. Alluvium dated as 1,550 $\pm$ 190 years before present was shown to be unfaulted in the same trench, establishing limits of latest movement on the Castaic-Bouquet Junction segment of the San Gabriel Fault. Based on the findings of these studies and the recommendations for a CGS Fault Evaluation Report for the Fault, the State Geologist established an Alquist-Priolo Earthquake Fault Zone within the Newhall Quadrangle for the San Gabriel Fault in 1987.

Santa Susana Fault: The Santa Susana Fault, located approximately 3.5 miles southwest of the Project site, consists of a complex zone of primarily north dipping thrust faults. The Santa Susana Fault zone extends northeastward from the Santa Susana Mountains, across San Fernando Pass, and into the San Gabriel Mountains. A short segment of the Santa Susana Fault ruptured during the 1971 San Fernando earthquake. However, the remainder of the fault zone has not demonstrated displacement since late Pleistocene time.

Oak Ridge Fault: The Oak Ridge Fault is a south dipping reverse fault that forms a ridge to the south of its trace. The Fault extends for a distance of approximately 56 miles from Piru on the east, to offshore at a point approximately 20 miles south of Santa Barbara. The onshore segment of the Oak Ridge Fault is roughly parallel to both the Santa Clara River and State Highway 126. The offshore segment is associated with a definite zone of active seismicity. The only known Holocene surface rupture is found onshore, between the towns of Bardsdale and Fillmore. At its eastern end, the Oak Ridge Fault appears to be overthrust by the

Santa Susana Fault, becoming a "blind thrust fault". The Fault associated with the 1994 Northridge earthquake is probably associated with the Oak Ridge Fault system. At its closest point, the Oak Ridge Fault is situated approximately 3.5 miles west of the Project site.

San Cayetano Fault: The San Cayetano Fault is an east-to-west trending, north dipping thrust fault that extends approximately 28 miles from the foothills north of Piru to the southeastern edge of Ojai Valley. Studies suggest that Holocene fault activity is indicated by well-defined fault scarps and off-set Holocene alluvial and colluvial sediments. The San Cayetano Fault is located approximately six miles west to northwest of the Project site.

San Fernando Fault: The San Fernando Fault zone comprises one of a number of left lateral/reverse frontal faults bounding the southern margin of the San Gabriel and Santa Susana Mountains. Movement along segments of the San Fernando Fault zone occurred on February 9, 1971, causing the magnitude 6.4 San Fernando earthquake. At its closest point, the San Fernando Fault zone is approximately six miles southeast of the Project site.

San Andreas Fault Zone: The San Andreas Fault zone is approximately 22 miles northeast of the Project site. This fault zone, California's most prominent geological feature, trends generally northwest for almost the entire length of the State. The southern segment, closest to the Project site, is approximately 280 miles long and extends from the Mexican Border to the Transverse Ranges west of Tejon Pass. Studies estimated the recurrence interval for a magnitude 8.0 earthquake along the entire Fault to be between 50 and 200 years. The 1857 Fort Tejon earthquake was the last major earthquake along the San Andreas Fault zone in Southern California.

Holser Fault: The Holser Fault consists of a south dipping, sharply folded reverse fault that trends east-to-southeast from near Piru Creek to at least Castaic Junction. The location of the Fault south of Castaic Junction is highly speculative, and the southerly fault terminus may be at approximately the Santa Clara River. The Holser Fault post-dates deposition of the Pico Formation and is believed to be a "backthrust" of a subsurface thrust fault that represents the intersection of the San Cayetano Fault and the Santa Susana Fault at depth. Studies state that there is no clear evidence of Holocene activity along the Holser Fault, but "plentiful evidence" that activity has occurred in the past 100,000 years. A surface fault rupture hazard assessment was conducted for the Holser Fault near the Castaic Junction. It was concluded that the last known movement on the Holser Fault was approximately 40,000 to 100,000 years ago. Consequently, the fault is considered potentially active. The Holser Fault is located approximately three miles north of the Project site.

Del Valle Fault: The Del Valle Fault trends eastward from the Los Angeles-Ventura County line for nearly two miles, turning southward before crossing San Martinez Grande Canyon near its confluence with the Santa Clara River. According to studies, the eastward-trending segment of the Del Valle fault consists of a south-dipping reverse fault. The southward-trending segment is considered a tear (strike-slip) fault. The age of the Fault is estimated to be late Quaternary. Based on published mapping, the southerly terminus of the Del Valle Fault lies approximately 5.4 miles northwest of the Project site.

Blind-Thrust Faults: A growing body of geologic and seismologic data, supplemented by regional structural interpretations, suggests Pliocene-to-modern deformation in the Los Angeles Basin is partly accommodated by developing basement-involved fold and thrust belts. The fold and thrust belts are expressed at the

ground surface by elongate, low-lying anticlinal ridges. At the core of these anticlinal ridges are low-angle, blind-thrust faults rising off a basal detachment surface. Recognized blind-thrust faults in the Los Angeles Basin and Ventura Basin include the Elysian Park, Compton-Los Alamitos, Oak Ridge, and Northridge blind-thrust faults. The closest known blind-thrust fault to the Project site is the Northridge Blind-Thrust Fault. The Project site, however, is not underlain by any known blind-thrust fault.

Seismicity[9]

Seismicity is the geographic and historical distribution of earthquakes, including their frequency, intensity, and distribution. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking. A common measure of ground motion is the peak ground acceleration ("pga"). It is not a measure of total energy of an earthquake, such as the Richter and moment magnitude scales, but rather of how hard the ground shakes in given geographic area. PGA is expressed as the percentage of the acceleration due to gravity, or ground motion ("g"), which is approximately 980 centimeters per second squared. According to the United States Geological Survey (USGS), the following chart shows the extent of perceived shaking and potential damage associated with a given acceleration:

Acceleration (g)	Perceived Shaking	Potential Damage
< 0.0017	Not felt	None
0.0017 - 0.014	Weak None	None
0.014 - 0.039	Light	None
0.039 - 0.092	Moderate	Very Light
0.092 - 0.18	Strong	Light
0.18 - 0.34	Very Strong	Moderate
0.34 - 0.65	Severe	Moderate to Heavy
0.65 - 1.24	Violent	Heavy
> 1.24	Extreme	Very Heavy

Source: United States Geological Survey. Accessed from website at: http://en.wikipedia.org/wiki/Peak_ground_acceleration. December 2014.

The moment magnitude scale is used by seismologists to measure the size of an earthquake in terms of the energy released. This scale is calibrated to, but replaces the more limited Richter magnitude scale. Although similar in the continuum of magnitude values, the scales are calculated differently, and the moment magnitude scale does not have the limitations associated with the Richter scale. The following chart shows the extent of earthquake effects in terms of magnitude associated with a given acceleration:

[9] *Ibid.*

Magnitude ("m")	Description	Potential Damage
Less Than 2.0	Micro	Microearthquakes, not felt, or felt rarely by sensitive people. Recorded by seismographs
2.0 to 2.9	Minor	Felt slightly by some people. No damage to buildings.
3.0 to 3.9	Minor	Often felt by people, but very rarely causes damage. Shaking of indoor objects can be noticeable.
4.0 to 4.9	Light	Noticeable shaking of indoor objects and rattling noises. Felt by most people in the affected area. Slightly felt outside. Generally causes none to minimal damage. Moderate to significant damage very unlikely. Some objects may fall off shelves or be knocked over.
5.0 to 5.9	Moderate	Can cause damage of varying severity to poorly constructed buildings. At most, none to slight damage to all other buildings. Felt by everyone. Casualties range from none to a few.
6.0 to 6.9	Strong	Damage to a moderate number of well-built structures in populated areas. Earthquake-resistant structures survive with slight to moderate damage. Poorly-designed structures receive moderate to severe damage. Felt in wider areas; up to hundreds of miles/kilometers from the epicenter. Strong to violent shaking in epicentral area.
7.0 to 7.9	Major	Causes damage to most buildings, some to partially or completely collapse or receive severe damage. Well-designed structures are likely to receive damage. Felt across great distances with major damage mostly limited to 250 km from epicenter.
8.0 to 8.9	Great	Major damage to buildings, structures likely to be destroyed. Will cause moderate to heavy damage to sturdy or earthquake-resistant buildings. Damaging in large areas. Felt in extremely large regions.
9.0 and greater	Great	Near or at total destruction - severe damage or collapse to all buildings. Heavy damage and shaking extends to distant locations. Permanent changes in ground topography.

Source: United States Geological Survey. Accessed from website at: http://en.wikipedia.org/wiki/Richter_magnitude_scale#cite_note-18 October 2013.

The historic occurrence of earthquakes within the region of the Project site was determined using the program EQSEARCH for Windows. This program computes and prints the epicenter distance from a selected site to each of the earthquakes within a specified search radius (100 miles). From the computed distances, the program also estimates the peak horizontal ground acceleration that may have occurred at the site, due to each earthquake, utilizing the Bozorgnia-Campbell-Niazi attenuation relationship. A historic earthquake search for the time period 1932 through 2013 was also attained from the Southern California Earthquake Center (SCEC) website, as the data for the EQSEARCH program has not been updated since 2005. There have only been two magnitude 5.0 or larger events within the vicinity of the Project site since 2005, within the 100 mile search radius. The Chino Hills earthquake occurred on July 29, 2008 and registered a magnitude of 5.40 (M5.40). The epicenter of this earthquake was approximately 58 miles east of the Project site. The most recent earthquake with a magnitude greater than 5.0 was located in La Habra and occurred on March 29, 2014.

Based on the EQSEARCH output, the closest recorded earthquake epicenter was located 1.2 miles from the Project site. This earthquake event, with a measured magnitude of 5.1 (M5.1), occurred on January 19, 1994 and was likely an aftershock of the Northridge earthquake of January 17, 1994. At least 14 events of M5 or greater have occurred within 15 miles of the Project site during the period of 1800 to 2013. Most of the M5

or greater events were associated either with the February 9, 1971, M6.4 San Fernando earthquake or the January 17, 1994, M6.7 Northridge earthquake. The San Fernando earthquake resulted in a calculated site-specific ground motion measured at 0.225g. Ground motion at the Project site from the Northridge earthquake was 0.264g. The largest known earthquake event occurring within 100 miles of the Project site was the M7.9 Fort Tejon earthquake of January 9, 1857. The epicenter of this earthquake was approximately 93 miles from the Project site. The estimated site-specific ground motion from the Fort Tejon earthquake was 0.075g. The largest recorded earthquake ground motion at the Project site occurred on April 4, 1893, with an estimated ground motion of 0.340g. The epicenter of this earthquake was located approximately 5.2 miles from the Project site.

Liquefaction[10]

Liquefaction may occur when saturated, loose-to-medium-dense, cohesionless soils are densified by ground vibrations. The densification results in increased pore water pressures if the soils are not sufficiently permeable to dissipate these pressures during, and immediately following, an earthquake. When the pore water pressure is equal to or exceeds the overburden pressure, liquefaction of the affected soil layers occurs. For liquefaction to occur, three conditions are required: (1) ground shaking of sufficient magnitude and duration; (2) soils that are susceptible to liquefaction; and (3) a groundwater level at or above the level of the susceptible soils during the ground shaking. For a site to be considered susceptible to liquefaction, liquefaction of underlying soil layers must result in an observed surface effect such as sand boils, mud-spouts, surface water seepage, ground cracking, or quicksand-like conditions. Lateral spreading can result in ground cracking, and may occur when a site is sloped or is near a free-face and there is a sufficiently continuous liquefiable layer on which the overlying soils can move laterally. Ground settlement may occur during seismic shaking of an area. The settlement can be caused by liquefaction of loose granular soils and by compaction of loose, but not necessarily liquefiable, soils.

The State of California Seismic Hazard Maps for the Newhall Quadrangle (1998) and Oat Mountain Quadrangle (1998) indicate that within the Project boundary, Pico Canyon and Wickham Canyon are considered potential liquefaction areas. The potential liquefaction areas are depicted on illustrated on **Figure 4.5-3**, *Seismic Hazard Zones.*

Subsidence and Hydroconsolidation[11]

The Project site is not within an area of known peat deposits or subsidence associated with petroleum or groundwater withdrawal. Hydroconsolidation is the process by which dry alluvial soils, with high void-ratio, collapse under structural load in response to the application or introduction of water into the soils. The Geotechnical Evaluation identified the upper ten feet of natural alluvial soils within Pico Canyon as potentially susceptible to hydroconsolidation.

[10] *Ibid.*

[11] *Ibid.*

Landslides/Slope Stability[12]

Three landslides have been identified within the Project site and designated as "Qls 1 through Qls 3"; refer to Figure 4.5-1. Landslide Qls 1 is located outside of the Project grading limits, approximately 200 feet upstream of a future debris basin and 300 feet from the nearest lot (lot number 49). Landslide Qls 2 lies within the proposed grading limits, beneath proposed lot numbers 71 through 73. Landslide Qls 3 is located approximately 1000 feet south of the proposed future fire lane/private driveway. Further, numerous surficial failures have been identified within the Project site.

Tsunamis and Seiches[13]

The Project site is not located within the coastal zone and therefore not susceptible to tsunamis. The Project site is not located downslope of any large impounded bodies of water that would adversely impact the site as a result of seiches (oscillations in a body of water due to earthquake shaking). Therefore, the Project site is considered safe from hazards associated with tsunamis or seiches.

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provides thresholds of significance to determine whether a project would have a significant environmental impact regarding geology and soils. Based on the size and scope of the Project and the potential for geology and soils impacts, the threshold identified below is included for evaluation in this EIR. Please refer to Section 6.0, *Mandatory Findings of Significance*, for a discussion of other issues associated with evaluation of geology and soils in which the characteristics of the Project made it clear that effects would not be significant and further evaluation in this section was not warranted.

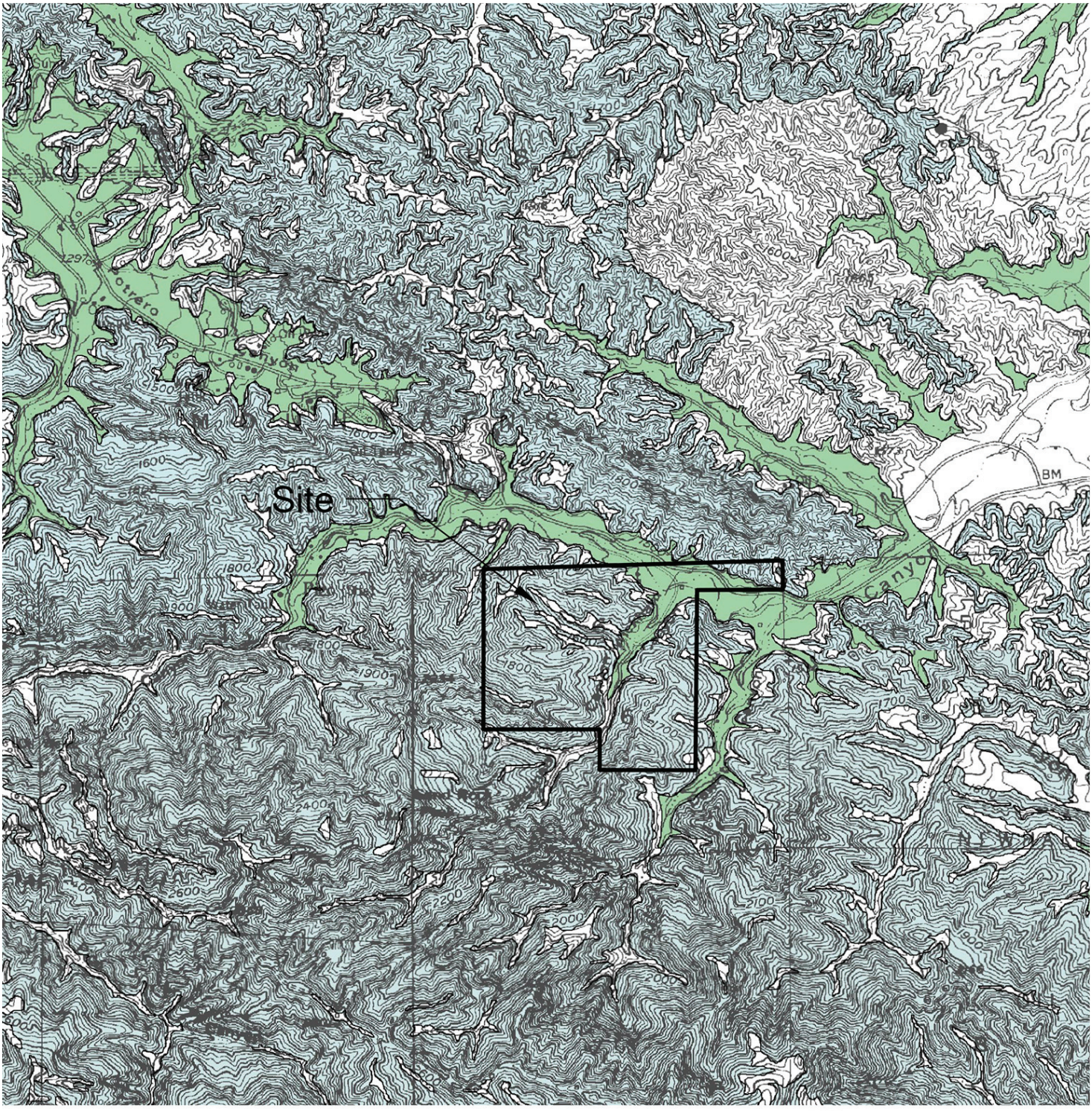
Would the Project:

Threshold GEO-1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving (refer to Impact Statement 4.5-1):

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42?
- Strong seismic ground shaking?
- Seismic-related ground failure, including liquefaction and lateral spreading?
- Landslides?

[12] *Ibid.*

[13] *Ibid.*



U.S.G.S 7.5 MINUTE

OAT MOUNTAIN QUADRANGLE

OFFICIAL MAP

Released: February 1, 1998

NEWHALL QUADRANGLE

OFFICIAL MAP

Released: February 1, 1998

PCR

N

Seismic Hazard Zones

Aidlin Hills

Source: R. T. Frankian & Associates, 2014.

FIGURE

4.5-3

This page intentionally blank.

Threshold GEO-2: Result in substantial soil erosion or the loss of topsoil? (refer to Impact Statement 4.5-2);

Threshold GEO-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (refer to Impact Statement 4.5-1);

Threshold GEO-4: 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? (refer to Impact Statement 4.5-3);

Threshold GEO-5: Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater? (refer to Impact Statement 4.5-4); and

Threshold GEO-6: Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, Section 22.56.215) or hillside design standards in the County General Plan Conservation and Open Space Element? (refer to Impact Statement 4.5-5);

Methodology

This impact analysis is based on the Geotechnical Evaluation and the 100-Scale Plan Review, which are both included in Appendix E of this EIR. R.T. Frankian & Associates has responded to the County's review/comments of these reports (responses dated July 24, 2014, November 12, 2014, and February 2, 2015). These responses to the County's comments are reflected within the analysis below. The purpose of the Geotechnical Evaluation was to assess the impacts of the geologic/geotechnical conditions on future site development. The 100-Scale Plan Review evaluated the proposed development of the Project site and provided geotechnical recommendations as required. Previous geotechnical studies conducted on the Project site were performed by GeoSoils, Inc. (GeoSoils) in 1989 and 1997 and The J. Byer Group, Inc. (J. Byer) in 2000. Data from these reports were reviewed and evaluated in both the Geotechnical Evaluation and the 100-Scale Plan Review. The findings, conclusions, and recommendations presented in the Geotechnical Evaluation and the 100-Scale Plan Review are based on concurrent and previous geotechnical reports, results of a review of published data, and appropriate engineering and geologic analysis. The analysis and findings in the Geotechnical Evaluation and the 100-Scale Plan Review serve as the basis for identifying the potential for the Project to result in significant impacts. Determinations of impact significance were established using the thresholds of significance listed in the preceding section.

Project Design Features

The Project would comply with all applicable grading and building requirements related to geology and soil conditions, and incorporate the recommendations from the Geotechnical Evaluation and the 100-Scale Plan Review into the project design. The project design features (PDF) below would be incorporated into the Project.

Liquefaction

PDF 5-1: The upper alluvial soils susceptible to liquefaction within Wickham Canyon shall be removed.

Landslides

PDF 5-2: During grading, remove the existing landslide within the grading footprint.

Hydroconsolidation

PDF 5-3: Alluvial soils susceptible to hydroconsolidation shall be removed to competent natural material during grading. All alluvial deposits within the grading footprint shall be removed.

Analysis of Project Impacts

Seismic and Geologic Stability Hazards

Threshold GEO-1 Would the Project 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 active fault trace?

(ii) Strong seismic ground shaking?

(iii) Seismic-related ground failure, including liquefaction and lateral spreading?

(iv) Landslides

and

Threshold GEO-3 Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Impact Statement 4.5-1: Implementation of the Project could expose people or structures to fault rupture, strong seismic ground shaking, strong seismic-related ground failure, liquefaction, lateral spreading, landslides, and other ground failure hazards. However, compliance with applicable regulatory requirements and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations and project design features would reduce potentially significant impacts in these regards to a less than significant level.

Fault Rupture

As discussed under Existing Conditions, no known active or potentially active faults underlie the Project site. Further, the Project site is not within an Alquist-Priolo Earthquake Fault Zone, as established by the CGS. The nearest active (and zoned) faults to the Project site are several minor, discontinuous flexural-slip faults observed in Stevenson Ranch following the 1994 Northridge earthquake, and the San Gabriel Fault. The flexural-slip faults are located approximately one mile northeast of the Project site. The San Gabriel Fault is located approximately four miles to the northeast. The nearest potentially active faults to the Project site are the Holser Fault and Del Valle Fault, located approximately three miles north and 5.4 miles northwest, respectively. According to the Geotechnical Evaluation and 100-Scale Plan Review, there is little probability of surface rupture due to faulting occurring on-site during the design life of the Project. Thus, a less than significant impact regarding fault rupture would occur.

Seismic Ground Shaking

As discussed under Existing Conditions, the Project site is located within an area of potentially susceptible to severe ground shaking due to the close proximity of several active faults, including the flexural-slip faults within Stevenson Ranch, the San Gabriel Fault, the Santa Susana Fault, the Oak Ridge Fault, and the San Cayetano Fault. Potentially active faults near the Project site include the Holser Fault and Del Valle Fault. The location of the Project site relative to nearby active and potentially active faults is illustrated on Figure 4.5-2.

The Geologic Evaluation and 100-Scale Plan Review calculated site-specific ground motions of 0.264g and 0.225g associated with the 1994 Northridge earthquake and the 1971 San Fernando earthquake, respectively. According to the USGS, ground motion measurements of 0.264g and 0.225g have a "very strong" perceived shaking with "moderate to heavy" potential for damage. If this relatively high ground acceleration was not considered in the design and construction phase, ground shaking at this intensity could result in significant damage to buildings and improvements associated with Project implementation. This is considered to be a potentially significant impact.

The County requires that all new construction meet or exceed the current State and County ordinances and policies, including those within the County's Building Code and Grading Ordinance, and the latest standards of the 2013 California Building Code for construction in seismic hazard zones; this requires structural designs that can accommodate maximum ground accelerations expected from known faults. Further, the Project would comply with the CGS *Special Publications 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California*, which provides guidance for evaluation and mitigation of earthquake-related hazards. The Geotechnical Evaluation and the 100-Scale Plan Review indicates that based on the review of available information, the results of on-site explorations, and the laboratory testing and analyses, the Project is feasible from a geotechnical perspective. The Geotechnical Evaluation and the 100-Scale Plan Review provide final site-specific design recommendations and parameters regarding grading and earthwork, temporary excavations, drainage, foundations, floor slab support, retaining walls, and pavement design. Incorporation of these recommendations would reduce the potential for significant damage to structures resulting from strong seismic ground shaking and the exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death, to the maximum extent practical. Thus, compliance with applicable regulatory requirements (e.g. the County's Building Code and Grading Ordinance, the CGS, etc.) and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations, potentially significant seismic-related impacts would be reduced to a less than significant level.

Ground Failure

As discussed under Existing Conditions, the State of California Seismic Hazard Maps for the Newhall Quadrangle (1998) and Oat Mountain Quadrangle (1998) indicate that within the Project boundary, Pico Canyon and Wickham Canyon are considered potential liquefaction areas. The potential liquefaction areas are depicted in Figure 4.5-3. Liquefaction, as well as other ground failure hazards such as lateral spreading, flow failures, ground oscillations, sand boils, and/or general loss of bearing strength can lead to near-surface or surface ground failure that can result in property damage and structural failure. Should any structures be located in areas potentially susceptible to ground failure hazards, a potentially significant impact would occur.

According to the Geotechnical Evaluation and the 100-Scale Plan Review, at the completion of grading operations, there will be no remaining soils potentially subject to liquefaction within the proposed habitable areas of the Project. Further, the Project site is not subject to liquefaction related lateral spread. The Geotechnical Evaluation and the 100-Scale Plan Review provides recommendations and project design features to reduce the potential for significant liquefaction and other ground failure hazard impacts. The Wickham Canyon alluvial deposits within the proposed grading areas will be removed to bedrock, which will eliminate the potential for liquefaction. Within the proposed "A" Street, as it approaches Pico Canyon, the upper loose alluvial soils to depths between 10 to 15 feet will be removed and replaced with compacted fill soils. However, some alluvial soils are proposed to remain in place below the existing groundwater elevation. The remaining alluvium soils, which are underlain by bedrock materials, will be mantled by certified engineered fill. Accordingly, the portion of proposed "A" Street within a potential liquefiable area will be underlain by a combination of bedrock materials, dense alluvial deposits, and certified engineered fill. The maximum total static settlement will be approximately 1.25 inches, and static and seismic differential settlements will be less than 1.0 inches of vertical movement across a horizontal distance of 30 feet. The proposed utilities and other improvements within "A" Street will be designed to resist the potential static and dynamic settlements induced by liquefaction.

The Project would comply with the CGS *Special Publications 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California*, which provides guidance for evaluation and mitigation of earthquake-related hazards, including liquefaction. In addition, the Project would comply with current State and local building and safety codes, including other CGS requirements, the County's Building Code and Grading Ordinance, and the 2013 California Building Code. Implementation of the above-mentioned Geotechnical Evaluation and the 100-Scale Plan Review recommendations, project design features, and compliance with the building code regulations would reduce the potential for significant liquefaction and other ground failure hazard impacts to structure and people, including the risk of loss, injury, or death, to the maximum extent feasible. As such, less than significant impacts regarding liquefaction and other ground failure hazards would occur with compliance with applicable regulatory requirements and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations and project design features.

Landslides/Slope Stability

As discussed under Existing Conditions, three landslides have been identified within the Project site; refer to Figure 4.5-1. Landslide Qls 1 is located outside of the Project grading limits, approximately 200 feet upstream of a future debris basin and 300 feet from the nearest lot (lot 49). Based on the distance of the landslide from the development, the presence of Qls 1 will have no impact on the proposed development. Landslide Qls 2 lies within the proposed grading limits, beneath proposed lot numbers 71 through 73. This landslide would be entirely removed during site grading. Where necessary, engineered fill will be placed in the landslide removal area to restore proposed slope and/or pad grades. Landslide Qls 3 is located approximately 1000 feet south of the proposed future emergency access fire lane. Based on the distance of the landslide from the development, the presence of Qls 3 will have no impact on the proposed development.

Along with existing landslides, slope stability considerations include future cut-and-fill slopes, slopes that will remain natural at the completion of grading, and debris flow associated with natural slopes and rockfall hazards. The proposed site development will include the grading of numerous cut slopes. The cut slopes and fill slopes will be graded at inclinations of 2:1. All cut slopes and fill slopes exceeding 30 feet in height will be designed with terrace drains every 25 vertical feet. The maximum proposed cut slope is approximately 120 feet in height. The maximum proposed fill slope height is approximately 70 feet. Fill

slope materials will be compacted to 90 percent or greater. The natural slopes proposed for the Project have gradients ranging from 1.5:1 to 3:1. The proposed cut slopes and fill slopes will be stable if graded in accordance with the Geotechnical Evaluation and the 100-Scale Plan Review recommendations. The natural slopes will be grossly stable if the adjacent grading is confined to the proposed grading limits and does not undercut natural slopes outside of the grading limits. The standard setbacks from grossly stable ascending and descending natural slopes provided in the County's Building Code shall also be followed, where not superseded by the recommended building setbacks.

Potential debris flow hazard exists anywhere that a moderate-to-thick accumulation of residual soil, slope wash, or weathered bedrock materials occur on moderate-to-steep descending slopes that border future building pads. Potential debris flow may be mitigated by one or a combination of the following measures: remove loose surficial material; construct diverter slough walls; construct an impact wall; construct debris basins; construct stabilization fill slopes; control run-off water; and plant selective deep-rooting vegetation. In general, building lots most susceptible to potential debris flow are those lots located directly below and adjacent to natural slopes. According to the Geotechnical Evaluation and the 100-Scale Plan Review, potential debris flow areas have been identified below natural slopes at the rear of lot numbers 47 through 50 and lot numbers 72, 75, and 82. Site-specific design recommendations include a debris flow channel to be constructed along the south side of lot numbers 47 through 50, and two debris basins at the rear of lot numbers 72 through 75. Further, lot numbers 47 through 50 and lots 72 and 75 will be elevated at a minimum of four feet above the adjacent debris channel and/or basins. The easterly two-thirds of the rear of lot number 82 will border on an ascending cut slope; the remaining one-third of the lot will be separated from the natural slope by a ten-foot-wide drainage swale that will direct water and debris to a debris basin. The remaining lots within the Project site have acceptable separation, either vertical or horizontal, from natural slopes and potential debris flow source areas. Therefore, potential debris flow impacts are anticipated to be minimal. Further, future building pads within the Project site will not be located directly downslope of any potential rockfall areas.

Overall, the Geotechnical Evaluation and the 100-Scale Plan Review provides recommendations and project design features regarding grading and earthwork, temporary excavations, drainage, foundations, floor slab support, retaining walls, and pavement design. Compliance with the applicable regulatory requirements and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations and project design features would minimize the potential for landslide and slope stability hazards. Thus, a less than significant impact regarding landslides/slope stability would occur.

Soil Erosion or Loss of Topsoil

Threshold GEO-2 Would the Project result in soil erosion or the loss of topsoil?

Impact Statement 4.5-2: Implementation of the Project could result in substantial soil erosion or the loss of topsoil. However, compliance with applicable regulatory requirements would ensure impacts in these regards are less than significant.

Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur in the Project area where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses. During construction, the Project site would be subject to ground-

disturbing activities (e.g., removal of the existing vegetation, excavation and grading, foundation and infrastructure construction, the installation of utilities). The Project would require approximately 1,300,000 cubic yards of cut material, with all cut material being used as fill material within the site. The Project grading plan would balance the grading quantities such that no import or export of soil would be required. These activities would expose soils for a limited time, allowing for possible erosion.

Although Project construction activities have the potential to result in the erosion of soils, this potential would be reduced by implementation of standard erosion control measures imposed during site preparation and grading activities. For instance, the Project would be subject to all existing regulations associated with the protection of water quality. Construction activities would be carried out in accordance with the requirements of the NPDES General Construction Permit (MS4 Permit) issued by the Regional Water Quality Control Board (RWQCB) and in accordance with the Project's Stormwater Pollution Prevention Plan ("SWPPP"). The SWPPP would incorporate BMPs and LID building requirements in accordance with the County regulations included in Chapter 12.80, Stormwater and Runoff Pollution Control and Chapter 12.84, Low Impact Development Standards, of the Los Angeles County Code of Ordinances, to control erosion during the Project's construction period to the satisfaction of LACDPW Division of Building and Safety. BMPs could include, but are not limited to, water bars, silt fences, staked straw bales, avoidance of water bodies during construction, development of and adherence to the construction SWPPP, and development of and adherence to erosion and sediment control BMPs. Further, after construction of the Project, the non-paved, exposed areas of fill would be landscaped. The installation of landscaping would serve to protect the soils and reduce any erosion that would occur. Therefore, with compliance with applicable regulatory requirements during construction SWPPP and operation implementation of the Low Impact Development ("LID") requirements and associated BMPs, impacts regarding soil erosion or the loss of topsoil would be less than significant.

Expansive Soils

Threshold GEO-4 Would the Project 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?

Impact Statement 4.5-3: Implementation of the Project could expose people or property to substantial risks associated with expansive soils. However, compliance with applicable regulatory requirements and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations and project design features would reduce such impacts to a less than significant level.

Soils with shrink-swell or expansive properties typically occur in fine-grained sediments and cause damage through volume changes as a result of a wetting and drying process. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Groundwater within the Project site occurs in the alluvial deposits within Pico Canyon and major tributary canyons. Exploration completed within the Project site indicated groundwater within Pico Canyon at depths of 14 to 19 feet below the existing ground surface. Groundwater was not encountered in any of the exploratory borings excavated within Wickham Canyon. According to the Geotechnical Evaluation and the 100-Scale Plan Review, the recommended removal depths during grading operations are above the reported groundwater elevations and dewatering is not expected to be required. The fine-grained units (i.e., siltstone and clayston units) within the Pico Formation may be expansive in nature. Samples of the on-site soils were obtained during the investigation of the Project site for laboratory

expansion index testing. The tests were performed to determine the expansion potential of the soils. According to the Geotechnical Evaluation and the 100-Scale Plan Review, the results of the testing indicates that the compacted fill generated from the on-site soils will have a low to medium potential for expansion that varied from 46 to 75 feet deep. The site soils can be classified as having a very low to medium potential for expansion. Given that on-site soils include expansive characteristics, impacts in this regard are determined potentially significant. Where expansive soils are found, site-specific design criteria (i.e., foundation design parameters, retaining walls) and remedial grading techniques (i.e., primarily removal, moisture conditions and recompaction of unsuitable soils) would be identified and implemented per the Geotechnical Evaluation and the 100-Scale Plan Review recommendations to minimize the potential for risks due to expansive soils. Thus, with incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations, potentially significant impacts with regards to expansive soil would be reduced to a less than significant level.

Onsite Wastewater Treatment Systems

Threshold GEO-5 Would the Project have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater?

Impact Statement 4.5-4: Implementation of the Project would not result in soils incapable of adequately supporting the use of onsite wastewater treatment systems, as the Project would not involve the use of septic tanks or alternative wastewater disposal systems.

The Project would not involve the use of septic tanks or alternative wastewater disposal systems. As such, no impacts would occur in this regard.

Hillside Management Area Ordinance/County General Plan Conservation and Open Space Element

Threshold GEO-6 Would the Project conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, Section 22.56.215) or hillside design standards in the County General Plan Conservation and Open Space Element?

Impact Statement 4.5-5: Implementation of the Project would not conflict with the Hillside Management Area Ordinance or hillside design standards in the County General Plan Conservation and Open Space Element. Impacts with regard to this threshold would be less than significant.

The Project would require approximately 1,300,000 cubic yards of cut material, with all cut material being used as fill material within the site, for a total earthmoving volume of 2,600,000 cubic yards. The Project grading plan would balance the grading quantities such that no import or export of soil would be required. Grading of the site would include hillside slopes to remediate existing geologic conditions and to create stable building pads and internal roadways. Manufactured slopes would have an average grade of 2 horizontal to 1 vertical. The grading limits would extend off-site to the north and east to permit slope rounding and adequate transitions to natural terrain, encompassing an additional seven to eight acres. The grading plan for the Project would fully comply with County grading standards. Under Section 22.08.070 G of the County Code, a "Grading Project means any excavation or fill, or combination thereof, that exceeds 100,000 cubic yards (cy) requires a grading permit under the provisions of the Building Code, set out under Title 26 of the County Code". On-site grading would require a conditional use permit ("CUP") under Title 22.56 of the County Code to ensure consistency with the County's grading regulations and protection of the

environment. With the implementation of the requirements of Title 26 and the proposed CUP, the Project would be consistent with applicable regulations intended for the protection of the environment. Impacts with respect to grading regulations would be less than significant.

A large portion of the Project site is designated as Hillside Management Area. The purpose of the Hillside Management regulation (Title 22, Section 22.56.215 -Conditional Use Permits for Hillside Management and Significant Ecological Areas) is to protect resources contained within Hillside Management areas from incompatible development, which has the potential to result in environmental degradation. It is not the purpose of Section 22.56.215 to preclude development within these areas but to ensure, to the extent possible, that such development maintains and where possible enhances the natural topography, resources and amenities of the Hillside Management areas, while allowing for limited controlled development therein. This designation would constrain density of development and result in the preservation of approximately 165 acres (approximately 71 percent of the site) as permanent natural open space. Grading would be engineered in accordance with the Los Angeles County Grading Manual, and existing drainage channels would be ungraded. The portion of the Project site, which contains existing waterways, is designated as W (floodway plain), which does not allow habitable structures.

The percentage of the Project site located within the County Code's range of slope criteria for Hillside Management areas is identified in Section 4.9, Land Use and Planning, of this EIR. As described therein, approximately 54.8 acres are located within the Hillside Management area and approximately 147.1 acres are located within the Hillside Management (1/4 mile) area. Under the Hillside Management "1/4 mile" criteria, Hillside Management areas in the 25-50 percent slope range located within 1/4 mile of an existing urban land use category may have an increased density of one unit per acre versus the usual one unit per two acres in the typical Hillside Management areas. As described in Section 4.9, approximately 69 units would be allowed under the constrained Hillside Management designation. The Project site would allow a maximum of 95.1 units under the "low yield" density range and a maximum of 228.6 units under the "high yield" density range. Any exceedance of the "low yield" density range would require a CUP in accordance with Section 22.56.215. The mid-point density would be 161 units. To develop 75 units in the Hillside Management designated area (for a total of 102 units), six units would need to be transferred from the U-2 designation to the Hillside Management designation. Units transferred from U-2 to Hillside Management would involve lot numbers 4, 12, 15, 18, 21, and 100 of Vesting Tentative Tract No. 52796. Because the density transfer would not exceed the mid-point density and represents a small percentage of the overall Project, the proposed density transfer within the Hillside Management designation would be considered consistent with the objectives of Section 22.56.215 and would not have significant impact with respect to the objectives of this Code section. Project compliance with the Hillside Management Ordinance is described in greater detail in Section 4.9, Land Use and Planning, of this Draft EIR.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (GEO-1 through GEO-6) analyzed in this EIR section?

Impact Statement 4.5-6: The Project, combined with the related projects, would not result in substantial adverse effects related to geology and soils in the Project area. Cumulative geology and soils impacts would be less than significant and not cumulatively considerable.

The geographic scope for considering cumulative impacts related to geology and soils can be generally considered as the entire County. However, due to widely varying conditions on a site-by-site basis, the impacts related to geology and soils are generally site specific as there is typically minimal, if any, cumulative relationship between the development of a project and development within a larger cumulative area. As discussed above, the Project site is located within a seismically active area. The nearest active faults to the Project site, flexural-slip faults and the San Gabriel Fault, are located approximately four miles to the northeast. The nearest potentially active faults to the Project site are the Holser Fault and Del Valle Fault, located approximately three miles north and 5.4 miles northwest, respectively. All areas of the County are subject to potential effects of seismic activity associated with one or more active regional faults. Therefore, past, present, and future development projects all share similar seismic hazards. However, each project would be constructed in accordance with the California Building Code, which contains seismic design criteria, and relevant County ordinances and policies for construction in seismic hazard zones. In addition, projects would comply with project-specific geotechnical recommendations by certified geologists and geotechnical engineers. While there would be some level of seismic risk for all related projects, project-specific geotechnical evaluations and compliance with relevant seismic design criteria and regulations would ensure that such risks are reduced to the extent feasible, and, as such, cumulative impacts due to seismic risk are considered less than significant. For the Project, compliance with applicable regulations and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations and project design features would ensure that seismic risks are reduced to the extent feasible, and therefore, the Project's contribution to seismic risk would be less than significant and not cumulatively considerable.

Additionally, implementation of site specific LID requirements and BMPs—required of all development projects that would disturb at least one acre—would reduce soil erosion or loss of topsoil from the project sites. All planned projects in the vicinity of the Project, are subject to review under separate environmental documents that would require compliance with the local grading and building code requirements, which provide mitigation of erosion and seismic hazards to less than significant levels. With implementation of existing regulatory requirements, the Project would not substantially contribute to cumulative impacts regarding seismic hazards or related seismic events.

Development of the Project site would have geotechnical conditions and constraints similar to other planned projects in the area. Furthermore, similar geologic conditions exist in undeveloped areas and in most hillside areas of the County and Southern California. The primary geotechnical constraints that require mitigation are seismic-shaking fault rupture, slope stability, landslides, lateral spreading, subsidence, liquefaction hazards, soil expansion, and erosion. In general, mitigation of these potential hazards is achieved through commonly performed and widely accepted construction methods practiced through building and/or grading code compliance within the County (generally similar to those previously discussed above for the Project), as

well as development of site-specific design-level geotechnical evaluations, when necessary. With implementation of these mitigation methods, incorporation of recommendations in geotechnical reports, and compliance to applicable regulatory requirements similar to those required for the Project, significant geologic hazards, would not occur. Overall, with compliance with applicable regulatory requirements and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations and project design features, the Project would not substantially contribute to a significant cumulative impact. Further, all past, present, and future development projects must comply with the Hillside Management Area Ordinance of the Los Angeles County Code of Ordinances.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with applicable regulatory requirements and incorporation of the Geotechnical Evaluation and the 100-Scale Plan Review recommendations and project design features would ensure geology and soils impacts are less than significant.

4.6 GREENHOUSE GAS EMISSIONS

This section describes applicable Federal, State, and local regulations that address greenhouse gas (GHG) emissions and global climate change in California and the County of Los Angeles (County). Existing climate conditions and influences on global climate change are also described, and an analysis is provided to assess potential cumulative and Project-related contributions to global climate change. The analysis accounts for energy and resource conservation measures that have been incorporated into the Project and pertinent State-mandated GHG emission reduction measures. Calculation worksheets and assumptions used in the analysis are contained in Appendix F of this Draft EIR.

1. ENVIRONMENTAL SETTING

Regulatory Framework

Federal

The U.S. Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, reduction of methane and other non-carbon dioxide (CO_2) gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions. These programs (e.g., the Energy Star labeling system for energy-efficient products) play a substantial role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

In *Massachusetts v. Environmental Protection Agency* (Docket No. 05–1120), the U.S. Supreme Court held in April of 2007 that the USEPA has statutory authority under Section 2020 of the federal Clean Air Act (CAA) to regulate GHGs. The Court did not hold that the USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare.

The President signed Executive Order 13432 on May 14, 2007, directing the USEPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. Executive Order 13432 was codified into law by the 2009 Omnibus Appropriations Law signed on February 17, 2009. The order requires the U.S. Department of Transportation (DOT), the Department of Energy, and the USEPA to protect the environment with respect to greenhouse gas (GHG) emissions from motor vehicles, nonroad vehicles, and nonroad engines.

On May 19, 2009, the President announced a national policy for fuel efficiency and emissions standards in the U.S. auto industry. The policy is a collaboration between the USDOT and the USEPA. The federal standards apply to passenger cars and light-duty trucks built in model years 2012 through 2016. The rule surpasses the prior Corporate Average Fuel Economy (CAFE) standards and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO_2 per mile by model year 2016, based on USEPA calculation methods. Based on USDOT calculation methods, the standards set a requirement to

meet an average fuel economy of 34.1 mpg by 2016. Although this is lower than the 35.5 mpg, the USEPA method gives automakers credits for improvements to air-conditioning systems that also reduce leakage of refrigerants into the atmosphere or reduce fuel consumption while the system is operating. The improvements to these systems equate to an overall reduction of GHGs. These standards were formally adopted by the USEPA and USDOT on April 1, 2010.

In August 2012, the USEPA and USDOT adopted standards for model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, vehicles are required to achieve a combined standard of 41.7 mpg and 213 grams of CO_2 per mile. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[1]

On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the federal CAA. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO_2, methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA in fulfillment of the U.S. Supreme Court decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicles and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not themselves impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions

State

California Air Resources Board

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts. The SIP is required for the State to take over implementation of the Clean Air Act. CARB also has primary responsibility for adopting regulations to meet the State's goal of reducing GHG emissions to 1990 levels by 2020.

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

[1] *U.S. Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, August 2012, http://www.epa.gov/oms/climate/documents/420f12051.pdf. Accessed October 2014.*

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The Secretary of CalEPA is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Some of the agency representatives involved in the GHG reduction plan include the Secretary of the Business, Transportation and Housing Agency, the Secretary of the Department of Food and Agriculture, the Secretary of the Resources Agency, the Chairperson of CARB, the Chairperson of the California Energy Commission, and the President of the Public Utilities Commission. Representatives from these agencies comprise the California Climate Action Team (CCAT).

The CCAT provides biennial reports to the Governor and Legislature on the state of GHG reductions in the state as well as strategies for mitigating and adapting to climate change. The first CCAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in Executive Order S 3-05.[2] The 2010 CCAT Report, finalized in December 2010, expands on the policy-oriented 2006 assessment.[3] The new information detailed in the CCAT Report includes development of revised climate and sea-level projections using new information and tools that have become available in the last two years; and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts.

Assembly Bill 32, The Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32), focusing on reducing GHG emissions in California to 1990 levels by 2020. As required by AB 32, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 million metric tons of CO_2 equivalent ($MMTCO_2e$).[4] CARB also projected the state's 2020 GHG emissions under "business as usual" (BAU) conditions—that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 $MMTCO_2e$. Therefore, under this original projection, the state must reduce its 2020 BAU emissions by 28.4 percent in order to meet the 1990 target. CARB updated their 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulations that were recently adopted for motor vehicles and renewable energy.[5] CARB's revised 2020 BAU emissions estimate is 507 $MMTCO_2e$. Therefore, the emission reductions necessary to achieve the 2020 emissions target of 427 $MMTCO_2e$ would be 80 $MMTCO_2e$, or a reduction of GHG emissions by 15.8 percent.

AB 32 defines GHGs as CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further required that reduction measures be technologically feasible and cost effective. Under AB 32,

[2] *California Environmental Protection Agency, California Climate Action Team Report to the Governor and the Legislature, (2006).*

[3] *California Environmental Protection Agency, California Climate Action Team Report to the Governor and the Legislature, (2010).*

[4] *California Air Resources Board, Staff Report – California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, (2007).*

[5] *California Air Resources Board, Greenhouse Gas Inventory – 2020 Emissions Forecast, August 2013, http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Accessed October 2014.*

CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020. On or before June 30, 2007, CARB was required to publish a list of discrete early action GHG emission reduction measures that would be implemented to be made enforceable by 2010. In 2007, CARB published its Final Report for Proposed Early Actions to Mitigate Climate Change in California.[6] This report described recommendations for discrete early action measures to reduce GHG emissions as part of California's AB 32 GHG reduction strategy. Resulting from this are three new regulations proposed to meet the definition of "discrete early action greenhouse gas reduction measures," including the following: a low carbon fuel standard; reduction of HFC 134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture. CARB estimates that by 2020, the reductions from those three measures would range from 13 to 26 $MMTCO_2e$. Six additional early-action regulations were on October 25, 2007 that targeted: motor vehicles; auxiliary engines from docked ships; PFCs from the semiconductor industry; propellants in consumer products; automotive maintenance; and SF_6 from non-electricity sectors.

Assembly Bill 1493, Greenhouse Gas Emission Standards for Automobiles (Pavley Standards)

In response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493, enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. The State of California in 2004 submitted a request for a waiver from federal clean air regulations, which ordinarily preempts state regulation of motor vehicle emission standards, to allow the state to require reduced tailpipe emissions of CO_2. In late 2007, the USEPA denied California's waiver request. In early 2008, the state brought suit against USEPA related to this denial. In January 2009, the President directed the USEPA to assess whether its denial of the waiver was appropriate under the federal CAA. In June 2009, the USEPA granted California the waiver.

However, as discussed previously, the USEPA and USDOT have adopted federal standards for model year 2012 through 2016 light-duty vehicles. In light of the USEPA and USDOT standards, California—and states adopting California emissions standards—have agreed to defer to the proposed national standard through model year 2016. The 2016 endpoint of the federal and state standards is similar, although the federal standard ramps up slightly more slowly than required under the state standard. The state standards (called the Pavley standards) require additional reductions in CO_2 emissions beyond model year 2016 (referred to as Pavley Phase II standards). As noted above, the USEPA and USDOT have adopted GHG emission standards for model year 2017 through 2025 vehicles. These standards are slightly different from the Pavley Phase II standards, but the State of California has agreed not to contest these standards, in part due to the fact that while the national standard would achieve slightly fewer reductions in California, it would achieve greater reductions nationally. In November 2012, CARB adopted regulations that would allow manufacturers to comply with the 2017-2025 national standards to meet state law.

Executive Order S-01-07

Executive Order S-1-07, the Low Carbon Fuel Standard (issued on January 18, 2007), requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. Regulatory

[6] *California Air Resources Board, Proposed Early Actions to Mitigation Climate Change in California, (2007).*

proceedings and implementation of the Low Carbon Fuel Standard have been directed to CARB. The Low Carbon Fuel Standard has been identified by CARB as a discrete early action item in the adopted Climate Change Scoping Plan. CARB expects the Low Carbon Fuel Standard to achieve the minimum 10-percent reduction goal; however, many of the early action items outlined in the Climate Change Scoping Plan work in tandem with one another. To avoid the potential for double-counting emission reductions associated with AB 1493 (see previous discussion), the Climate Change Scoping Plan has modified the aggregate reduction expected from the Low Carbon Fuel Standard to 9.1 percent. In accordance with the Climate Change Scoping Plan, this analysis incorporates the modified reduction potential for the Low Carbon Fuel Standard. CARB released a draft version of the Low Carbon Fuel Standard in October 2008. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010; the Low Carbon Fuel Standard became effective on the same day.

Senate Bill 97

Senate Bill (SB) 97, enacted in 2007, amended the California Environmental Quality Act (CEQA) to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research (OPR) to develop revisions to the *State CEQA Guidelines* "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Resources Agency to certify and adopt these revised *State CEQA Guidelines* by January 2010. The revisions were completed March 2010 and codified into the California Code of Regulations and became effective within 120 days pursuant to CEQA. The amendments provide regulatory guidance for the analysis and mitigation of the potential effects of GHG emissions. The *State CEQA Guidelines* require:

- Inclusion of GHG analyses in CEQA documents;
- Determination of significance of GHG emissions; and,
- If significant GHG emissions would occur, adoption of mitigation to address significant emissions.

Senate Bill 375

SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions and was adopted by the State on September 30, 2008. Under SB 375, CARB is required, in consultation with the metropolitan planning organizations (MPOs) to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. On September 23, 2010, CARB adopted the vehicular GHG emissions reduction targets for the Southern California Association of Governments (SCAG), which is the MPO for the region in which the County is located. The target is a per capita reduction of 8 percent for 2020 and 13 percent for 2035 compared to the 2005 baseline. Of note, the proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the low carbon fuel standard regulations.

Under SB 375, the target must be incorporated within that region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., General Plans) are not required to be consistent with either the RTP or SCS. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Using growth forecasts and economic trends, the RTP/SCS provides a vision for

transportation throughout the region for the next 20 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The RTP/SCS exceeds the GHG emission-reduction targets set by CARB by achieving a 9 percent reduction by 2020 and 16 percent reduction by 2035 compared to the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by the USEPA.

Senate Bill 743

Senate Bill 743, as discussed in Section 4.12 *Traffic/Transportation* of this Draft EIR, will result in a change in the metrics for determining impacts relative to the transportation network through the development of new methodologies for traffic analyses for CEQA documents. This promotes the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promotes the development of multimodal transportation system, and provides clean, efficient access to destinations. Upon adoption, the new requirements intended under SB 743 will apply immediately within transit priority areas and high quality transit corridors and will apply statewide after January 1, 2016. The provisions to reduce greenhouse gas emissions discussed below compare with the future requirements of SB 743.

Title 24, Building Standards Code and CALGreen Code

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."[7] The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). When the CALGreen code went into effect in 2009, compliance through 2010 was voluntary. As of January 1, 2011, the CALGreen code is mandatory for all new buildings constructed in the state. The CALGreen code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.[8]

[7] *California Building Standards Commission, 2010 California Green Building Standards Code, (2010).*

[8] *California 2010 Green Building Standards code, California Code of Regulations Title 24, Part 11.*

Renewables Portfolio Standard

Senate Bill 1078 (SB 1078) (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolios Standard (RPS) to 33 percent renewable power by 2020. Pursuant to Executive Order S-21-09, CARB was also preparing regulations to supplement the RPS with a Renewable Energy Standard that will result in a total renewable energy requirement for utilities of 33 percent by 2020. But on April 12, 2011, Governor Jerry Brown signed SB X1-2 to increase California's RPS to 33 percent by 2020. Notably, unlike the prior 20-percent RPS, the current 33-percent RPS applies to Publicly Owned Utilities, such as Southern California Edison, which is the utility provider for the Santa Clarita Valley.

California Air Resources Board Anti-Idling Measure

In 2004, CARB adopted a control measure to limit commercial heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter (DPM) and other air contaminants.[9] The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. In general, it prohibits idling for more than 5 minutes at any location. While this measure is aimed primarily aimed at reducing air pollution, it has a co-benefit of limiting GHG emissions from unnecessary idling.

Regional

The Project is located in the South Coast Air Basin (Basin). Air pollutant emissions are regulated by the South Coast Air Quality Management District (SCAQMD). The SCAQMD is responsible for promoting and improving the air quality of the Basin. This is accomplished though air quality monitoring, evaluation, education, implementation of control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations, and by supporting and implementing measures to reduce emissions from motor vehicles.

After AB 32 was passed, SCAQMD formed a Climate Change Committee along with a Greenhouse Gases CEQA Significance Thresholds Working Group and the SoCal Climate Solutions Exchange Technical Advisory Group. On September 5, 2008, the SCAQMD Board approved the SCAQMD Climate Change Policy, which outlines actions the District will take to assist businesses and local governments in implementing climate change measures, decrease the agency's carbon emissions, and provide information to the public regarding climate change. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects). The aforementioned Working Group released draft guidance for land use development projects, which uses a tiered approach for determining significance. Projects that are exempt from CEQA or consistent with an approved local GHG reduction plan can be found to be less than significant. Tier 3, the primary tier the Board will use for determining significance, has a screening significance threshold designed to capture 90 percent of the land use development sector GHG emissions, based on

[9] *Calif. Code of Regulations, Title 13, Sec. 2485. See CARB, ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, April 2008, http://www.arb.ca.gov/regact/idling/idling.htm. Accessed October 2014.*

SCAQMD's review of OPR's database of CEQA projects and their respective level of GHG emissions.[10] The Working Group has been inactive since 2011.

Local

Los Angeles County General Plan 2035

The Draft County of Los Angeles General Plan 2035, January 2014, provides the fundamental basis for the County's land use and development policy, and addresses all aspects of development including public health, land use, community character, transportation, economics, housing, air quality, and other topics. The General Plan sets forth objectives, policies, standards, and programs for land use and new development, circulation and public access, and service systems for the community as a whole. Measures related to GHG emissions that would be applicable to the Project are contained in the Los Angeles County General Plan 2035 Land Use, Air Quality, and Public Services and Utilities elements and are specified below.[11,12,13] These measures will be implemented in connection with development of the Project. Although the General Plan is only in draft format, and the Project is not subject to the draft General Plan goals and policies that may change prior to adoption, the Project has been accounted for in regional population and transportation projections, and it is concluded that the Project would be consistent with County greenhouse gas policies, as drafted.

Goal LU 10 Development that utilize sustainable design techniques.

- **Policy LU 10.1** Encourage new development to employ sustainable energy practices, such as utilizing passive solar techniques and/or active solar technologies.
- **Policy LU 10.2** Support the design of developments that provide substantial tree canopy cover, and utilize light colored paving materials and reflective roofing materials to reduce the urban heat island effect.
- **Policy LU 10.3** Encourage development to optimize the solar orientation of buildings to maximize passive and active solar design techniques.
- **Policy LU 10.4** Encourage subdivisions to utilize sustainable design practices, such as maximizing energy efficiency through lot configuration, maximizing interconnectivity, and utilizing public transit.

[10] *South Coast Air Quality Management District, Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting #15, September 28, 2010, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2. Accessed October 2014.*

[11] *Los Angeles County Department of Regional Planning, 2014. Public Review Draft Los Angeles County General Plan 2035. http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter6_2014.pdf. Accessed, August, 2014.*

[12] *Los Angeles County Department of Regional Planning, 2014. Public Review Draft Los Angeles County General Plan 2035. http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter8_2014.pdf. Accessed, August 2014.*

[13] *Los Angeles County Department of Regional Planning, 2014. Public Review Draft Los Angeles County General Plan 2035. http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter13_2014.pdf. Accessed, August 2014.*

- **Policy LU 10.8** Encourage sustainable subdivisions that meet green neighborhood standards, such as Leadership in Energy and Environmental Design – Neighborhood Development (LEED-ND).

Goal AQ 3 Implementation of plans and programs to address the impacts of climate change.

- **Policy AQ 3.1** Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.
- **Policy AQ 3-4** Participate in local, regional, and state programs to reduce greenhouse gas emissions.
- **Policy AQ 3-5** Encourage maximum amounts of energy conservation in new development and municipal operations.
- **Policy AQ 3-6** Support and expand urban forest programs within the unincorporated areas.

Goal PS/F 2 Increased water conservation measures.

- **Policy PS/F 2.1** Implement water conservation measures, such as drought tolerant landscaping and restrictions on water used for landscaping.

Goal PS/F 5 Adequate disposal capacity and minimal waste and pollution.

- **Policy PS/F 5.6** Encourage the use and procurement of recyclable and biodegradable materials.
- **Policy PS/F 5.7** Encourage the recycling of construction and demolition debris generated by public and private projects.
- **Policy PS/F 5.9** Encourage the availability of trash and recyclables containers in new developments, public streets, and large venues.

Santa Clarita Valley Area Plan ("One Valley, One Vision") 2012

The Santa Clarita Valley Area Plan, "One Valley, One Vision", is a component of the Los Angeles County General Plan and provides focused goals, policies and maps to guide regulation and development within the unincorporated areas of the Santa Clarita Valley. Measures related to GHG emissions that would be applicable to the Project are contained in the Santa Clarita Valley Area Plan Greenhouse Gas Reduction Element and are specified below. These measures will be implemented in connection with development of the Project.[14]

Goal CO-8 Greenhouse Gas Reduction: Development designed to improve energy efficiency, reduce energy and natural resource consumption, and reduce emissions of greenhouse gases.

[14] *Los Angeles County Department of Regional Planning, 2012. Santa Clarita Valley Area Plan "One Valley, One Vision" 2012. http://planning.lacounty.gov/assets/upl/project/ovov_2012-ch_04_os.pdf. Accessed August 11, 2014.*

- **Objective CO-8.3** Encourage green building and sustainable development practices on private development projects, to the extent reasonable and feasible.
    - **Policy CO 8.3.1** Evaluate development proposals for consistency with the ordinances developed through the County's Green Building Program.
    - **Policy CO 8.3.2** Promote construction of energy efficient buildings through the certification requirements of the ordinances developed through the County's Green Building Program.
    - **Policy CO 8.3.4** Encourage new residential development to include on-site solar photovoltaic systems, or pre-wiring, in at least 50% of the residential units, in concert with other significant energy conservation efforts.
    - **Policy CO 8.3.6** Require new development to use passive solar heating and cooling techniques in building design and construction, which may include but are not limited to building orientation, clerestory windows, overhangs to shade doors and windows, and use of light colored roofs, shade trees and paving materials.
    - **Policy CO 8.3.7** Encourage the use of trees and landscaping to reduce heating and cooling energy loads, through shading of buildings and parking lots.
    - **Policy CO 8.3.8** Encourage energy-conserving heating and cooling systems and appliances, and energy-efficiency in windows and insulation, in all new construction.
    - **Policy CO 8.3.12** Reduce extensive heat gain from paved surfaces through development standards wherever feasible.
- **Objective CO-8.4** Reduce energy consumption for processing raw materials by promoting recycling and materials recovery by all residents and businesses throughout the community.
    - **Policy CO 8.4.4** Promote commercial and industrial recycling, including recycling of construction and demolition debris.
    - **Policy CO 8.4.5** Develop and implement for refuse and recycling receptacles and enclosures to accommodate recycling in all development.

Final Unincorporated Los Angeles County Climate Action Plan 2020

In July 2014, the County released the Final Unincorporated Los Angeles County Community Climate Action Plan 2020 (CCAP) to reduce the County's contribution to climate change impacts.[15] The County has set a target to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11 percent below 2010 levels by 2020. There is no specific numerical goal for new development projects. The CCAP describes the County's plan for achieving this goal, including specific

[15] *County of Los Angeles, Department of Regional Planning, Final Unincorporated Los Angeles County Community Climate Action Plan, July 2014. http://planning.lacounty.gov/assets/upl/project/ccap_draft-201407.pdf. Accessed August 2014.*

strategy areas for each of the major emissions sectors and provides details on 2010 and projected 2020 emissions in the unincorporated areas. The CCAP is a component of the Los Angeles County General Plan.

The CCAP analyzes specific actions that result in reduced emissions and lays out a plan for their use and implementation. It provides a mechanism for tracking and evaluating the County's progress and promotes development that is consistent with and supportive of the goals and policies of the General Plan. The CCAP also supports sustainable design and energy efficiency, as well as active and multi-modal transportation strategies to reduce VMT. Implementation of the measures in the CCAP would avoid the generation of more than 1.9 $MMTCO_2e$. Applicable strategies of the CCAP relevant to the Project are specified below. Although the CCAP is in draft form, and the CCAP does not apply to the Project because the CCAP has not yet been adopted by the County, the following draft CCAP measures will be implemented in connection with development of the Project:

- **BE-1:** Green Building Development – Encourage energy reductions in new development.
- **BE-3:** Solar Installations – Encourage solar installations for new and existing buildings.
- **LUT-1:** Bicycle Programs and Supporting Facilities – Expands and improves facilities for cyclists.
- **LUT-2:** Pedestrian Network – Improves pedestrian infrastructure to promote walking and access to transit.
- **LUT-6:** Land Use Design and Density – Promotes sustainability in land use design.
- **LUT-9:** Idling Reduction Goal – Limits idling time for heavy duty construction equipment.
- **SW-1:** Waste Diversion Goal – Reduces landfill waste by diverting at least 75% of waste (construction and operations).
- **LC-1:** Develop Urban Forests – Supports and expands urban forest programs.
- **LC-4:** Protect Conservation Areas – Encourages protection of current natural areas.

Los Angeles County Green Building Program

The County adopted the Green Building Program in 2008. This program included requirements for drought-tolerant landscaping, green building, and low impact development. In response to the CALGreen code, the County adopted Title 31 of the County's Code of Ordinances (the Los Angeles County Green Building Standards Code) in November 2013, which adopts by reference the CALGreen code except as changed or modified in Title 31. The County Department of Regional Planning is working on an ordinance to repeal the Green Building and Drought Tolerant Landscaping requirements from Title 22 (Planning and Zoning Code). Additionally, the ordinance will update the Green Building Program's tree requirements in order to increase shade to sidewalks and parking lots for human comfort, and to shade buildings to conserve energy used for air conditioning. The Project must comply with all applicable codes.

Existing Conditions

Greenhouse Gases

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however, data indicates that the current global

conditions differ from past climate changes in rate and magnitude. The current changes in global climate have been attributed to anthropogenic activities by the Intergovernmental Panel on Climate Change (IPCC).[16] The term GHG refers to gases that trap long-wave radiation or heat in the atmosphere, which heats the surface of the Earth. Without human intervention, the Earth maintains an approximate balance between the GHG emissions in the atmosphere and the storage of GHGs in the oceans and terrestrial ecosystems. GHGs are the result of both natural and anthropogenic activities. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions.

The Federal Government and State of California recognized that anthropogenic (human-caused) GHG emissions are contributing to changes in the global climate and those changes are having and will have adverse effects on the environment, the economy, and public health. While worldwide contributions of GHG emissions are expected to have widespread consequences, it is not possible to link particular changes to the environment of California or elsewhere to GHGs emitted from a particular source or location. In other words, emissions of GHGs have the potential to cause global impacts rather than local impacts. Increased concentrations of GHGs in the Earth's atmosphere have been linked to global climate change and such conditions as rising surface temperatures, melting icebergs and snowpack, rising sea levels, and the increased frequency and magnitude of severe weather conditions. Existing climate change models also show that climate warming portends a variety of impacts on agriculture, including loss of microclimates that support specific crops, increased pressure from invasive weeds and diseases, and loss of productivity due to changes in water reliability and availability. In addition, rising temperatures and shifts in microclimates associated with global climate change are expected to increase the frequency and intensity of wildfires.

State law defines GHGs to include the following compounds: CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6.[17] Scientists have established a Global Warming Potential (GWP) to gauge the potency of each GHG's ability to absorb and re-emit long-wave radiation. The GWP of a gas is determined using CO_2 as the reference gas with a GWP of 1 over 100 years. For example, a gas with a GWP of 10 is 10 times more potent than CO_2 over 100 years. The sum of each GHG multiplied by its associated GWP is referred to as carbon dioxide equivalents (CO_2e). The measurement unit CO_2e is used to report the combined potency of GHG emissions. Standard GWP values have been established for the GHGs defined by state law, such as CH_4, which has a GWP of 21, and N_2O, which has a GWP of 310.[18]

Greenhouse Gas Inventories

U.S. GHG Inventory

Total U.S. GHG emissions in 2012 were 6,526 MMT CO_2e.[19] Overall, total U.S. emissions have risen by 4.7 percent from 1990 to 2012. However, U.S. emissions decreased by 3.4 percent (227.4 MMT CO_2e) between

[16] *Intergovernmental Panel on Climate Change, Fourth Assessment Report: The Physical Science Basis, Summary for Policy Makers, (2007).*

[17] *State CEQA Guidelines Section 15364.5; Health and Safety Code, section 38505(g).*

[18] *In accordance with international and U.S. convention to maintain the value of the carbon dioxide 'currency', GHG emission inventories are calculated using the GWPs from the IPCC Second Assessment Report (Climate Change 1995: The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change, 1996).*

[19] *U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012, April, 2014. http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2014-Main-Text.pdf. Accessed, August 2014.*

2011 and 2012, due in large part to a decrease in carbon intensity of fuels consumed to produce electricity, a decrease in natural gas prices, a small decrease in transportation sector emissions, and a decreased demand for heating fuel due to warmer winter conditions. The primary GHG emitted as the result of human activities in the United States was CO_2, representing approximately 82.5 percent of total GHG emissions.[20] The largest source of CO_2, and of overall GHG emissions, was fossil fuel combustion. The residential and commercial end-use sectors accounted for approximately 20 percent and 18 percent, respectively, of CO_2 emissions from fossil fuel combustion in 2012.[21] Both sectors relied heavily on electricity for meeting energy demands, with 72 and 78 percent, respectively, of their emissions attributable to electricity consumption for lighting, heating, cooling, and operating appliances. The remaining emissions were due to the consumption of natural gas and petroleum for heating and cooking.

Emissions of CH_4, which have declined from 1990 levels, resulted primarily from enteric fermentation associated with domestic livestock, decomposition of wastes in landfills, and natural gas systems. Agricultural soil management and mobile source fossil fuel combustion were the major sources of N_2O emissions. The emissions of substitutes for ozone depleting substances and emissions of HFC-23 (trifluoromethane or CHF_3) during the production of HCFC-22 (chlorodifluoromethane or $CHClF_2$) were the primary contributors to aggregate HFC (hydrofluorocarbon) emissions. Electrical transmission and distribution systems accounted for most SF_6 (sodium hexafluoride) emissions, while PFC (perfluorocarbons) emissions resulted from semiconductor manufacturing and as a by-product of primary aluminum production.[22]

California GHG Inventory

Based on the 2012 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 458.7 $MMTCO_2e$ including emissions resulting from imported electrical power and 414.6 $MMTCO_2e$ excluding emissions related to imported power.[23] Between 1990 and 2012, the population of California grew by approximately 7.9 million (from 29.8 to 37.7 million).[24] This represents an increase of approximately 27 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from $773 billion in 1990 to $2.13 trillion in 2012 representing an increase of approximately 176 percent (about two and three-quarter times the 1990 gross state product).[25] Despite the population and economic growth, California's net GHG emissions only grew by approximately 7.5 percent. The CEC attributes the slow rate of growth to the success of California's renewable energy programs and its commitment to clean air and clean energy.[26] **Table 4.6-1**, *State of California GHG Emissions,* identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2012 (i.e., the most recent year in which data are available from CARB). As shown in

[20] *Ibid.*

[21] *Ibid.*

[22] *Ibid.*

[23] *California Air Resources Board, California Greenhouse Gas 2000-2012 Inventory by Scoping Plan Category - Summary, http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed May 2014.*

[24] *U.S. Census Bureau, Data Finders, http://www.census.gov/. 2009; California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, January 2011-2014, with 2010 Benchmark, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/. Accessed May 2014.*

[25] *California Department of Finance, Financial & Economic Data: Gross Domestic Product, California, http://www.dof.ca.gov/HTML/FS_DATA/LatestEconData/FS_Misc.htm. Accessed August 2014. Amounts are based on current dollars as of the date of the report (June 2014).*

[26] *California Energy Commission, Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004, (2006).*

Table 4.6-1

State of California Greenhouse Gas Emissions

Category	Total 1990 Emissions ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2012 Emissions ($MMTCO_2e$)	Percent of Total 2012 Emissions
Transportation	150.7	35%	167.4	36%
Electric Power	110.6	26%	95.1	21%
Commercial	14.4	3%	14.2	3%
Residential	29.7	7%	28.1	6%
Industrial	103.0	24%	89.2	19%
Recycling and Waste[a]	–	–	8.5	2%
High GWP/Non-Specified[b]	1.3	<1%	18.4	4%
Agriculture/Forestry	23.6	6%	37.9	8%
Forestry Sinks	-6.7		--[c]	--
Net Total [d]	**426.6**	**100%**	**458.7**	**100%**

[a] *Included in other categories for the 1990 emissions inventory.*
[b] *High GWP gases are not specifically called out in the 1990 emissions inventory.*
[c] *Revised methodology under development (not reported for 2012).*
[d] *Totals may not add up exactly due to rounding.*

Sources: California Air Resources Board, Staff Report – California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, (2007); California Air Resources Board, "California Greenhouse Gas 2000-2012 Inventory by Scoping Plan Category – Summary," http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed August 2014.

the table, the transportation sector is the largest contributor to statewide GHG emissions at 36 percent in 2012. California emissions are due in part to its large size and large population.

Unincorporated Los Angeles County GHG Inventory

Based upon the Unincorporated Los Angeles County Climate Action Plan 2020, estimated GHG emissions generated by community activities in the unincorporated areas in 2010 were approximately 7.9 $MMTCO_2e$ and represents per capita emissions of 7.5 metric tons of carbon dioxide equivalents ($MTCO_2e$) for each of the unincorporated areas' one million residents. Building energy use accounted for the largest source of emissions (49 percent). Transportation emissions from on- and off-road vehicles were the second largest source of emissions (42 percent). The third largest source of emissions was community waste generation (7 percent). The remaining sources are water conveyance and wastewater generation (2 percent), agriculture (0.4 percent), and stationary sources (0.02 percent).[27]

Existing Site

The Project site is primarily vacant and does not include sources of man-made GHG emissions. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland. As discussed in Section 2.0, Project Description, a total of 15 Coastal Live

[27] *County of Los Angeles, Department of Regional Planning, Final Unincorporated Los Angeles County Community Climate Action Plan, July 2014. http://planning.lacounty.gov/assets/upl/project/ccap_draft-201407.pdf. Accessed August 2014.*

Oaks are located on-site. The Project would remove one Coastal Live Oak (non-Heritage). In order to offset the removal of the one Coastal Live Oak, the Project would replace it with a minimum of two, 15-gallon replacement trees to be planted on the Project site. Vegetation sequesters CO2 via photosynthesis, which is a biochemical process in chlorophyll-containing plants and other organisms that removes CO2 from the atmosphere. The vegetation on the site is in transition as it recovers from a wildfire in 2010 in which much of the aboveground accumulated biomass was burned and thus converted to CO2 and released back into the atmosphere.Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties, for example, in predictions of local effects of climate change, occurrence of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the enormous complexity of the Earth's climate system, the uncertainty surrounding climate change may never be completely eliminated. Because of these uncertainties, there continues to be significant debate over which increased concentrations of GHGs are responsible for climate change, and over the appropriate actions to limit and/or respond to climate change.

The IPCC, in its Fifth Assessment Report (FAR), stated that "Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since AR4 (Fourth Assessment Report). It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century."[28] However, it is impossible to identify a single development project as the cause of future specific climate change impacts due to the global nature of climate change. Also in the FAR, the IPCC holds that the impacts of future climate change will vary across regions. While "large-scale climate events have the potential to cause very large impacts," the impacts of future climate change will be mixed across regions.

According to the CARB, "stronger scientific evidence continues to mount that document that the climate is changing and that its impacts are widespread and occurring now. This evidence includes rising temperatures, shifting snow and rainfall patterns, and increased incidence of extreme weather events."[29] Included in the Scoping Plan Update CARB discusses how climate change is already affecting California's infrastructure, natural resources, and communities, with even larger impacts projected in the future.

Heat: More extreme hot days, fewer cold nights, and shifts in water and growing cycles are already being observed. A marked increase in the number and duration of heat waves over the remainder of this century are predicted. Historically, in the populated areas of California, 14-day heat waves have occurred no more than once per year, with most locations not having any. By 2050, the frequency of 14-day heat waves is projected to increase up to tenfold. These increases will require a major effort to avoid heat-related death and illness, and will have a substantial effect on water and energy use. Increases in ambient air temperature

[28] *Intergovernmental Panel on Climate Change, Fifth Assessment Report, Introduction, 2013. http://www.climatechange2013.org/images/report/WG1AR5_Chapter01_FINAL.pdf. Accessed, August 2014.*

[29] *California Air Resources Board, First Update to the Climate Change Scoping Plan. Building on the Framework Pursuant to AB 32 The California Global Warming Solutions Act of 2006, (2014).*

and the frequency of extreme heat events will reduce the efficiency of conventional power plants burning fossil fuels, and increase peak electricity demand for major cities for air conditioning.[30]

Air Quality: Climate warming would slow progress toward attainment of ozone air quality standards and increase pollution control costs by increasing the potential for high ozone days. A study found that California could experience as many as six to thirty more days with ozone concentrations that exceed federal clean-air standards, depending on the extent of increased temperatures. In the southern California region, projected changes in ozone concentrations due to climate change in the year 2050 could increase by 9 to 18 parts per billion. These studies reflect the increased efficiency of ozone production in a warmer climate, the potential for increased biogenic VOC emissions driven by higher temperatures, and increased tropospheric ozone levels due to higher methane emissions.[31]

Wildfire Risks: Forest and wildland fires are becoming more frequent and intense, in part because dry seasons have started earlier and ended later. Since 1950, annual acreage burned in wildfires has been increasing in California. The three largest fire years occurred in the last ten years.[32] A recent study estimated future wildfire activity over the western United States during the mid-twenty-first century (2046–2065).[33] The results show that the fire season is expected to lengthen by 23 days in the warmer and drier climate at mid-century. Besides the damage to natural and managed systems, it was indicated that wildfire emissions would increase levels of summertime short-lived climate and air pollutants such as black carbon and $PM_{2.5}$.

Sea Level Rise: Sea levels have risen by six inches or more along much of the California coast over the last century, increasing erosion and pressure on the State's infrastructure, water supplies, and natural resources.[34] A 2012 report by the California Climate Change Center presented the state of climate affairs in California, and discussed their impacts on the State's natural resources.[35] The report noted that, in addition to sea level rise and associated seawater intrusions, possible flooding from increased storm runoff from mountain catchments, and storm surges threaten freshwater supplies in the Sacramento–San Joaquin River Delta. Flooding also threatens existing levees and many low-lying areas in the Delta and Central Valley.[36] Critical infrastructure such as roads and highways, ports, harbors, airports, wastewater treatment facilities, and power plants are located in low-lying coastal areas. Coastal habitats such as beaches, dunes, cliffs, and bluffs could be lost to erosion, while groundwater aquifers could be impacted more widely than today by

---

30 *Sheridan, S., and L. Kalkstein. 2011. A Spatial Synoptic Classification Approach to Projected Heat Vulnerability in California under Future Climate Change Scenarios. ARB contract #07-304. http://www.arb.ca.gov/research/apr/past/07-304.pdf.*

31 *Kleeman, M. J., S.-H. Chen, and R. A. Harley. 2010. Climate change impact on air quality in California: Report to the California Air Resources Board. http://www.arb.ca.gov/research/apr/past/04-349.pdf.*

32 *Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. Indicators of Climate Change in California. August 2013. http://www.oehha.ca.gov/multimedia/epic/2013EnvIndicatorReport.html. Accessed October 2014.*

33 *Yue, Xu et al. 2013. "Ensemble projections of wildfire activity and carbonaceous aerosol concentrations over the western United States in the mid-21st century." Atmospheric Environment 77: 767-780. http://acmg.seas.harvard.edu/publications/2013/Yue_ae_2013.pdf.*

34 *National Research Council Report, Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future,(2012).*

35 *California Energy Commission, California Climate Change Center, Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California, CEC-500-2012-007, (2012).*

36 *California Energy Commission, California Climate Change Center, Potential inundation due to rising sea levels in the San Francisco Bay region, CEC-500-2009-023-F, (2009).*

seawater intrusion, and wetlands and bays could face permanent inundation.[37] Sea level rise and increased storm frequency and intensity could also affect the operations of coastal power plants and coastal petroleum, natural gas, and transportation-related fuels infrastructure.

Agriculture: Agriculture is especially vulnerable to altered temperature, changing rainfall patterns, and new pest problems. Several scientific studies have been conducted that document the adverse impact that climate change is likely to have on crops and food supply. California agriculture is a nearly $40 billion dollar industry, and it generates at least $100 billion in related economic activity.[38]

Water Supply: Increased temperatures with decreased winter snowfall, as well as earlier snowmelt and greater rainwater runoff occurring earlier in the year, threaten the State's major water supply—the Sierra Nevada snowpack and timed downstream reservoir releases. Reduced snowpack puts greater pressure on the State's other major storage components, including water stored in reservoirs and groundwater aquifers. Lowering groundwater levels in turn create a greater energy demand to pump water from deeper wells and further reduce groundwater contribution to rivers and streams, exacerbating other impacts. Reduced Sierra Nevada snowpack and diminished runoff and water flows in late spring and summer will adversely affect hydroelectric generation and operation of the California State Water Project.[39]

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* provides a set of screening questions that address impacts with regard to air quality. These questions are as follows:

Would the Project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Section 15064.7 of the *State CEQA Guidelines* defines a threshold of significance as an identifiable quantitative, qualitative, or performance level of a particular environmental effect, compliance with which determines the level of impact significance. CEQA gives wide latitude to lead agencies in determining what impacts are significant and does not prescribe thresholds of significance, analytical methodologies, or specific mitigation measures. CEQA leaves the determination of significance to the reasonable discretion of the lead agency and encourages lead agencies to develop and publish thresholds of significance to use in determining the significance of environmental effects.

[37] *California Energy Commission, California Climate Change Center, Climate Change Scenarios for the San Francisco Region, CEC-500-2012-042, (2012).*

[38] *Jackson, L. E., et al. 2011. "Case study on potential agricultural responses to climate change in a California landscape." Climatic Change 109 (Suppl 1): S407–S427.*

[39] *California Energy Commission, Potential Impacts of Climate Change on California's Energy Infrastructure and Identification of Adaptation Measures, CEC-150-2009-001, (2009).*

For purposes of this analysis, the Project would have a significant impact on GHG and climate change if it would:

Threshold GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance? (refer to Impact Statement 4.6-1); and

Threshold GHG-2 Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? (refer to Impact Statement 4.6-2).

Greenhouse Gas Emission Thresholds (GHG-1)

The *State CEQA Guidelines* do not provide numeric or qualitative thresholds of significance for GHG emissions. However, AB 32 requires GHGs emitted in California to be reduced to 1990 levels by 2020 and 80% below 1990 levels by 2050. The Technical Advisory on CEQA and Climate Change from OPR suggests that, in absence of regulatory guidance or standards, lead agencies, such as the County, must undertake project-by-project analyses consistent with available guidance and current CEQA practice to ascertain project impacts under CEQA. In the latest *State CEQA Guidelines* amendments, which went into effect on March 18, 2010, OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The County has prepared a Draft CCAP which meets *State CEQA Guidelines* Section 15183.5 by: 1) quantifying all primary sectors of GHG emissions within the unincorporated areas for 2010 and 2020; 2) including a reduction target of at least 11% below 2010 levels, which is consistent with the recommendations in the AB 32 Scoping Plan for municipalities to support the overall AB 32 reduction targets; 3) analyzing community emissions for the unincorporated areas as a whole, including predicted growth expected by 2020; 4) including specific measures to achieve the overall reduction target; 5) including periodic monitoring of plan progress; and 6) submitting the CCAP to be adopted in a public process following compliance with CEQA. [40] Therefore, the Project is evaluated for consistency with: 1) the CCAP; and 2) the state goal of reducing GHG emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32.

Section 15183.5 of the *State CEQA Guidelines* provides that quantified reduction plans, such as the CCAP, "may be used in the cumulative impacts analysis of later projects." More specifically, "[l]ater project-specific environmental documents may tier from and/or incorporate by reference" the "programmatic review" conducted for the GHG reduction plan. "An environmental document that relies on a GHG reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project" (Section 15183.5). Because global climate change, by its very nature, is a global cumulative impact, an individual project's compliance with a qualifying GHG reduction plan may be enough to mitigate the project's incremental contribution to that cumulative impact to a level that is not "cumulatively considerable" (see *State CEQA Guidelines* Section 15064[h][3]).

[40] *Final Unincorporated Los Angeles County Community Climate Action Plan, County of Los Angeles, Department of Regional Planning, July 2014. http://planning.lacounty.gov/assets/upl/project/ccap_draft-201407.pdf. Accessed August 2014.*

The SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds in October 2008. SCAQMD proposed a tiered approach, whereby the level of detail and refinement needed to determine significance increases with a project's total GHG emissions. SCAQMD proposed a screening level of 3,000 $MTCO_2e$ per year for all land use projects, under which project impacts are considered "less than significant." The 3,000 metric ton screening level was intended "to achieve the same policy objective of capturing 90 percent of the GHG emissions from new mixed-use or all land use development projects in the residential/commercial sectors."[41] For projects with GHG emissions increases greater than 3,000 $MTCO_2e$ per year, the use of a percent emission reduction target was proposed to determine significance. This emission reduction target is a reduction below what is considered "business as usual." SCAQMD also proposes that projects amortize construction emissions over the lifetime of any given project, typically, but not always, defined as 30 years. Project construction emissions can be amortized by calculating total construction period emissions and dividing by the presumed lifetime of the Project. Because the County does not have a specific quantitative threshold, the SCAQMD threshold of 3,000 $MTCO_2e$ per year will be used for determining significance for the Project with respect to GHG-1, based on past County practice.

Greenhouse Gas Plan (GHG-2)

If a project implements design and operational strategies consistent with an applicable GHG reduction policy (i.e., Los Angeles County General Plan 2035, Santa Clarita Valley Area Plan ("One Valley, One Vision") 2012, and Final Unincorporated Los Angeles County Climate Action Plan 2020), it is considered to have a less than significant impact with respect to its contribution to the cumulative impact of global climate change. Although the Los Angeles County General Plan 2035 and CCAP have yet to be adopted, and the Project is not subject to the 2012 "One Valley, One Vision" Plan, these policies are the most appropriate, due to a lack of other applicable GHG reduction policy documents. These CCAP criteria are consistent with the Appendix G draft amendments discussed above and will be used for determining significance for the Project with respect to GHG-2.

Methodology

For the purposes of this EIR, total GHG emissions from the Project were quantified to determine whether the associated emissions would substantially help or hinder the State's ability to attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020). As stated above, the mandate of AB 32 demonstrates California's commitment to reducing GHG emissions and the state's associated contribution to climate change, without intending to limit population or economic growth within the state.

Construction

Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source emissions factors. The emissions are estimated using the California Emission Estimator Model (CalEEMod), which is an emissions inventory software program recommended by the SCAQMD. CalEEMod is based on outputs from OFFROAD2011 and EMFAC2011, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles and equipment. The output values used in this analysis were adjusted to be Project-specific based on equipment types and the

[41] *SCAQMD, Board Meeting, December 5, 2008, Agenda No. 31, Interim GHG Significance Threshold Proposal – Key Issues/Comments Attachment D.*

construction schedule. These values were then applied to the same construction phasing assumptions used in the criteria pollutant analysis (see Section 4.2, *Air Quality*, in this Draft EIR) to generate GHG emissions values for each construction year. CalEEMod outputs construction-related GHG emissions of CO_2, CH_4, N_2O, and CO_2e. The values are derived from factors published in the *2006 Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories*.[42] These values are then converted to metric tons for consistency. The CO_2e emissions are calculated for the construction period and future Project build-out conditions in order to estimate the net change in GHG emissions from Project construction and operation. In order to consider Project construction GHG emissions in the larger operational context, GHG emissions from construction have been amortized over a 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions).

Operations

The CalEEMod software was used to compile the GHG emissions estimates from mobile sources (vehicular traffic), energy demand (electricity, natural gas, landscape equipment), and water demand, and solid waste generation that would occur during long-term Project operations. Mobile source emissions are generated from vehicle traffic traveling to and from the Project site and were calculated using CalEEMod region-specific trip length assumptions and average daily trip estimates to arrive at vehicle miles traveled which are multiplied by applicable EMFAC2011 emission factors. The vehicle fleet mix was based on region-specific parameters in the CalEEMod model for an operational year of 2019.

With regard to energy usage, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Future fuel consumption rates are estimated based on specific square footage of the multi-family residential, retail, restaurant, and hotel land uses, as well as predicted water supply needs of the Project. Energy usage (off-site electricity generation and on-site natural gas consumption) for the Project is calculated within CalEEMod using the CEC's *California Commercial End Use Survey* (CEUS) data set, which lists energy demand by building type.[43] Since the data from the CEUS is from 2002, the CalEEMod software incorporates correction factors to account for compliance with the current Title 24 Building Standards Code.[44]

Water and wastewater generated from the Project require energy to supply, distribute and treat. The CalEEMod software uses the electrical intensity factors from the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*.[45] The emissions of GHGs associated with the wastewater treatment

---

[42] *Intergovernmental Panel on Climate Change, 2006 Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories, (2006).*

[43] *California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/Chart.aspx. Accessed December 2013.*

[44] *The current version of CalEEMod (version 2013.2.2) includes electricity and natural gas correction factors for the 2008 version of the Title 24 building standards. According to the CEC, the 2013 version of the Title 24 building standards use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 standards (see California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, May 2012, http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/2013_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed November 2014.*

[45] *California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).*

process emissions are also calculated using the CalEEMod software as described in the *California Emissions Estimator Model User's Guide, Appendix A*.[46]

Emissions from solid waste handling generated from the Project are also accounted for in the GHG emissions inventory. The GHG emission factors, particularly for CH_4, are based on the default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery).

Other sources of GHG emissions from operation of the Project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The CalEEMod tool uses landscaping equipment GHG emission factors from the CARB OFFROAD2011 model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.[47] The CalEEMod software estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

Emissions calculations for the Project include credits or reductions for the project design features and GHG reducing measures which are required by regulation, such as reductions in energy or water demand. Since the Project is subject to the LA County Green Building Ordinance and CALGreen standards, Project features will be incorporated consistent with these requirements.

Changes in CO_2 sequestration would be minimal and are not included in the calculations. As discussed previously, the Project would remove one Coastal Live Oak (non-Heritage) but would offset the removal with a minimum of two, 15-gallon replacement trees to be planted on the Project site. In addition, residential landscaping and compliance with the County's Tree Planting ordinance (Section 22.52.2130(C)(5)), which requires that each lot containing a single-family residence contain a minimum of two 15-gallon trees (at least one of which shall be from the drought-tolerant plant list), would generally offset existing chaparral, coastal sage scrub and non-native grassland on the developed portions of the site (as previously discussed, a wildfire in 2010 burned much of the aboveground biomass). Also, the Project would include the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site.

Project Design Features

The following project design features (PDFs) are reflected in the Project plans, and as such would be implemented as Project components. These features would prevent the occurrence and/or minimize the significance of potential GHG impacts. Energy efficiency and water saving measures, such as those below, would reduce the Project's demand for electricity used for lighting, household appliances, heating, ventilation, and air conditioning (HVAC) systems, and potable water supply, conveyance, treatment, and distribution. Reducing the Project's demand for electricity would reduce electricity-related GHG emissions from fossil-fuel combustion (e.g., natural gas, coal) from the local utility provider. These measures would have co-benefits of reducing the Project's operational air pollutant emissions (refer to **Section 4.2**, *Air Quality*, for a discussion of the Project's air pollutant emissions).

[46] *California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, (2013).*

[47] *California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003), http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed November 2013.*

PDF 6-1: Apply energy-saving technologies and components to reduce the Project's electrical use-profile including, but not limited to, the following:

- Optimizing the solar orientation of buildings to maximize passive and active solar design techniques;
- Installation of energy-efficient/low-energy light fixtures, energy efficient heating and cooling equipment, and energy-efficient appliances (e.g., ENERGY STAR-rated or equivalent).

PDF 6-2: Reduce the energy associated with heating and cooling loads through the use of such techniques as high-albedo (or reflective) roofing such as light-colored, "white" roofs. These roofing technologies increase the reflectance of the roofs, and thus reduce emissions from heating and cooling equipment. In addition, these roofs mitigate the heat island effect by reducing the absorption of solar energy.

PDF 6-3: Residential units shall be constructed with solar-ready rooftops that provide for the future installation of on-site solar photovoltaic (PV) or solar water heating (SWH) systems. The building design documents shall show an allocated Solar Zone and the pathway for interconnecting the PV or SWH system with the building electrical or plumbing system. The Solar Zone is a section of the roof that has been specifically designated and reserved for the future installation of a solar PV system, solar water heating system, and/or other solar generating system. The Solar Zone must be kept free from roof penetrations and have minimal shading.

PDF 6-4: Use commissioning to ensure that the Project's lighting, mechanical, heating, cooling, ventilation, and other energy and water-consuming systems are operating at their designed levels of efficiency (commissioning is a process to verify that the Project's energy-related systems are installed, calibrated, and perform according to Project requirements).

PDF 6-5: Residential landscaping shall comply with the County's Tree Planting ordinance (Section 22.52.2130(C)(5)), which requires that each lot containing a single-family residence contain a minimum of two 15-gallon trees, at least one of which shall be from the drought-tolerant plant list.

PDF 6-6: Utilize trees and other landscaping where appropriate to provide appropriate shading of the Project's structures and walkways, thereby reducing cooling energy demands and mitigating the heat island effect. Trees and other landscaping also act as a means to capture (sequester) CO_2 from the atmosphere.

PDF 6-7: Reduce water usage and demand by installing water efficient fixtures such as faucets, showerheads, and toilets meeting or exceeding the USEPA WaterSense® or equivalent standards. On-site reductions in water use would reduce the amount of energy necessary to transport the water to the site, and thus reduce the Project's water-related energy demand and associated emissions.

PDF 6-8: Comply with applicable provisions of the CALGreen code to increase water efficiency through the use of drought-tolerant landscaping and drought-tolerant, native, and fire-resistant trees to support water conservation efforts where feasible. Comply with

applicable provisions of the CALGreen code for the installation of low-water consumption irrigation systems.

PDF 6-9: Incorporate recyclable and biodegradable materials where appropriate and economically feasible. Materials may include, but are not limited to, gypsum board, insulation, steel, ceramic tile, countertops, trim, and carpet/carpet padding.

Analysis of Project Impacts

Threshold GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance.

Impact Statement 4.6-1: The Project would generate greenhouse gas emissions that would be less than the thresholds of significance. As a result, the Project would not, either directly or indirectly, result in GHG emissions that would have a significant impact on the environment and impacts would be less than significant.

Construction

Construction emissions are calculated using the CalEEMod model, which is an emissions estimation/evaluation model developed by SCAQMD to calculate emissions from land use development projects. The CalEEMod model outputs CO_2e emissions, which includes CH_4 and N_2O emissions estimated based on the emissions ratios for construction and industrial equipment.

Emissions of GHGs were calculated for each year of Project construction. Construction tends to occur over a short duration compared to the overall Project lifetime. In order to provide a representative equivalent annual emission rate, the SCAQMD recommends that construction GHG emissions be amortized over a period of 30 years and added to the annual operational emissions. To amortize construction emissions, GHG emissions due to construction are divided by the Project's presumed operating life (30 years). Consistent with SCAQMD methodology, total construction GHG emissions are amortized over 30 years to account for the Project life. Results of this analysis are presented in Table 4.6-2, Unmitigated Construction Greenhouse Gas Emissions. Due to the potential persistence of GHGs in the environment, impacts are based on annual emissions and, in accordance with SCAQMD methodology, construction-period impacts are not assessed independently of operational-period impacts, which are discussed in the next section.[48]

Operations

The Project would develop 102 single-family dwellings and associated supporting infrastructure including local roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. Therefore, the Project would result in net increases in long-term stationary and mobile source emissions. The long-term operational emissions from the Project were estimated using the CalEEMod model. Emissions of GHGs were calculated for the implementation of the Project for the full build-out year (2019). Amortized construction and operational GHG emissions were measured against the 3,000 metric ton screening threshold promulgated by SCAQMD for all land use or mixed use projects, as discussed previously. The

[48] *South Coast Air Quality Management District, Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #12, http://www.aqmd.gov/ceqa/handbook/GHG/2009/july29mtg/ghgmtg12.pdf. Accessed August 2013.*

Table 4.6-1

Unmitigated Construction Greenhouse Gas Emissions

Emission Source	GHG Emissions [a] MTCO2e (Metric Tons)
Construction Emissions for 2015	178
Construction Emissions for 2016	1,079
Construction Emissions for 2017	1,120
Construction Emissions for 2018	1,149
Construction Emissions for 2019	553
Total [b]	**4,082**
Construction (Amortized – 30 years)	**136**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix F.*

[b] *Totals may not add up exactly due to rounding.*

Source: PCR Services Corporation, 2015

Project would comply with the Los Angeles County Green Building Program, which incorporates the CALGreen Code requirements, the CCAP, and the Los Angeles County General Plan. Incorporated PDFs, discussed above, are consistent with applicable mandatory measures of these plans. The Project would comply with CALGreen through incorporating strategies, which include installation of low-flow water fixtures and other energy and resource conservation measures. The heating, ventilation, and air conditioning (HVAC) system shall be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain.

GHG emissions resulting from vehicle, water conveyance, waste disposal, electricity, and natural gas usage associated with operation of the proposed residential uses plus amortized construction GHG emissions are provided in in **Table4.6-3**, *Unmitigated Operational Greenhouse Gas Emissions*. As shown, the Project would not exceed the threshold of 3,000 $MTCO_2e$ per year. The GHG emissions resulting from Project construction and operations would not directly or indirectly have a significant impact on the environment based on the above mentioned threshold. Therefore, the Project would result in a less than significant impact with regard to GHG emissions.

Threshold GHG-2: Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Statement 4.6-2: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, the construction and operation of the Project would result in a less than significant impact.

In support of AB 32, the State has promulgated specific laws aimed at GHG reductions applicable to the Project. The County has adopted a CCAP and Green Building Program to further this effort at the regional

Table 4.6-2

Unmitigated Operational Greenhouse Gas Emissions

Emission Source	Operational Year 2019 GHG Emissions [a] $MTCO_{2e}$ (Metric Ton CO_2e/Year)
Proposed Project Operational	
On-Road Mobile Sources	1,338
Area (hearths, landscaping equipment)	26
Stationary (pump generators)	3
Electricity	203
Natural Gas	130
Water Conveyance	132
Waste	29
Subtotal [b]	**1,861**
Construction (Amortized)	136
Total [b]	**1,997**
Threshold of Significance	3,000
Exceed Threshold?	**No**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in Appendix F.*

[b] *Totals may not add up exactly due to rounding.*

Source: PCR Services Corporation, 2015

level. The Project is committed to meeting the mandatory measures of the Green Building Program and CCAP that are applicable to the Project. Consistent with the Green Building Program, the Project would comply with mandatory and certain voluntary CALGreen measures through incorporating strategies, which include pre-installation or installation of electric vehicle supply equipment (EVSE) for dwelling units pursuant to CALGreen Appendix A4 (Residential Voluntary Measures), installation of ENERGY STAR-rated appliances, providing the required minimum building roof area for solar collectors or photovoltaic panels, installation of low-water consumption irrigation systems, low-flow toilets, low-flow faucets, and low-flow showers, and other energy and resource conservation measures. In addition, the Project would install HVAC systems sized and designed to meet or exceed the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain.

The Project's consistency with GHG reduction plans and policies applicable to the Project are discussed in detail below. In summary, the Project would be consistent with applicable policies of the County of Los Angeles General Plan and "One Valley, One Vision" Plan and the CCAP. The CCAP itself is used by the County to demonstrate conformity with the State's efforts to reduce GHG emissions. As such, the Project would be consistent with the AB 32 goal of reducing statewide GHG emissions to 1990 levels by 2020. The Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs; therefore, impacts would be less than significant. As such, no mitigation is required.

County of Los Angeles General Plan and Santa Clarita Valley Area Plan

The County's Draft General Plan and 2012 Santa Clarita Valley Area Plan contain goals, objectives, and policies that are relevant to GHG emissions reduction. As discussed below in **Table 4.6-4**, *Project Consistency with the County of Los Angeles General Plan and Santa Clarita Valley Area Plan ("One Valley, One Vision" Plan)* and within **Section 4.9** *Land Use and Planning*, the Project would be consistent with the relevant and applicable goals and policies of the General Plan and Santa Clarita Valley Area ("One Valley, One Vision") Plan pertaining to GHGs. The 1990 Santa Clarita Valley Area Plan did not contain policies directly pertaining to GHGs.

Table 4.6-3

Project Consistency with County of Los Angeles Draft General Plan and Santa Clarita Valley Area Plan ("One Valley, One Vision" Plan)

Policy	Consistency Analysis
Draft General Plan Air Quality Element	
Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.	**Consistent.** As discussed above and shown in the table below, the Project is consistent with the CCAP and will not interfere with the County attaining its climate change and GHG emission reduction goals.
Policy AQ 3-4: Participate in local, regional, and state programs to reduce greenhouse gas emissions.	**Consistent.** As discussed above, and shown in this table and the following table (Table 4.6-5), the Project would be consistent with local, regional, and state programs to reduce greenhouse gas emissions.
Policy AQ 3-5: Encourage maximum amounts of energy conservation in new development and municipal operations.	**Consistent.** The Project would incorporate energy-saving technologies and components to reduce the Project's electrical use-profile, such as the installation of energy-efficient/low-energy light fixtures, energy efficient heating and cooling equipment, energy-efficient appliances (e.g., ENERGY STAR-rated or equivalent), and water-efficient fixtures.
Policy AQ 3-6: Support and expand urban forest programs within the unincorporated areas.	**Consistent.** The Project would include the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. The Project would incorporate an open space linkage between Pico Creek and Upper Wickham Canyon after realignment of Wickham Canyon. The Canyon would be planted with additional native trees and shrubs. The Project would also incorporate landscaping and vegetation on residential lots.
Santa Clarita Valley Area Plan "One Valley, One Vision" Greenhouse Gas Reduction Element	
Policy CO 8.3.1: Evaluate development proposals for consistency with the ordinances developed through the County's Green Building Program.	**Consistent:** The Project would comply with the ordinances in the County's Green Building Program.

Table 4.6-4 (Continued)

Project Consistency with County of Los Angeles General Plan and Santa Clarita Valley Area Plan ("One Valley, One Vision" Plan)

Policy	Consistency Analysis
Policy CO 8.3.2: Promote construction of energy-efficient buildings through the certification requirements of the ordinances developed through the County's Green Building Program.	**Consistent:** The Project would comply with applicable provisions of the County's Green Building Program to increase energy efficiency in the single-family dwellings. Energy-efficiency measures would include, but are not limited to, the installation of energy-efficient/low-energy light fixtures, energy efficient heating and cooling equipment, energy-efficient appliances (e.g., ENERGY STAR-rated or equivalent), and water-efficient fixtures.
Policy CO 8.3.4: Encourage new residential development to include on-site solar photovoltaic systems, or pre-wiring, in at least 50% of the residential units, in concert with other significant energy conservation efforts.	**Consistent.** The Project would consist of construction of 102 single-family dwellings, which would be constructed with solar-ready rooftops that allow for the future installation of on-site solar PV or SWH systems.
Policy CO 8.3.6: Require new development to use passive solar heating and cooling techniques in building design and construction, which may include but are not limited to building orientation, clerestory windows, overhangs to shade doors and windows, and use of light-colored roofs, shade trees and paving materials.	**Consistent.** The Project would comply with applicable provisions of the County's Green Building Program to increase energy efficiency, water efficiency, and reduce resource consumption. This may include, but is not limited to, building orientation, light-colored roofs and paving materials, shade trees, overhangs, etc.
Policy CO 8.3.7: Encourage the use of trees and landscaping to reduce heating and cooling energy loads, through shading of buildings and parking lots.	**Consistent.** The Project would comply with applicable provisions of the County's Green Building Program to increase energy efficiency, water efficiency, and reduce resource consumption. This may include, but is not limited to building orientation, light-colored roofs and paving materials, shade trees, overhangs, etc.
Policy CO 8.3.8: Encourage energy-conserving heating and cooling systems and appliances, and energy-efficiency in windows and insulation, in all new construction.	**Consistent.** The Project would comply with applicable provisions of the County's Green Building Program to increase energy efficiency, water efficiency, and reduce resource consumption. This may include, but is not limited to HVAC systems, ENERGY STAR appliances, energy-efficient windows and insulation, etc.
Policy CO 8.3.12: Reduce extensive heat gain from paved surfaces through development standards wherever feasible.	**Consistent.** The Project would comply with applicable provisions of the County's Green Building Program to increase energy efficiency, water efficiency, and reduce resource consumption. This may include, but is not limited to building orientation, light-colored roofs and paving materials, shade trees, overhangs, etc. The Project would also include the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site.

Table 4.6-4 (Continued)

Project Consistency with County of Los Angeles General Plan and Santa Clarita Valley Area Plan ("One Valley, One Vision" Plan)

Policy	Consistency Analysis
Policy CO 8.4.4: Promote commercial and industrial recycling, including recycling of construction and demolition debris.	**Consistent.** The Project would comply with applicable provisions of the CALGreen code to reduce resource consumption. The Project would incorporate recyclable and biodegradable materials where appropriate and economically feasible. Materials may include, but are not limited to, gypsum board, insulation, steel, ceramic tile, countertops, trim, and carpet/carpet padding. The Project would also recycle, reuse, and/or divert 70 percent of non-hazardous construction waste as required by the Los Angeles County Green Building Program.
Policy CO 8.4.5: Develop and implement for refuse and recycling receptacles and enclosures to accommodate recycling in all development.	**Consistent.** As stated in the Initial Study, the Project would provide recycling containers and appropriate storage areas for future residents to decrease the Project's solid waste disposal needs.

Source: PCR Services Corporation (2014); County of Los Angeles General Plan Update 2035 (2014), Santa Clarita Valley Area Plan "One Valley, One Vision" (2012).

Community Climate Action Plan

The CCAP, which serves as the County's policy document for GHG emissions reductions, is still a draft document. However, the Board of Supervisors indicated its intent to approve the CCAP, in its current form, at its meeting of March 24, 2015, although a final consent date has not been set. The CCAP includes specific strategy areas for each of the major emissions sectors, and provides details on the 2010 and projected 2020 emissions in the unincorporated areas. The CCAP is a component of the Los Angeles County General Plan. The actions in the CCAP are priority actions and intended for near-term implementation, such that the County can achieve its GHG reduction goal for 2020 for the unincorporated areas of the County. As discussed below in **Table 4.6-5**, *Project Consistency with the Community Climate Action Plan*, the Project would be consistent with the relevant and applicable goals and policies of the CCAP pertaining to GHGs.

Table 4.6-4

Project Consistency with Community Climate Action Plan [a]

Policy	Consistency Analysis
Green Building and Energy Element	
BE-1: Green Building Development: Promote and incentivize at least Tier 1 voluntary standards within CALGreen for all new residential and nonresidential buildings. Develop a heat island reduction plan and facilitate green building development by removing regulatory and procedural barriers.	**Consistent.** The Project would comply with applicable provisions of the County's Green Building Program to increase energy efficiency, water efficiency, and reduce resource consumption. The Project would consist of construction of 102 single-family dwellings, which would be constructed with solar-ready rooftops that allow for the future installation of on-site solar PV or SWH systems and would include the installation of energy-efficient appliances

Table 4.6-5 (Continued)

Project Consistency with Community Climate Action Plan [a]

Policy	Consistency Analysis
	(e.g., ENERGY STAR-rated appliances or equivalent). Consistent with Tier 1 voluntary standards, the Project would reuse onsite displaced topsoil from cut and fill activities (the site would be balanced with no export or import), recycle, reuse, and/or divert 70 percent of non-hazardous construction waste, use light-colored or reflective roofing materials where appropriate and applicable to reduce the heat island effect from low-albedo roof surfaces, and reduce potable water use for landscaped areas via the installation of water-efficient irrigation systems and drought-tolerant landscaping and drought-tolerant, native, and fire-resistant trees.
BE-3: Solar Installations: Promote and incentivize solar installations for new and existing homes, commercial buildings, carports and parking areas, water heaters, and warehouses.	**Consistent.** The Project would consist of construction of 102 single-family dwellings, which would be constructed with solar-ready rooftops that allow for the future installation of on-site solar PV or SWH systems.
Land Use and Transportation Element	
LUT-1: Bicycle Programs and Supporting Facilities: Construct and improve bicycle infrastructure to increase biking and bicyclist access to transit and transit stations/hubs. Increase bicycle parking and "end-of-trip" facilities offered through the unincorporated County.	**Consistent:** The Project proposes roads wide enough to accommodate bicyclists and automobiles. The Project would preserve approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site which could be used for hiking and biking.
LUT-2: Pedestrian Network: Construct and improve pedestrian infrastructure to increase walking and pedestrian access to transit and transit stations/hubs.	**Consistent:** The Project would construct pedestrian infrastructure to allow pedestrian access to the nearest transit stop, currently located about a mile away near the intersection of Stevenson Ranch Parkway and Chase Avenue.
LUT-6: Land Use Design and Density: Promotes sustainability in land use design including diversity of urban and suburban developments.	**Consistent:** The Project would be consistent with the growth outlined in the "One Valley, One Vision" plan and would therefore consistent with land use design policies.
LUT-9: Idling Reduction Goal: Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications	**Consistent.** The Project would adhere to idling limitations consistent with CARB requirements.
Waste Reduction, Reuse, and Recycling Element	
SW-1: Waste Diversion Goal: Adopt a waste diversion goal to comply with all state mandates to divert at least 75 percent of waste (construction and operation) from landfill disposal by 2020.	**Consistent.** The Project would comply with applicable provisions of the County's Green Building Program to reduce resource consumption. The Project would also recycle, reuse, and/or divert 70 percent of non-hazardous construction waste.
Land Conservation and Tree Planting Element	

Table 4.6-5 (Continued)

Project Consistency with Community Climate Action Plan [a]

Policy	Consistency Analysis
LC-1: Develop Urban Forests: Supports and expands urban forest programs.	**Consistent.** The Project would include landscaping and tree plantings consistent with the County's Green Building Ordinance. Landscaping will utilize drought-tolerant, native, and fire-resistant trees to support water conservation efforts where feasible. In accordance with the County's Tree Planting ordinance (Section 22.52.2130(C)(5)), the Project would plant a minimum of two 15-gallon trees for each lot containing a single-family residence (at least one of which shall be from the drought-tolerant plant list).
LC-4: Protect Conservation Areas: Encourages protection of current natural areas.	**Consistent.** The Project would include the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. The Project would incorporate an open space linkage between Pico Creek and Upper Wickham Canyon after realignment of Wickham Canyon. The Canyon would be planted with additional native trees and shrubs.

[a] *Final Unincorporated Los Angeles County Community Climate Action Plan, County of Los Angeles, Department of Regional Planning, July 2014. http://planning.lacounty.gov/assets/upl/project/ccap_draft-201407.pdf. Accessed August 2014.*

Source: PCR Services Corporation (2014); County of Los Angeles Final Unincorporated Los Angeles County Community Climate Action Plan (2014).

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (GHG-1 and GHG-2) analyzed in this EIR section?

Impact Statement 4.6-3: The Project combined with the related projects would not result in substantial adverse effects related to greenhouse gas emissions in the Project area. Cumulative greenhouse gas impacts would be less than significant and not cumulatively considerable.

Emitting GHGs into the atmosphere is not itself an adverse environmental effect. Rather, it is the increased accumulation of GHGs in the atmosphere that may result in anthropogenic (i.e., human-induced) global climate change. The resultant consequences of that climate change can cause adverse environmental effects. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is not possible to predict the specific impact, if any, to global climate change from one project's relatively small incremental increase in emissions.

Although AB 32 sets statewide targets for future GHG emissions, the Scoping Plan and other implementing tools of the law are clear that the reductions are not expected to occur uniformly from all sources or sectors. **Table 4.6-6,** *GHG Reduction Strategies* contains a list of numerous GHG-reducing strategies potentially applicable to the Project, the identified related projects, and future development similar in scope and location. Included are the regulations or guidelines from which the strategies were developed. The Project-level analysis above highlights the manner by which the Project intends to meet many of these strategies.

Table 4.6-5

GHG Reduction Strategies

Source	Description	Demonstration of Project Consistency
AB 1493 (Pavley Regulations)	Reduces greenhouse gas emissions in new passenger vehicles from 2012 through 2016. Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020	**Consistent.** This measure applies to all new vehicles and the Project would not conflict with its implementation.
SB 1368	Establishes an emissions performance standard for power plants within the State of California.	**Consistent.** Southern California Edison-provided power is subject to the performance standards. The Project would not conflict with the implementation of this measure.
Low Carbon Fuel Standard	Establishes protocols for measuring life-cycle carbon intensity of transportation fuels and helps to establish use of alternative fuels.	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The Project would not conflict with the implementation of this measure. Construction and operational vehicles association with the Project would utilize low carbon transportation fuels as required under this measure.
CALGreen Requirements	Comply with applicable site development planning and design measures such as bicycle parking and light pollution reduction.	**Consistent.** Project would be consistent with this requirement via compliance with County ordinance and/or the CALGreen code.
	Indoor water usage must be reduced by 20 percent compared to current California Building Code Standards for maximum flow.	**Consistent.** Project would be consistent with this requirement via compliance with County ordinance and/or the CALGreen code.
	Wastewater generation shall be reduced.	**Consistent.** Project would be consistent with this requirement via compliance with County ordinance and/or the CALGreen code.
	Comply with material conservation and resource efficiency measures including applicable weather resistance and moisture management measures.	**Consistent.** Project would be consistent with this requirement via compliance with County ordinance and/or the CALGreen code.
	Comply with VOC emissions limits for carpet systems, composite wood products, and flooring.	**Consistent.** Project would be consistent with this requirement via compliance with CARB/SCAQMD rules and regulations and/or the CALGreen code.
	Requires a minimum of 50 percent recycle or reuse of nonhazardous construction and demolition debris.	**Consistent.** Project would be consistent with this requirement via compliance with County ordinance and/or the CALGreen code.

Table 4.6-6 (Continued)

GHG Reduction Strategies

Source	Description	Demonstration of Project Consistency
CALGREEN Voluntary Actions	Reduce diesel-fueled commercial motor vehicle idling.	**Consistent.** Project is committed to implementing. Construction trucks would comply with CARB's anti-idling measure.
Climate Action Team	Achieve California's 50 percent waste diversion mandate (Integrated Waste Management Act of 1989) to reduce GHG emissions associated with virgin material extraction.	**Consistent.** Project would be consistent with this CALGreen requirement.
	Implement efficient water management practices and incentives, as saving water saves energy and GHG emissions.	**Consistent.** Project would be consistent with this CALGreen requirement.
	The California Energy Commission updates building energy efficiency standards that apply to newly constructed buildings and additions to and alterations to existing buildings. Both the Energy Action Plan and the Integrated Energy Policy Report call for ongoing updating of the standards.	**Consistent.** CALGreen Code implements this goal, and the Project would be consistent with the requirements.
	Reduce GHG emissions from electricity by reducing energy demand. The California Energy Commission updates appliance energy efficiency standards that apply to electrical devices or equipment sold in California. Recent policies have established specific goals for updating the standards; new standards are currently in development.	**Consistent.** CALGreen Code implements this goal, and the Project would be consistent with the requirements.
	Apply strategies that integrate transportation and land-use decisions, including but not limited to promoting jobs/housing proximity, high-density residential/commercial development along transit corridors, and implementing intelligent transportation systems.	**Consistent.** Project is located in proximity to existing residential and commercial businesses, which would minimize trip lengths and associated emissions.

Source: PCR Services Corporation, 2014

As shown in Table 4.6-6, there exist numerous options for related project developers to reduce their contribution to city-, county-, and State-wide GHG emissions, while helping to meet the region's future housing, jobs, and infrastructure needs. However, it is not possible at this time to accurately quantify GHG emissions expected from the related projects or the GHG reductions anticipated from the above-listed strategies. Because of the complex physical, chemical and atmospheric mechanisms involved in global climate change, there is no basis for concluding that an emissions increase resulting from the Project and the related projects could actually cause a measurable increase in global GHG emissions sufficient to force global climate change. In addition, emissions models used for Project-level evaluations do not fully reflect

improvements in technology and other reductions in GHG emissions that are likely to occur pursuant to State regulations, such as AB 1493, SB 1368, AB 32, and Executive Order S-3-5, as well as future federal and/or state regulations. Therefore, it is not possible or meaningful and would be speculative to calculate emissions from each of the identified related projects and compare that with a numeric threshold or reduction target.

Understanding of the fundamental processes responsible for global climate change has improved over the past decade, and predictive capabilities are advancing. As discussed above, however, there remain significant scientific uncertainties, for example, in predictions of local effects of climate change, occurrence of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system, the uncertainty surrounding climate change may never be completely eliminated. Because of these uncertainties, there continues to be significant debate as to the extent to which increased concentrations of GHGs have caused or will cause climate change, and with respect to the appropriate actions to limit and/or respond to climate change. In addition, it is not possible to label a single development project as the cause of future specific climate change impacts.

Nonetheless, as discussed previously under the analysis of Project impacts, the Project would be consistent with the State's goals, resulting in a GHG emission profile that is below the most stringent thresholds, and includes implementation of the mandatory and many optional GHG-reducing strategies. Therefore, the Project would not contribute considerably to cumulatively significant global climate change and impacts would be less than significant. As such, no mitigation is required.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Construction and operational GHG emissions from the Project would not exceed the threshold of significance. In addition, the Project would be consistent with the County's Green Building Program and CCAP. With implementation of the proposed PDFs, Project construction and operation would result in less than significant impacts and mitigation measures are not required.

This page intentionally blank.

4.7 HAZARDS AND HAZARDOUS MATERIALS

This section provides an analysis of potential impacts associated with hazards and hazardous materials that could occur with implementation of the Project. The analysis considers the potential impacts associated with the historical uses of the Project site and the transport, use, or disposal of hazardous materials that could occur during construction and operation of the Project. Further, the analysis also considers potential impacts from wildland fires and potential conflicts with adopted emergency response and emergency evacuation plans. Information in this section is in part based on information and findings obtained in the following documents:

- *Phase I Environmental Site Assessment* (herein referred to as the "Phase I ESA"), prepared by Advantage Environmental Consultants, LLC, March 2014; and
- *Fuel Modification Plan* (included as **Figure 4.7-1**, *Fuel Modification Plan, in this EIR section)*, prepared by Landscape Development, Inc., June 2014; and
- *Report of Subsurface Investigation* (herein referred to as the "Subsurface Investigation"), prepared by Advantage Environmental Consultants, LLC, April 2015.

A copy of the Phase I ESA and Subsurface Investigation are included in Appendix G of this EIR.

The term "hazardous material" can have varying definitions for different regulatory programs. For the purpose of the following analysis, the term "hazardous materials" refers to both hazardous materials and hazardous waste. The California Health and Safety Code Section 25501(m) defines hazardous materials as follows:[1]

> *"Hazardous material means any material that because of its quantity, concentrations, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include but are not limited to hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or environment."*

[1] *California Health and Safety Code. Chapter 6.95 Hazardous Materials Release Response Plans and Inventory. Article 1, Section 25501 (m).*

1. ENVIRONMENTAL SETTING

Regulatory Framework

Hazardous Materials

Federal

U.S. Environmental Protection Agency (USEPA) Regulations

The USEPA's mission is to protect human health and the environment. The USEPA takes action to reduce risks associated with exposure to chemicals in commerce, indoor and outdoor environments, and products and food. The USEPA continues to oversee the introduction and use of pesticides, improve their Integrated Risk Information System (IRIS) program, reduce radon risks, identify and address children's health risks in schools and homes, and improve chemical management practices. Oversight of chemical storage and manufacturing in coordination with their interagency partners remains a key focus of the USEPA, as well as efforts to reduce urban air toxics.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

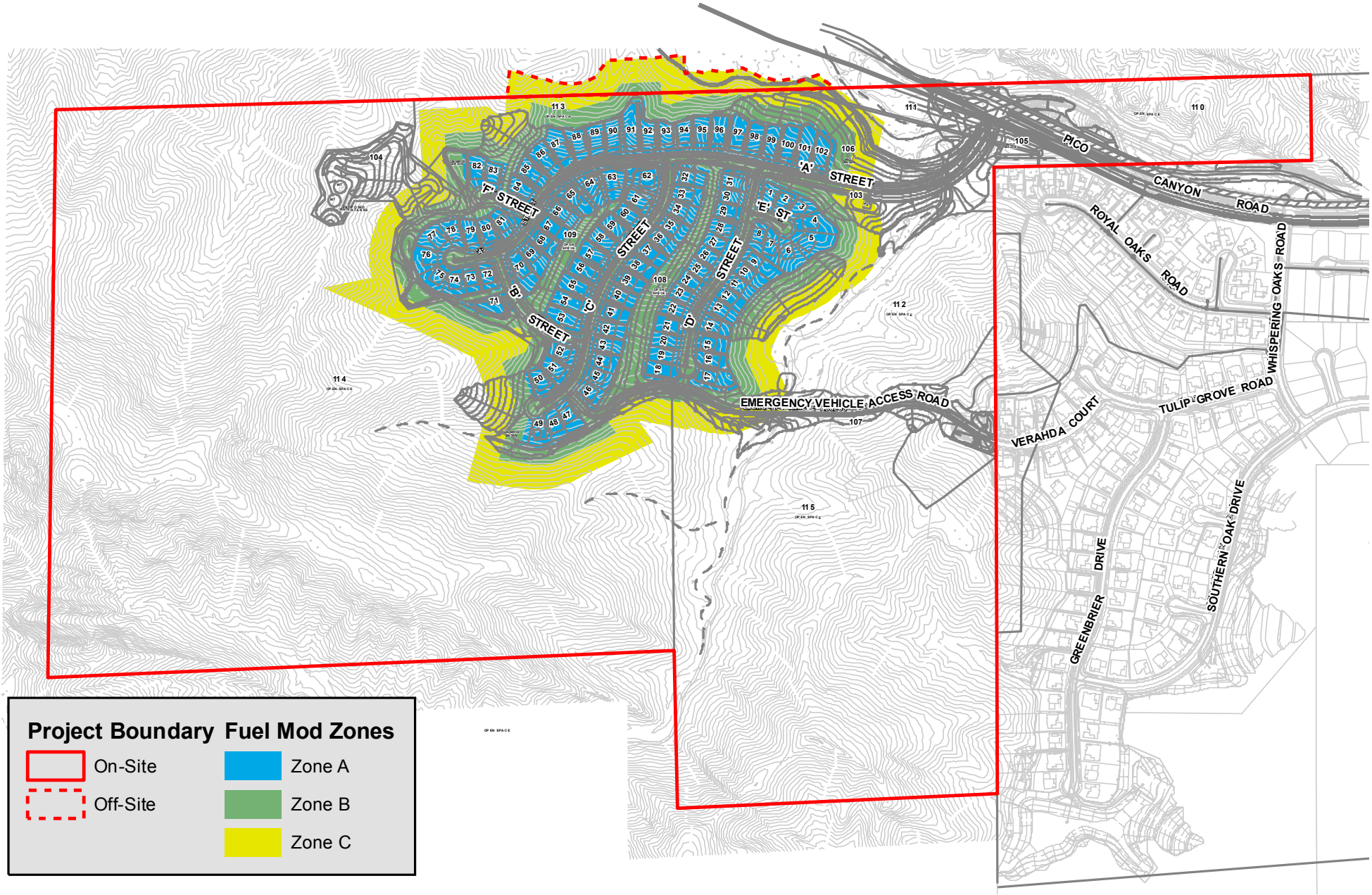
Enacted in 1980, CERCLA, commonly known as Superfund, creates a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The tax goes into a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified.

CERCLA established the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). CERCLIS is the USEPA's system for tracking potential hazardous waste sites within the Superfund program. A site's presence on CERCLIS does not imply a level of federal activity or progress at a site or indicate that hazardous conditions necessarily exist at the location. The Project site is not listed in CERCLIS.

In addition, CERCLA authorizes 2 kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response.
- Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. These actions can be conducted only at sites listed on the USEPA's National Priorities List (NPL).

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the NPL. The Project site is not listed on the NPL.



PCR

Fuel Modification Plan

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2015.

FIGURE

4.7-1

This page intentionally blank.

Resource Conservation and Recovery Act of 1976 (RCRA)

RCRA gives the USEPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste by "large-quantity generators" (1,000 kilograms/month or more). Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed at a facility, any treatment, storage, or disposal unit must be permitted under RCRA. Additionally, all hazardous waste transporters are required to be permitted and must have an identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA. The USEPA has delegated RCRA enforcement to the State of California.

Toxic Substances Control Act (TSCA)

Congress enacted the TSCA of 1976 to give USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. USEPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. USEPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA amended CERCLA on October 17, 1986. SARA reflected USEPA's experience in administering the complex Superfund program during its first 6 years and made several important changes and additions to the program. Primarily, SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, required Superfund actions to consider the standards and requirements found in other State and federal environmental laws and regulations, provided new enforcement authorities and settlement tools, increased State involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, encouraged greater citizen participation in making decisions on how sites should be cleaned up, and increased the size of the trust fund to $8.5 billion.

SARA also required USEPA to revise the Hazard Ranking System (HRS) to ensure that it accurately assessed the relative degree of risk to human health and the environment posed by uncontrolled hazardous waste sites that may be placed on the NPL.

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act, which is implemented by the federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements, as set forth in Title 29 of the Code of Federal Regulations Section 1910, et. seq., are designed to promote worker safety, worker training, and a worker's right–to-know. OSHA has delegated the authority to administer OSHA regulations to the State of California.

Hazardous Materials Transportation Regulations

The U.S. Department of Transportation (USDOT) prescribes strict regulations for the safe transportation of hazardous materials, including requirements for hazardous waste containers and licensed haulers who transport hazardous waste on public roads.

Title 49 of the Code of Federal Regulations, which contains the regulations set forth by the Hazardous Materials Transportation Act of 1975, specifies additional requirements and regulations with respect to the transport of hazardous materials. Title 49 of the Code of Federal Regulations requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements. Drivers are also required to be trained in function and commodity specific requirements.

Emergency and Community Right to Know Act (EPCRA)

EPCRA was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. EPCRA was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. EPCRA establishes requirements for federal, State and local governments, tribes and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. States and communities, working with facilities, can use the information to improve chemical safety and protect public health and the environment. To implement EPCRA, Congress required each State to appoint a State Emergency Response Commission (SERC). The SERCs were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee for each district.

State

California Department of Toxic Substances Control (DTSC)

Authority for the State-wide administration and enforcement of RCRA rests with the California EPA (Cal/EPA), Department of Toxic Substances Control (DTSC). While the DTSC has primary State responsibility in regulating the generation, storage and disposal of hazardous materials, DTSC may further delegate enforcement authority to local jurisdictions. In addition, the DTSC is responsible and/or provides oversight for contamination cleanup, and administers State-wide hazardous waste reduction programs. DTSC operates programs to accomplish the following: (1) deal with the aftermath of improper hazardous waste management by overseeing site cleanups; (2) prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly; and (3) evaluate soil, water, and air samples taken at sites.

Hazardous Waste Source Reduction and Management Review Act of 1989

This act requires generators of 12,000 kilograms/year of typical/operational hazardous waste to conduct an evaluation of their waste streams every 4 years and to select and implement viable source reductions alternatives. This act does not apply to non-typical hazardous waste (such as asbestos and polychlorinated biphenyls). The California Vehicle Code (Title 13 of the CCR) also states that every motor carrier transporting hazardous materials (for which the display of hazardous materials placards is required or which are in excess of 500 pounds, transported for a fee, and which would require placarding if shipped in greater amounts in the same manner) must have a Hazardous Materials Transportation License issued by the California Highway Patrol.

The transport of hazardous waste materials is further governed by the California Health and Safety Code Section 25163 and Title 22, Division 4.5, Chapter 13, of the CCR. Specifically, Section 25163 of the Health and Safety Code requires transporters of hazardous waste to hold a valid registration issued by the DTSC in

his/her possession while transporting hazardous waste. Additionally, Title 22, Division 4.5 Chapter 13 of the CCR includes a number of requirements, which include but are not limited to the following:

- Transporters shall not transport hazardous waste without first receiving an identification number and a registration certificate from DTSC.
- Registration as a hazardous waste transporter expires annually, on the last day of the month in which the registration was issued.
- To be registered as a hazardous waste transporter, an application must be submitted.
- Hazardous waste shall not be accepted for transport without a Uniform Hazardous Waste Manifest that has been properly completed and signed by generator and transporter.
- Hazardous waste shall be delivered to authorized facilities only.

California Occupational Safety and Health Administration (Cal-OSHA) Regulations

The California Occupational Safety and Health Administration (Cal-OSHA) program is administered and enforced by the Division of Occupational Safety and Health (DOSH). Cal-OSHA is very similar to the federal OSHA program. For example, both programs contain rules and procedures related to exposure to hazardous materials during demolition and construction activities. In addition, Cal-OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP). An IIPP is an employee safety program for potential workplace hazards, including those associated with hazardous materials.

Cal-OSHA has set forth work requirements for disturbance of Asbestos Containing Construction Materials (ACCMs) including removal operations for all types of ACCMs. In addition, the agency has developed standards for general industry and the construction industry hazardous waste operations and emergency response. Cal-OSHA ensures that employers must have controls to reduce and monitor exposure levels of hazardous materials, an informational program describing any exposure during operations and the inspection of drums and containers prior to removal or opening. Decontamination procedures and emergency response plans must be in place before employees begin working in hazardous waste operations.

California Office of Emergency Services (Cal-OES) Regulations

The Cal-OES Hazardous Materials (HazMat) Section under the Fire and Rescue Division coordinates State-wide implementation of hazardous materials accident prevention and emergency response programs for all types of hazardous materials incidents and threats. In response to any hazardous materials emergency, the section staff is called upon to provide State and local emergency managers with emergency coordination and technical assistance.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the State hazardous waste management program, which is similar to but more stringent than the federal Resource Conservation and Recovery Act program. The act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying,

packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

Title 27 of the California Code of Regulations (CCR), otherwise known as the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) required the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are: Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (also known as Tiered Permitting); Aboveground Petroleum Storage Tank Spill Prevention Control and Countermeasure Plan (SPCC); Hazardous Materials Release Response Plans and Inventory Program (also known as Hazardous Materials Disclosure or "Community-Right-To-Know"); California Accidental Release Prevention Program (Cal-ARP); Underground Storage Tank (UST) Program; and Uniform Fire Code Plans and Inventory Requirements. The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

California Vehicle Code Title 13

This section of the CCR establishes regulations for motor carrier transport of hazardous materials. For example, all motor carrier transporters of hazardous materials are required to have a Hazardous Materials Transportation license issued by the California Highway Patrol. In addition, placards identifying that hazardous materials are being transported must be displayed on the vehicle.

California Health and Safety Code

The transport of hazardous waste materials is further governed by the California Health and Safety Code Section 25163 and Title 22, Division 4.5, Chapter 13, of the CCR. Specifically, Section 25163 of the California Health and Safety Code requires transporters of hazardous waste to hold a valid registration issued by the DTSC in his/her possession while transporting hazardous waste. Additionally, Title 22, Division 4.5, Chapter 13 of the CCR includes a number of requirements, which include, but are not limited to, the following:

- Transporters shall not transport hazardous waste without first receiving an identification number and a registration certificate from DTSC;
- Registration as a hazardous waste transporter expires annually, on the last day of the month in which the registration was issued;
- To be registered as a hazardous waste transporter, an application must be submitted;
- Hazardous waste shall not be accepted for transport without a Uniform Hazardous Waste Manifest that has been properly completed and signed by generator and transporter; and
- Hazardous waste shall be delivered to authorized facilities only.

California Division of Oil, Gas and Geothermal Resources (DOGGR)

The California Division of Oil, Gas and Geothermal Resources (DOGGR) is the State agency responsible for the oversight of drilling, operation, maintenance, plugging and abandonment of gas, oil and geothermal wells. DOGGR established a regulatory program for the management of these resources, emphasizing their responsible development through sound engineering practices that protect the environment, prevent pollution and ensure public safety. DOGGR recommends that construction of buildings over or in the proximity of plugged and abandoned oil wells should be avoided, and if not feasible, then plugging or re-plugging wells should be performed to current DOGGR standards. The State Oil and Gas Supervisor can require the re-abandonment of previously plugged or abandoned wells, when construction will be taking place over or in the vicinity of a well is considered to result in a hazard.

Regional/Local

Los Angeles Regional Water Quality Control Board (LARWQCB)

The Regional Water Quality Control Board (RWQCB) is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of CCR. Additional state regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

The Spills, Leaks, Investigation and Cleanup (SLIC) Program was established by the State Water Resources Control Board (SWRCB) to allow each of its nine Regional Boards to oversee the cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely impacting the state's waters. Sites managed within the SLIC Program include sites polluted as a result of recent or historic spills, subsurface releases (e.g., pipelines, sumps), complaint investigations, and all other unauthorized discharges that pollute or threaten to pollute surface and/or ground waters. The SLIC Section of the LARWQCB oversees activities at non-underground storage tank (UST) sites where soil or groundwater contamination have occurred due to former industrial facilities and dry cleaners, and where chlorinated solvents were spilled or have leaked into the soil or groundwater.

The LARWQCB also maintains an UST Program that deals specifically with leaking fuel tanks. While there may be other constituents of concern resulting from leaking fuel tanks, the primary substance of concern of this program is fuel. Most frequently, these fuel tank leaks are associated with common neighborhood gasoline service stations.

Los Angeles County Fire Department (LACFD)

The LACFD monitors the storage of hazardous materials in the County for compliance with local requirements. Specifically, businesses and facilities which store more than threshold quantities of hazardous materials as defined in Chapter 6.95 of the California Health and Safety Code are required to file an Accidental Risk Prevention Program with the LACFD. This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations. The LACFD also has delegated authority to administer and enforce Federal and State laws and local ordinances for USTs. Plans for the construction/installation, modification, upgrade, and removal of USTs are reviewed by LACFD Inspectors.

The CUPA, which has the responsibility for implementing federal and State laws and regulations pertaining to hazardous materials management as part of the Unified Program (discussed above), is the Health Hazardous Materials Division of the LACFD[2].

The CUPA maintains the records regarding location and status of hazardous materials sites in the county and administers programs that regulate and enforce the transport, use, storage, manufacturing, and remediation of hazardous materials. By designating a CUPA, the County has accurate and adequate information to plan for emergencies and/or disasters and to plan for public and firefighter safety.

Wildland Fires and Fire Protection

State

California Fire Plan

The California Fire Plan is the State's plan for reducing the risk of wildfire through a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection (CAL FIRE). By placing the emphasis on prevention, the Fire Plan looks to reduce firefighting costs and property losses, to increase firefighter safety, and to contribute to ecosystem health. The Fire Plan sets up the structure of County-level plans. However, the Fire Plan is structured so that individual fire departments can establish plans and policies for land within their respective jurisdictions.

Sections 51175-51189 of the California Government Code (GC) define responsibilities for CAL FIRE and for local agencies. Sections 51178 and 51181 define the CAL FIRE Director's responsibility to identify Very High Fire Hazard Severity Zones (VHFHSZs), transmit this information to local agencies, and periodically review the recommendations relative to identification of VHFHSZs. In part, Sections 51178.5 and 51179 define the local agency's responsibility to make the recommendation available for public review and to designate, by ordinance, VHFHSZs in its jurisdiction. Section 51176 identifies that land is classified in the State "in accordance with whether a VHFHSZ is present so that public officials are able to identify measures that will retard the rate of spread, and reduce the potential intensity, of uncontrolled fires that threaten to destroy resources, life, or property, and to require that those measures be taken." Sections 51175-51189 direct CAL FIRE to map areas of VHFHSZ within Local Responsibility Areas (LRAs) and State Responsibility Areas (SRAs). Wildland fire protection in California is the responsibility of either the State, local government, or the federal government. LRAs include the incorporated cities, cultivated agricultural lands, and portions of the desert with service typically provided by municipal fire departments, fire protection districts, counties, and by CAL FIRE under contract to the local government. SRAs include areas of the state in which the financial responsibility of preventing and suppressing fires has been determined to be primarily the responsibility of the State.

Mapping of the VHFHSZs is based on relevant factors such as fuels, terrain, and weather. VHFHSZ maps were initially developed in the mid-1990s, but are now being updated based on improved science, mapping techniques, and data. Mapping was prepared by CAL FIRE's Fire and Resource Assessment Program using data and models that describe development patterns, potential fuels over a 30-50 year horizon, expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure to new construction. Based on the State "Fire Hazard Severity Zones in SRA" for Los Angeles County (County), the Project site is designated SRA VHFHSZ. When development is located within a VHFHSZ, annual

[2] *http://www.fire.lacounty.gov/hhmd/*

vegetation clearing, building design/materials restrictions, and other building mandates are required to protect properties from wildfire.

California Fire Code (CFC) 2013

Section 100 of Title 32 (Fire Code) of the County of Los Angeles Code of Ordinances states that the County has adopted the 2013 CFC, based on the International Fire Code (IFC), 2012 Edition, with errata, published by the International Code Council (ICC), and the whole thereof (including Appendix B, Appendix BB, Appendix C, Appendix CC, and Appendix K of the IFC). The IFC includes regulations for the protection of life and property from the fire and explosion, as enforced by the LACFD. The purpose of the CFC is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations.

Relevant fire-related provisions of the CFC are discussed below under the Los Angeles County Code – Fire Code (Title 32).

Local

Los Angeles County Fire Department

The LACFD provides 24-hour, all-risk emergency services to a population of over four million residents living and working in 57 of the County's 88 cities, including all of the County's unincorporated communities and the City of La Habra within Orange County. As discussed in detail in Section 4.11, *Public Services*, of this EIR, the Project site is located within Division 3 of the LACFD's North Regional Operations Bureau.[3] This Bureau includes Divisions 3 and 5, representing 43 fire stations serving communities in the Antelope and Santa Clarita Valleys, and the Air and Wildland Division, based in Pacoima. Division 3 serves the communities of Altadena, La Canada Flintridge, La Crescenta, Newhall, Chatsworth, Gorman, Stevenson Ranch, Santa Clarita, Aqua Dulce, Canyon Country, and Castaic.[4] The LACFD Fire Station 124 (Fire Station), located at 23740 Hemingway Avenue, Stevenson Ranch, is the primary fire protection service provider to the Project site. The Fire Station is located approximately one mile northeast of the Project site. The Fire Station has a jurisdictional service boundary of 33.54 square miles. However, the LACFD operates under a regional concept in its approach to providing fire protection and emergency medical services, wherein emergency response units are dispatched as needed to an incident anywhere in the LACFD's service territory based on distance and availability, without regard to jurisdictional or municipal boundaries.

Los Angeles County Code

Title 32 - Fire Code

Title 32 is the Fire Code in the Los Angeles County Code, which establishes regulations affecting or relating to structures, processes, premises, and safeguards regarding fire hydrant systems, water supply, fire equipment access, posting of fire equipment access, parking, lot identification, weed abatement, combustible brush and vegetation that represents an imminent fire hazard, debris abatement, combustible storage abatement

[3] *Los Angeles County General Plan 2035, Public Review Draft, Figure 12.7, Fire Department Battalions and Stations, January 20, 2014.*

[4] *Los Angeles County Fire Department Strategic Plan, Engineering our Future, 2012.*

including flammable liquid storage, hazardous material storage and use, open-flame and open-burning, and burglar bars at State-regulated mobile home and special occupancy parks within the jurisdiction of the Fire Department as per California Health and Safety Code Sections 18691 and 18873.5.

Fuel Modification

Due to the relatively high fire hazard potential that exists in the VHFHSZ, development within these areas is subject to various governmental codes, guidelines, and programs aimed at reducing the potential fire hazard risks to an acceptable level. Per Section 4907.1 of the County Code, "Defensible space will be maintained around all buildings and structures in State Responsibility Area (SRA) as required in Public Resources Code 4290 and "SRA Fire Safe Regulations" California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 2, Section 1270. Section 4908.1 further states that:

> "A fuel modification plan shall be submitted and have preliminary approval prior to any subdivision of land and have final approval prior to the issuance of a permit for any permanent tent, yurt, trailer, or other structure used for habitation, to the issuance of a permit for any structure that changes occupancy classification from a non R to R type occupancy, and new construction, remodeling, modification, or reconstruction of: (1) any enclosed structure over 120 square feet; (2) any structure enclosed on three sides or more and greater than or equal to 200 square feet; and (3) any structure greater than or equal to 400 square feet, where such remodeling, modification, or reconstruction increases the square footage of the existing structure or footprint by 50 percent or more within any 12-month period, and where the tent, yurt, trailer, structure, or subdivision is located within areas designated as a Fire Hazard Severity Zone within the State Responsibility Areas or Very High Hazard Severity Zone within the Local Responsibility areas, applicable Hazard Zone maps, and Appendix M of this code at the time of application. Every fuel modification plan shall be reviewed by the forestry division of the fire department for defensible space, reasonable fire safety, and compliance with Sections 325.2.1, 325.2.2, 325.10, and 503.2.1 of this code, the Fire Departments Fuel Modification Guidelines, and California Code of Regulations Title 14, Division 1.5, Chapter 7, subchapter 2. After such final plan has been approved by the forestry division of the fire department, a signed and notarized copy of the provided Covenant and Agreement and or previously reviewed and approved association CC&R's that include the necessary fuel modification information shall be recorded at the registrar-recorder/County clerk's office and a copy given to the Fuel Modification Unit prior to site inspection and release. The fuel modification inspection ensures compliance with applicable requirements of this code, the Building Code, Section 701A.5 (Vegetation management compliance), and the Residential Code, Section R327.1.5 (Vegetation management compliance). An on-site inspection must be conducted by the forestry division of the fire department and a final release issued by the forestry division prior to a certificate of occupancy being granted by the building code official."

The County has also prepared *Fuel Modification Plan Guidelines*, which set forth guidelines and landscape criteria for all new construction to implement ordinances relating to fuel modification planning to help reduce the threat of fires in high hazard areas. Generally, a fuel modification plan identifies specific zones within a property, which are subject to fuel modification. A fuel modification zone is a strip of land where combustible native or ornamental vegetation must be modified and/or partially or totally replaced with drought tolerant, fire resistant plants and other low-risk landscape materials.

Consistent with the County Fire Code requirements for new single-family residential development in a VHFHSZ, the following standards would be implemented by the Project:

Building/Fuel Modification

- The Project would include fuel modification/management zones to help suppress wildland fires in accordance with the County's Fire Code and *Fuel Management Plan Guidelines*. Prior to approval of the Tenative Map, the LACFD would review and approve the Project's Conceptual Fuel Modification Plan consistent with the County Fire Code requirements for VHFHSZ.

- The Project would incorporate fire-resistant construction, consistent with the applicable requirements of County Code Title 26, Chapter 7A, for all structures adjoining a Wildland-Urban Interface Fire Area that are subject to exterior wildfire exposure, including the use of fire-resistant building materials. Such materials would be clearly shown on construction drawings and reveiwed by the Building and Safety Division prior to the issuance of any building permits.

- The Project would incorporate a landscape plan that utilizes a plant palette consisting of fire resistant plants, native and appropriate non-native drought-tolerant species in accordance with the County's *Fuel Modification Plan Guidelines*.

Title 20 – Utilities (Fire Flows)

The availability of sufficient on-site water pressure is a basic requirement of the Fire Department. Per County Code Section 20.16.060, *Minimum Fire Flow and Fire Hydrant Requirements*, of the County Code, "the minimum fire flow and fire hydrant requirements shall be determined by the fire chief or fire marshal. The computation of the available fire flow shall be based upon a minimum of 20 pounds per square inch gauge (psig) residual operating pressure remaining in the street main from which the fire flow is being measured at the time of measurement of the fire flow. The fire chief or fire marshal shall be guided by but may adjust the quantities set forth in the fire department's regulations on the basis of local conditions, exposure, congestion and construction of buildings. Should the fire chief or fire marshal determine that it is necessary to require a fire flow pursuant to this section in excess of 5,000 gallons per minute (gpm), that determination must first be approved by the water appeals board. The fire department and water purveyors shall cooperate to establish improved duration requirements to increase the water available for wildfires in very high fire hazard severity zones."

Also, when development occurs in a VHFHSZ, the fire flow duration should be provided from storage located at an elevation capable of delivering the fire flow by gravity. Pumping stations in gravity feed systems shall have available two separate means of pumping; one such means may be either a portable emergency generator or portable pumping unit driven by an internal combustion engine. An alternative system employing dual pumping facilities utilizing two independent sources of power, one of which shall be an internal combustion engine utilizing natural gas piped to the site or other fuel stored on the site, may be substituted for a gravity system. Up to 500 gpm may be added for each additional floor level, in addition to the first floor, to a total required fire flow not to exceed 5,000 gpm.

Where buildings are constructed of fire-resistive materials such as concrete, brick, etc., and/or provided with automatic fire-sprinkler systems, required fire flows may be reduced. All such reductions shall be predicated

on recognized standards and recommendations of the public fire protection grading and rating agencies providing that service.

All required fire flows up to and including 2,000 gpm must be available from any accessible single public street hydrant within the required distance of the proposed structure. For required fire flows greater than 2,000 gpm, the total required fire flow must be available from no more than the two closest public street fire hydrants to the proposed structure.

Fire Flow/Water Supply

Consistent with County Code Title 20, *Utilities*, fire flow and fire hydrant requirements for new single-family residential development in a VHFHSZ, the following standards would be implemented by the Project:

- All of the proposed single-family residential structures would have a minimum fire flow of 1,250 gpm at 20 psi residual pressure for a two-hour duration. If a proposed single-family detached home exceeds a total square footage of 3,600, the fire flow would be determined by Table B105.1 in Appendix B of the Los Angeles County Fire Code which may trigger fire flow up to 5,000 gpm.
- Fire sprinkler systems would be installed in all single-family detached homes in accordance with Los Angeles County Building and Fire Code, along with applicable department regulation and standard.
- Fire hydrant spacing would be a maximum of 600 feet and meet the following requirements:

    a) No portion of lot frontage would be more than 450 feet via vehicular access from a public fire hydrant.

    b) No portion of a structure would be placed on a lot where it exceeds 750 feet via vehicular access from a properly spaces public fire hydrant.

    c) When cul-de-sac depth exceeds 450 feet on a residential street, hydrants would be required at the corner and mid-block.

- All fire hydrants would be installed, tested, and accepted or bonded prior to Final Map approval.

Title 21, Subdivisions – Access

Section 21.24.020, *Restricted Residential Access*, states that a subdivision may have one access point if the development is less than 150 units and the street system does not traverse a wildland area which is subject to hazard from brush or forest fire. A single access point may also be permitted if the subdivision has less 75 dwelling units where the street system traverses a wildland area which is subject to hazard from brush or forest fire.

The Code provides for discretion by the Fire Department to determine if additional access points are necessary beyond the minimum Code requirements where a street system a wildland area which is subject to extreme hazard from brush or forest fires; and where the lack of a second route of access would unduly hinder public evacuation and the deployment of fire-fighting and other emergency equipment in the event of a brush or forest fire.

Access

Consistent with County Code Title 21, *Subdivisions*, access requirements for new single-family residential development in a VHFHSZ, the following standards would be implemented by the Project:

- All proposed structures would be accessible to Fire Department apparatus by way of access roadways consistent with Title 21 (Los Angeles County Subdivision Code) and Section 503 of the Fire Code, with an all-weather surface of not less than 20 feet in width. The roadways would be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the corner.
- An approved Fire Department turning area would be provided for all fire apparatus access roads exceeding 150 feet in length and at the end of all cul-de-sacs.
- The maximum allowable grade for roadways would not exceed 15% except where topgrapghy makes it impractical to keep within such grade. In such cases, an absolute maximum of 20% may be provided for up to 150 feet in distance. The average maximum allowed grade, including topographical difficulties, would not be more than 17%. Grade breaks would not exceed 10% in ten feet. All cross slopes and required Fire Department turnaround areas would provide a maximum grade of 2%.
- Access roads would be maintained with a minimum of 10 feet brush clearance on each side. Fire access roads would have an unobstructed vertical clearance clear-to-sky with the exception of protected tree species, if applicable. Protected tree species overhanging fire access roads would be maintained to provide a vertical clearance of 13 feet 6 inches.
- The private driveways would be indicated on the final map as "Private Driveway and Fire Lane" with the widths clearly depicted. Driveways would be maintained in accordance with the Fire Code.
- The Project would include an emergency vehicle access road to the east, connecting with Verandah Court, and serving a as a second point of emergency access and evacuation. The Project's Emergency Access Road would provide a minimum paved width of 24 feet, clear- to-sky, and would maintain all-weather access capabilities with a bridge or culvert to cross the existing water course. The Emergency Access Road would comply with standard road requirements: maximum grade of 15%, grade differential would not exceed 1O% in 10 feet, maximum 32 feet centerline turning radius, and maintain a minimum 10 feet brush clearance on each side of the road. The Emergency Access Road would be gated with the following: the gate(s) would not encroach into the required access width, would be constructed with a material as designated in the Fire Code, and be equipped with an approved locking device.

Title 26, Buildings

Title 26, Chapter 7A provides materials and construction method requirements for structures within a Wildland-Urban Interface Fire Area that are subject to exterior wildfire exposure. It is notable that Section R327 of the California Residential (Building) Code (CRC), in effect, addresses these same or similar requirements. The purpose of these requirements are to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flame or burning embers projected into the air by a vegetation fire and contributes to a systematic reduction in conflagration losses. The Code requirements pertain in part to roofing, windows and doors, and ventilation requirements to minimize the potential for fire intrusion and damage.

Emergency Response

Office of Emergency Management (OEM)

The Office of Emergency Management is responsible for organizing and directing the preparedness efforts of the Emergency Management Organization of Los Angeles County. The OEM is the day-to-day Los Angeles County Operational Area coordinator for the County. The emergency response plan for the unincorporated areas is the Operational Area Emergency Response Plan (OAERP), which is prepared by OEM. The OAERP strengthens short- and long-term emergency response and recovery capability, and identifies emergency procedures and emergency management routes in the County.

Los Angeles Regional Interoperable Communication System (LA-RICS)

The newly proposed Los Angeles Regional Interoperable Communication System (LA-RICS) is a modern, integrated wireless voice and data communication system designed and built to serve law enforcement, fire service, and health service professionals throughout the County. The new system will provide day-to-day communications within agencies and allow seamless interagency communications for responding to routine, emergency and catastrophic events. LA-RICS will replace the patchwork system with a single countywide network, improve overall traffic capacity and coverage, and provide a dedicated broadband network for first responders.

CERT Program

The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area, and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using the training learned in the classroom and during exercises, CERT volunteers can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members are also encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community.

Alert LA County

The County has implemented an emergency mass notification system, Alert LA County, to contact County residents and businesses via recorded phone messages, text messages, or e-mail messages in case of emergencies or critical situations and provide information regarding necessary actions, such as evacuations.

Existing Conditions

General Site and Surrounding Land Use Characteristics

The Project site is primarily vacant and consists of undeveloped terrain with moderate-to-steep variations in topography. Several small-to-medium drainage courses traverse through the site. Also, a concrete-lined drainage channel traverses the northeast portion of the site. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland in the process of transition as they recover from a wildfire in 2010. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site. Other improvements on the site include gates located along an unimproved road that traverses the eastern portion of the site in a general north-to-south orientation. A water well and

apparently plugged/abandoned oil wells occur along the unimproved road in the northern and central portions of the site, respectively. Various unimproved access roads and trails traverse though the site.

The surrounding area consists of undeveloped land, with the exception of a single-family residential development to the east. As stated in the Phase I ESA, a visual inspection of adjoining properties from adjacent sidewalks and public right-of-ways revealed that no adjoining properties were thought to be a potential environmental concern to the site.

Hazardous Materials/Records Review

Section 1.1.1 of the American Society for Testing and Materials (ASTM) Designation E1527-13 defines a recognized environmental condition (REC) as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term as further defined by ASTM "is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." Section 3.2.18 defines a controlled REC (CREC) as a "recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)." Section 3.2.42 defines historical REC (HREC) as a "past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and land use limitations, institutional controls, or engineering controls)."

Federal and State/local Record Sources

The Phase I ESA assessed the presence or likely presence of historical, existing, or threatened releases of any hazardous substances or petroleum products into structures, soil, and/or groundwater beneath the Project site, to the extent practical. As discussed above, these are referred to as RECs, as defined under the ASTM E1527-13.

As part of the Phase I ESA, AEC reviewed Federal and State environmental databases provided by Environmental Data Resources (EDR) of Milford, Connecticut for information pertaining to documented and/or suspected releases of regulated hazardous substances and/or petroleum products within specified search distances. A copy of the EDR Radius Map™ Report is included in Section 13.4 of the Phase I ESA. The following Federal databases related to potential on-site and off-site sources of contamination were reviewed and interpreted by AEC:

Federal Databases	Search Distance from Site
National Priorities List	One-mile
Delist NPL	One-mile
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	One-half mile
CERCLIS No Further Remedial Action Planned (NFRAP)	One-half mile
Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) Facilities	One-mile
RCRA non-CORRACTS Hazardous Waste Treatment, Storage and Disposal (TSD) Facilities	One-half mile
RCRA Hazardous Waste Generators (RCRA GEN)	One-eighth mile
Emergency Response Notification System (ERNS)	One-eighth mile
Institutional Controls/Engineering Control (IC/EC) Registries	One-half mile

The following State/local databases related to potential on-site and off-site sources of contamination were also searched and reviewed:

State/Local Databases	Search Distance from Site
State-equivalent NPL and CERCLIS (RESPONSE and ENVIROSTOR)	One-mile
State Voluntary Cleanup Sites (VCP)	One-half mile
State Landfill and/or Solid Waste Disposal Sites (SWF/LF)	One-half mile
State Leaking Storage Tank (LUST and SLIC)	One-half mile
State Registered Storage Tank (UST, AST)	One-eighth mile
Los Angeles County HMS (Los Angeles County Department of Public Health)	--

Descriptions/sources of each of the above referenced regulatory databases and the dates these databases were last updated by the applicable regulatory agencies are included in the EDR report. The site was not listed on any of the databases searched by EDR.

With regards to adjoining and nearby properties, several listings are identified at the address of 26835 Pico Canyon Road in the EDR database. DKM Offshore Energy Inc, Texaco Inc, and Tidelands Oil Product Co are listed at this address in the Los Angeles County HMS database. ARCO Products Co is also listed at this address under the LUST database with a case-closed regulatory status. The listings are mapped at several locations in the EDR database report; however, the actual location of 26835 Pico Canyon Road coincides with the EDR-mapped location for ARCO Products Co, situated 0.35-mile west-northwest of the Project site. This address is part of the Newhall-Potrero oil field, an active oil field covering several square miles north of the site.

Per the Phase I ESA, the off-site properties listed on the various regulatory databases are not expected to have adversely impacted the site. This opinion is based on several factors including distance of the listed properties from the site, orientation of the listed properties relative to the site, and/or regulatory case status information for the various properties as described in the database report.

Non-ASTM Database Reviews

As part of the Phase I ESA, over 60 other non-ASTM databases were searched by EDR and reviewed by AEC during the preparation of the assessment. The descriptions of each database and their data release

frequency are included in the EDR report, included in Section 13.4 of the Phase I ESA. The site was not listed on any of the non-ASTM databases searched by EDR. Off-site properties listed on the non-ASTM databases as referenced in the EDR report do not represent an environmental concern to the site.

AEC also searched for information regarding a possible release at the site on the GeoTracker database maintained by the California Water Resources Control Board. No release cases were identified in the GeoTracker search of the site or adjoining properties.

As part of the Phase I ESA, AEC also conducted a review of historic topographic maps and aerial photos of the site dating back to the 1930s and 1950s, respectively. No environmental concerns in connection with historic uses of the site or its surroundings were noted during these reviews.

State of California Division of Oil and Gas Records

According to online resources provided by DOGGR, the site is not located in an oil field. Two plugged oil wells are identified on the site as "dry holes" and labeled Gerald 1, API 03705406 (western well) and Overman 1, API 03705378 (eastern well). Based on the location of the inactive oil wells, it appears each former well is located over 300 feet from the proposed residential pads planned for construction in the future, and therefore, are not considered to be an environmental concern to the site. Given the site is not within an oil field and no existing or former oil wells are located within the development footprint area, methane hazards are not considered to be a significant environmental concern.

Site Reconnaissance

As part of the Phase I ESA, a site reconnaissance was conducted by AEC Staff to obtain information indicating the likelihood of recognized environmental conditions in connection with the site. The below items were noted as part of the site reconnaissance.

Non-Hazardous Solid Waste Disposal Areas. AEC observed recently cleared areas located adjacent to the existing unimproved road. These areas include discarded trash and debris, small piles of concrete and asphalt, and miscellaneous pieces of plastic. No hazardous materials were observed in these areas and no evidence of stained soil was observed. The presence of the trash and debris is not considered to be a significant environmental concern.

Drinking Water Systems/Water Wells and Other Wells. AEC observed a potential water supply well in the northeastern portion of the site and an apparently plugged/abandoned oil well located adjacent to the site's unimproved road. These observations are consistent with the record search results discussed above. These wells appeared to be capped within 10 feet of the ground surface. Per the Phase I ESA, the presence of these wells is not considered to be a significant environmental concern.

Chemical/Petroleum Odors. AEC noted an area of what appeared to be disturbed soil with petroleum staining and odors located west of Wickham Canyon. At the time of the site reconnaissance, the lateral extent of the stained and odorous soil appeared to be approximately 400 square feet in size. The stained and odorous soil appeared to be surficial in nature. Given the apparent limited extent of the petroleum hydrocarbon impacted soil, this area is not considered by the Phase I ESA to be a significant environmental concern.

Subsurface Exploration

AEC has conducted a subsurface exploration and soil sampling/analysis within the disturbed area mentioned above. Total petroleum hydrocarbons (TPH) were detected in two of the eight test pits sampled during this exploration. Of the 30 soil samples that were collected and analyzed for TPH, eight had detectable concentrations that were primarily in the heavier ended ranges (oil and upper end of diesel). The most significant concentration were located at the five- and ten- foot depths of test pit 5 (TP5), with moderate detections and decreasing concentrations extending downward to the total depth of exploration of 23 feet. Additional TPH detections, which were less significant, were at the 17-, 18-, and 20- foot depths of test pit 3 (TP3). Based on the chromatograms generated during laboratory analysis, the TPH signature is generally indicative of a naturally occurring and unrefined hydrocarbon product. It could be possible that the hydrocarbon impacted soil that was placed in its current location was derived as a by-product of historical oil well drilling and attempts at oil well development which reportedly occurred both to the east-southeast and west of the area of impact. Title 22 metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides (OCPs), and polychlorinated biphenyls (PCBs) found at the Project site are not considered to be contaminants of significance. Based on an interpretation of available data, it is estimated that upwards to 4,000 cubic yards of soil at the Project site are impacted with petroleum hydrocarbons (PHs). This volume estimate could increase or decrease based on actual subsurface conditions.

Wildland Fire Potential

The Fire Department designates land in the County in regard to its potential for wildland fire hazards. These designations are made by the County Forester, and are based on multiple criteria, including the following primary characteristics: (1) an area's accessibility, (2) water availability/lack of adequate water supplies, (3) amount and type of vegetative cover, and (4) topography. The two designations used by the Fire Department are Moderate Fire Hazard Zone (Fire Zone 3) and VHFHSZ (Fire Zone 4). Areas within the County not designated as either a Moderate Fire Hazard Zone or VHFHSZ are not considered to be subject to wildland fire hazards. The differences between Moderate Fire Hazard Zone and VHFHSZ designations are relatively minor, in that one or more of the four designation criteria listed above (access, water availability, vegetation, and topography) may pose less of a constraint in Moderate Fire Hazard Zone than in the VHFHSZ. Additionally, the VHFHSZ includes more restrictive building requirements than the Moderate Fire Hazard Zone, and is considered to be the most severe fire zone. Portions of a VHFHSZ may, upon development, meet the criteria of a Moderate Fire Hazard Zone, and may be redesignated as a Moderate Fire Hazard Zone at the discretion of the County Forester.

The Project site is located within Fire Zone 4, which is a VHFHSZ; refer to Figure 12.6, *Fire Hazard Severity Zones Policy Map*, of the General Plan 2035 (Draft 2014) and Exhibit S-6, *Very High Fire Hazard Severity Zones*, of the Santa Clarita Valley Area Plan 2012[5]. A VHFHSZ typically has the following vegetative types or is adjacent to such communities: chaparral, coastal sage, annual grasslands, riparian, and oak woodlands. Wildland fires are relatively common occurrences in these plant communities, which are found in the Santa Clarita Valley and surrounding area. These plant communities pose a threat to expanding urban development due to their high combustibility and their dense biomass.

[5] *The Los Angeles County1990 Santa Clarita Valley Area Plan referred to the County General Plan Safety Element, The Wildland and Urban Fire Hazards Map depicting Fire Zone 4 for designation of fire hazard locations.*

During the spring months, wildland vegetation typically begins to lose its moisture content and, by the summer and fall when Santa Ana wind conditions begin to occur, vegetation moisture levels can become very low, which results in a very high wildfire potential. When chaparral and coastal sage growth is younger, it is more succulent, with little or no dead or dying branches; and the growth provides less horizontal fuel continuity, has higher average fuel moisture content, and, as a result, is usually more fire retardant. As these plant species reach 20-plus years in age, their dead-to-live fuel ratio increases, creating more available fuel to carry fire with very high intensities and energy releases.

Historically, large fires tend to burn in Moderate Fire Hazard Zones and VHFHSZ every 20 to 25 years. In 2010, the Project site and surrounding areas burned during a wildfire. In the areas where these plant communities border urban development, the frequency of fire events may be diminished as a result of fire prevention and fire suppression activities. Fire prevention activities include prescribed burns, vegetation thinning/removal, and creation of buffer zones; in contrast, fire suppression involves measures which control fires once they have started (i.e., fuel breaks, use of firefighting equipment, etc.). Fire prevention for urban development in wildland fire hazard areas generally focuses on restricting the types of building materials used, building design, and incorporating setbacks from areas with flammable vegetation. Development within a VHFHSZ is required to meet the building construction requirements specified in the County Fire Code, as well as other fire-related Code requirements. Examples of fire code provisions that development in these areas must meet are presented above in the Regulatory Framework section.

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provide thresholds of significance to determine whether a project would have a significant environmental impact regarding hazards and hazardous materials. Based on the size and scope of the Project and the potential for hazards and hazardous materials impacts, the thresholds below are included for evaluation in this EIR.

Would the Project:

Threshold HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (refer to Impact Statement 4.7-1);

Threshold HAZ-2: 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? (refer to Impact Statement 4.7-2);

Threshold HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses? (refer to Impact Statement 4.7-3);

Threshold HAZ-4: 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, create a significant hazard to the public or the environment? (refer to Impact Statement 4.7-4);

Threshold HAZ-5: Result in a safety hazard for people residing or working in the Project area and 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? (refer to Impact Statement 4.7-5);

Threshold HAZ-6: Result in a safety hazard for people residing or working in the Project area and within the vicinity of a private airstrip? (refer to Impact Statement 4.7-6);

Threshold HAZ-7: Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan? (refer to Impact Statement 4.7-7);

Threshold HAZ-8: Expose people or structures to a significant risk of loss, injury or death involving wildland fires, because the Project is located:

- Within a Very High Fire Hazard Severity Zones (Fire Zone 4)?
- Within a high fire hazard area with inadequate access?
- Within an area with inadequate water and pressure to meet fire flow standards?
- Within proximity to land uses that have the potential for dangerous fire hazard?

(Refer to Impact Statement 4.7-8 for a discussion of wildland fires)

Threshold HAZ-9: Constitute a potentially dangerous fire hazard? (refer to Impact Statement 4.7-8); or

Threshold HAZ-10: Be located on a site with previous uses that indicate residual soil toxicity of the site or is the site located within two miles downstream of a known groundwater contamination source within the same watershed? (refer to Impact Statement 4.7-9).

Methodology

To assist in evaluating potential impacts associated with hazardous materials that would occur due to construction and/or operation of the Project, the record search results and conclusions in the Phase I ESA report were incorporated into the analysis. Based on the results of the Phase I ESA, the potential for construction and/or operation of the Project to result in significant impacts associated with hazardous materials was evaluated.

Understanding that the Project site and surrounding area are highly susceptible to wildland fire hazards, the analysis of impacts regarding wildland fires considers the existing site conditions, existing regulations in place that address fire hazards, the future uses and Project features that would occur as a result of Project implementation, and the availability of fire protection services. Based on these considerations, a determination is made as to whether there would be an significant increase in the potential for wildland fire hazards to occur as a result of Project implementation and whether the Project would expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Project Design Features

The following Project Design Features (PDFs) are reflected in the Project plans and would be included in the Mitigation Monitoring and Reporting Program (MMRP) for the Project. These features would prevent the occurrence and/or minimize the significance of potential hazards and hazardous materials impacts, including wildland fire impacts.

Oil Well Features

PDF 7-1: The two existing, plugged abandoned wells identified on the site as "dry holes" and labeled Gerald 1, API 03705406 (western well) and Overman 1, API 03705378 (eastern well) would be over 300 feet from any proposed residential pads planned for development by the Project. The locations of the former wells would be clearly shown on construction drawings that are reviewed and approved prior to the issuance of grading permits by the Building and Safety Division.

PDF 7-2: Prior to the commencement of mass grading activities, a preconstruction meeting with the selected grading contractor would be held to ensure that said contractor is aware of the area of petroleum staining and odors located on-site and west of Wickham Canyon so that it is handled and managed appropriately in accordance with regulatory guidelines including, but not limited to, DOGGR, the Regional Water Quality Control Board, and/or LACFD. Further, during the course of earthwork activities, the selected grading contractor shall notify the site owner and/or their designated representative (i.e. general contractor or other designated party) if additional areas of impacted soils are discovered on-site so that such areas would also be handled and managed appropriately.

PDF 7-3: The proposed water tank access road would provide a minimum paved width of 20 feet. The access maybe reduced to a minimum width of 15 feet if accepted by the Valencia Water Company. (This PDF to be verified by LACFD prior to recordation of the Tenative Map.)

PDF 7-4: For the safety of construction personnel, neighboring homes, and firefighting safety in the wildland areas, the Project Applicant, under the supervision of the Fire Chief, would complete the Project roadways in accordance with applicable LACFD and/or County design standards in the area prior to grading permit issuance.

PDF 7-5: The Project would include two, 250,000-gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline within Pico Canyon with a secondary point of connection at Verandah Court. The proposed water infrastructure could be utilized for firefighting purposes. (This PDF to be verified by LACFD prior to recordation of the Tenative Map.)

Please refer to Impact Statement 4.7-8 below for further details of the County Fire Code requirements and PDFs related to the Project's proposed fire protection features.

Analysis of Project Impacts

Hazardous Materials

Threshold HAZ-1: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Impact Statement 4.7-1: Implementation of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact is considered less than significant.

The type and amount of hazardous materials to be used in association with the Project would be typical of those used in single-family residential developments. Specifically, operation of the residential uses would involve the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance. While it is impossible to guarantee compliance from Project residents, it is likely that virtually all potentially hazardous materials, presumed to be in small quantities, would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any associated risk would be adequately reduced to a less than significant level through compliance with these standards and regulations.

Risk of Upset

Threshold HAZ-2: Would the Project 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?

Impact Statement 4.7-2: Implementation of the Project could 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. However, compliance with applicable regulatory requirements and implementation of the applicable PDFs and the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.

The type and amount of hazardous materials to be used in association with operation of the Project would be typical of those used in single-family residential developments. It is anticipated that the use and storage of such materials would occur in compliance with applicable standards and regulations, and would not pose significant hazards.

Construction of the Project would involve the use of potentially hazardous materials such as vehicle fuels, oils, and transmission fluids. All such potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. As such, the use of such materials would not be expected to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions.

As indicated in the Existing Conditions above, a records search of the site and its surroundings did not reveal the presence of any RECs that would pose significant hazards to the Project. However, the presence of former, on-site site oil wells are discussed below.

Site reconnaissance observed recently cleared areas located adjacent to the existing unimproved road. These areas include discarded trash and debris, small piles of concrete and asphalt, and miscellaneous pieces of plastic. No hazardous materials were observed in these areas and no evidence of stained soil was observed. The presence of the trash and debris is not considered to be a significant environmental concern.

A search of DOGGR records and field reconnaissance indicated that the site is not located within an oil field, but did confirm the presence of two plugged oil wells identified on the site as "dry holes" and labeled Gerald 1, API 03705406 (western well) and Overman 1, API 03705378 (eastern well). Based on the location of the inactive oil wells, it appears each former well is located over 300 feet from the proposed residential pads, and therefore, are not considered to be an environmental concern to the site. PDF 7-1 would be implemented by the Project to ensure no residential pads are located within 300 feet of the abandoned wells. In addition, to further ensure that the former oil wells were properly abandoned, Mitigation Measure 4.7-1 has been prescribed to require that the Permittee provide the Los Angeles County Department of Public Works documentation that both wells were properly abandoned in accordance with the applicable standards of DOGGR. Implementation of the prescribed mitigation meausre would ensure that no hazardous conditions would occur with the former on-site oil wells. In addition, the developer may wish to formally abandon the water supply well at the site if it is not going to be utilized in the future. However, the water well would not create any significant hazardous materials-related impact.

In addition, as discussed in the Existing Conditions Section above, site reconnaissance noted an area of what appeared to be disturbed soil with petroleum staining and odors located west of Wickham Canyon. At the time of the site reconnaissance, the lateral extent of the stained and odorous soil appeared to be approximately 400 square feet in size. The stained and odorous soil appeared to be surficial in nature. Per the Phase I ESA, given the apparent limited extent of the petroleum hydrocarbon impacted soil, this area is not considered to be a significant environmental concern. Per the subsurface exploration and soil sampling/analysis and based on an interpretation of available data, it is estimated that upwards to 4,000 cubic yards of soil at the Project site are impacted with petroleum hydrocarbons. This volume estimate could increase or decrease based on actual subsurface conditions. The presence of such soil is not considered to be a significant threat to human health or the environment and as such, is not considered to be actionable or a condition that requires reporting to an environmental regulatory agency. However, to ensure that the soil is property remediated, PDF 7-2 and Mitigation Measure 4.7-2 has been prescribed. This prescribed mitigation requires that prior to grading permit issuance and the commencement of mass grading activities, the petroleum hydrocarbon impacted soil shall be managed in accordance with a soil management plan (SMP), community health and safety plan, and worker health and safety plan. Further, PDF 7-2 requires a preconstruction meeting with the selected grading contractor be held to ensure that said contractor is aware of the area of petroleum staining and odors located on-site to ensure that it is handled and managed appropriately. In addition, during the course of earthwork activities, the selected grading contractor should notify the site owner and/or their designated representative (i.e. general contractor or other designated party) if additional areas of impacted soil are discovered on-site so that such areas could also be handled and managed appropriately. Implementation of the prescribed PDFs and mitigation measures would ensure that potentially significant impacts associated with the stained soil are less than significant.

Mitigation Measures

Mitigation Measure 4.7-1 Prior to issuance of a grading permit for the Project, the Permittee shall comply with the proper abandonment standards of the State of California Division of Oil, Gas and Geothermal Resources (DOGGR). A DOGGR monitor shall be present on site during all abandonment activities on the on-site oil wells.

Mitigation Measure 4.7-2 Prior to the issuance of a grading permit for the Project, the Permittee shall submit a community health and safety plan, worker health and safety plan, and the Soils Management Plan (SMP) prepared by a California-licensed professional geologist to the LACFD and/or the DTSC. The SMP would state if the soil shall require special handling either in advance of grading activating or concurrent with grading work and describe various remedial options (including off-site disposal or on-site reuse). The SMP shall include protocols for screening of soil exhibiting impacts; handling and/or disposal of the soils impacted with petroleum hydrocarbon, title 22 metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides (OCPs), and polychlorinated biphenyls (PCBs); stockpile management; vapor suppression and dust control; surface water protection; soil stockpile sampling; sampling frequence; and exporting of contaminated soils.

Hazardous Emissions or Materials

Threshold HAZ-3; Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses?

Impact Statement 4.7-3: Implementation of the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses. This impact is considered less than significant.

Sensitive land uses are generally considered to be uses such as playgrounds, schools, senior citizen centers, hospitals, day-care facilities, or other uses that are more susceptible hazardous materials, such as residential neighborhoods. The only sensitive use within one-quarter mile of the Project site is the residential community which abuts the Project site on the east. However, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Construction of the Project would involve the use of potentially hazardous materials such as vehicle fuels, oils, and transmission fluids. All such potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Therefore, impacts would be less than significant.

Existing On-Site Hazards

Threshold HAZ-4: Would the Project 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, create a significant hazard to the public or the environment?

Impact Statement 4.7-4: Although the Project would be located on a site that includes inactive oil wells, implementation of the applicable PDFs and the prescribed mitigation measure would ensure that no significant hazards affect the public or the environment.

Government Code Section 65962.5, amended in 1992, requires the CalEPA to develop and update annually the Cortese List, which is a list of hazardous waste sites and other contaminated sites. While Government Code Section 65962.5 makes reference to the preparation of a list, many changes have occurred related to web-based information access since 1992, and information regarding the Cortese List is now compiled on the websites of the DTSC, the State Water Board, and CalEPA.

As discussed in the Existing Conditions section above, the Project site does not appear on any of the applicable hazardous materials databases, although the site does appear on the DOGGR database, which indicates the presence of two inactive, "plugged" oil wells on the site. Impacts related to the wells are addressed under Impact Statement 4.7-2. As discussed therein, conservatively, the Project's potentially significant impacts associated with the inactive wells would be reduced to a less than significant level with implementation of PDF 7-1 and Mitigation Measure 4.7-1.

Public Airport Hazard

Threshold HAZ-5: Would the Project result in a safety hazard for people residing or working in the Project area and 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?

Impact Statement 4.7-5: Implementation of the Project would not result in a safety hazard for people residing or working in the Project area and 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, such that no significant hazard would occur to the public or the environment.

The Project site is not within an airport land use plan and it is not within two miles of a public use airport. The nearest airports, Van Nuys Airport (16461 Sherman Way, Van Nuys, CA) and Whiteman Airport (12653 Osborne Street, Los Angeles) are located approximately 12 miles south and 13 miles southeast of the Project site, respectively. No safety hazards for people residing or working in the area would occur as a result of the Project, and no impacts would occur.

Private Airport Hazard

Threshold HAZ-6: Would the Project result in a safety hazard for people residing or working in the Project area and within the vicinity of a private airstrip?

Impact Statement 4.7-6: Implementation of the Project would not result in a safety hazard for people residing or working in the Project area and within a private airstrip, as there are no private airstrips in the Project vicinity.

There are no private airstrips in the vicinity of the Project site, and the site is not located within a designated airport hazard area. Therefore, the Project would not result in airport-related safety hazards for the people residing or working in the area. No impact would occur in this regard.

Emergency Response Plan

Threshold HAZ-7: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Impact Statement 4.7-7: Implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact is considered less than significant.

The Project site is primarily vacant and undeveloped. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site. According to Figure 12.7, *Disaster Routes*, of the General Plan 2035 (Draft 2014), the nearest disaster route to the Project site is I-5, located approximately 1.6 miles east of the Project site. Implementation of the Project would not result in the closure of I-5 or any streets designated as an evacuation route in an adopted emergency response or evacuation plan. Construction activities and staging areas would be confined to the Project site. The construction activities would not physically impair access to and around the Project site. Furthermore, development of the Project would comply with County's building and applicable fire and safety codes, which would require adequate access for fire personnel and equipment in and out of the Project site. Therefore, impacts would be less than significant.

Wildland Fires

Threshold HAZ-8: Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, because the Project is: located within a Very High Fire Hazard Severity Zones (Fire Zone 4), within a high fire hazard area with inadequate access, within an area with inadequate water and pressure to meet fire flow standards, or within proximity to land uses that have the potential for dangerous fire hazard?

and

Threshold HAZ-9: Would the Project constitute a potentially dangerous fire hazard?

Impact Statement 4.7-8: *Implementation of the Project could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, because the Project is located within a Very High Fire Hazard Severity Zones (Fire Zone 4), within a high fire hazard area with inadequate access, within an area with inadequate water and pressure to meet fire flow standards, or within proximity to land uses that have the potential for dangerous fire hazard. However, compliance with applicable regulatory requirements and implementation of the Project design features and prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.*

As discussed in the Existing Conditions section above, the Project site is located within Fire Zone 4, which is a VHFHSZ. The regional natural vegetation in this area is highly prone to wildfires. In 2010, the Project site and surrounding areas burned during a wildfire. Residential communities are located immediately to the east of the Project site. Residential uses do not generally present a high potential for dangerous fire hazards. However, the Project site and surrounding uses continue to be subject to potential wildland fire hazards. As such, impacts associated with wildland fires are potentially significant and are discussed below. Section 4.12, *Public Services,* describes fire protection services and facilities that serve the Project site and evaluates the ability of the service providers to provide fire protection service to the proposed Project. The analysis below focuses on the potential for the Project to expose people and structures to wildland fire hazards. This impact is considered a potentially significant impact given the site's designation and location adjacent to wildlands and history of fire occurrences.

Development of the Project would require compliance with development designs, applicable provisions, and safety requirements of County Code Title 32, Fire Code; Title 26, Requirements for Wildland-Urban Interface Fire Areas, of the County Code and; Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure, of the 2010 CBC, as applicable, requiring fire-resistant construction materials and techniques. Consistent with the County's Fire Code requirements (Title 32), a fuel modification plan has been prepared for the Project. The Conceptual Fuel Modification Plan has been developed based on the County's *Fuel Modification Plan Guidelines* and standards for a VHFHSZ. County approval of the conceptual fuel modification plan (FM Project #5516 - FFFP# 201400027) was provided on October 7, 2014. The Fuel Modification Plan includes various zones designed to specifically address fire suppression in different ways. The fuel modification zones are illustrated in **Figure 4.7-1**, *Fuel Modification Plan*. The zones include requirements for minimum structure setbacks, fire road clearance, permanent irrigation systems, fire retardant plants from a County-approved plant list, and landscape and planting maintenance

(i.e., thinning and removal of dead plants). The specific fuel modification zone components (Zone A, Zone B, Zone C, and the Emergency Secondary Fire Access Road Zone) are summarized below.

- **Fuel Modification Zone A – Setback Zone (0 – 30 feet)**
  - Extends 30 feet beyond the edge of any combustible structure, accessory structure, appendage or projection. Overhangs or other parts of the structure not accurately reflected on the plans may negate the approval of the plant location on the approved plan.
  - Irrigation by automatic or manual systems shall be provided to landscaping to maintain healthy vegetation and fire resistance.

- Landscaping and vegetation in this Zone shall consist primarily of green lawns, ground covers not exceeding six inches in height, and adequately spaced shrubs. The overall characteristics of the landscape shall provide adequate defensible space in a fire environment.
- Plants in Zone A shall be inherently highly fire resistant and spaced appropriately. Species selection should be made referencing the "Fuel Modification Plant List". Other species may be utilized subject to approval. Final or revised plans submitted after six months from the initial submittal will have plants in all zones evaluated based on the most current "Fuel Modification Plant List" available from the fuel modification unit.
- Except for dwarf varieties or mature trees small in stature, trees are generally not recommended within Zone A.
- Target species shall typically not be allowed within 30 or more feet of combustible structures and may require removal if existing on site.
- Vines and climbing plants shall not be allowed on any combustible structure requiring review.

- **Fuel Modification Zone B – Irrigation Zone (30 – 100 feet)**
  - Extends from the outermost edge of Zone A to 100 feet from the structure or as noted on plan.
  - Irrigation by automatic or manual systems shall be provided to landscaping to maintain healthy vegetation and fire resistance.
  - Landscaping and vegetation in this Zone shall consist primarily of green lawns, ground covers, and adequately spaced shrubs and trees.
  - Unless otherwise approved, ground covers shall be maintained at a height not to exceed six inches in Zone B. Twelve (12) inches is acceptable within 50 feet of a structure and 18 inches beyond 50 feet in Zone B if it is on a slope. The overall characteristics of the landscape shall provide adequate defensible space in a fire environment. Specimen native plants may be approved to remain if properly maintained for adequate defensible space. Annual grasses and weeds shall be maintained at a height not to exceed three inches.
  - Plants in Zone B shall typically be fire resistant and spaced appropriately. Species selection should be made referencing the "Fuel Modification Plant List". Other species may be utilized subject to approval.
  - Vegetation in this Zone may consist of modified existing native plants, adequately spaced ornamental shrubs and trees, or both. There may also be replacement landscape planting with ornamental or native species to meet minimum slope coverage requirements of City or County agencies or other landscape or hillside ordinances. In all cases, the overall characteristics of the landscape shall provide adequate defensible space in a fire environment.
  - Target species will typically not be allowed within 30 or more feet of combustible structures and may require removal if existing on site. This distance may extend to 50 feet if the situation dictates.
  - Irrigation systems are not required for this Zone if it consists entirely of native plants.

- All trees, unless otherwise approved, shall be planted far enough from structures and fire department accesses as to not overhang any structures or access at maturity.

- **Fuel Modification Zone C– Thinning Zone (100 – 200 feet)**
  - Extends from the outermost edge of Zone B up to 200 feet from the structure.
  - Required thinning and clearance will be determined upon inspection. Required clearance may increase to the maximum allowed by the Fire Code as needed because of vegetation growth.
  - Irrigation systems are not required for this Zone if it consists entirely of native plants.
  - Vegetation in this Zone may consist of modified existing native plants, adequately spaced ornamental shrubs and trees, or both. There may also be replacement landscape planting with ornamental or native species to meet minimum slope coverage requirements of City or County agencies or other landscape or hillside ordinances. In all cases, the overall characteristics of the landscape shall provide adequate defensible space in a fire environment.
  - Plants in Zone C shall be spaced appropriately. Existing native vegetation shall be modified by thinning and removal of those species constituting a fire risk. These species include, but are not limited to chamise, sage, sage brush, and buckwheat.
  - Annual grasses and weeds shall be maintained at a height not exceed three inches.
  - General spacing for existing native shrubs or groups of shrubs is 15 feet between canopies. Native plants may be thinned by reduced amounts as the distance from development increases.
  - General spacing for exiting native trees or groups of trees is 30 feet between canopies. This distance may increase or decrease depending on the slope, arrangement of the trees in relation to slope, and the species of tree.

- **Emergency Secondary Fire Access Road Zone**
  - Extends a minimum ten feet from the edge of any public or private roadway that may be used as access for fire-fighting apparatus or resources.
  - Clear and remove flammable growth for a minimum of ten feet on each side of fire access roads. Additional clearance beyond teen feet may be required upon inspection.
  - Fire access roads, driveways and turnarounds shall be maintained in accordance with the Fire Code. Fire access roads shall have unobstructed vertical clearance for a width of 20 feet.
  - Landscaping and native plants within the Fire Access Road Zone shall be appropriately spaced and maintained to provide safe egress in wildland fire environments.
  - All trees, unless otherwise approved, shall be planted far enough from the structures and Fire Department accesses as to not overhang any structure or access at maturity.

Associated with the fuel modification plan, the Project would incorporate a landscape plan that utilizes a plant palette consisting of fire retardant plants and native and appropriate non-native drought tolerant species in accordance with the LACFD guidelines. In addition, the fuel modification plan requires the

inclusion of routine maintenance activities in all zones. Requirements include, but are not limited to, those items in the *Fuel Modification Guidelines* and those outlines below:

- Removal or thinning of undesirable combustible vegetation and replacement of dead or dying landscaping to meet minimum brush clearance requirements.
- Pruning or thinning to reduce the overall fuel load and continuity of fuels.
- Fuel loads shall be reduced by pruning lower branches of trees and tree-form shrubs to 1/3 of their height, or 6 feet from the lowest hanging branches to the ground, to help prevent fire from spreading and make maintenance easier. Trees with understory plants should be limbed up at least three times the height of the underlying vegetation or up to a height of 40 feet, whichever is less, to help prevent fire from spreading upward into the crown.
- Accumulated plant litter and dead wood shall be removed. Debris and trimmings produced by thinning and pruning should be removed from the site or chipped and evenly dispersed in the same area to a maximum depth of 6 inches.
- All invasive species and their parts shall be removed from the site.
- Manual and automatic irrigation systems shall be maintained for operational integrity and programming. Effectiveness shall be regularly evaluated to avoid over or under-watering.
- Compliance with the Fire Code is a year-round responsibility. Enforcement will occur following initial inspection by the Fire Department and annually and as needed. Annual inspections for brush clearance code requirements are conducted following the natural drying of grasses and fine fuels, between the months of April and June depending on geographic region. Inspection for compliance with an approved fuel modification plan may occur at any time of the year.
- All future plantings shall be in accordance with the County of Los Angeles Fire Department Fuel Modification Guidelines and approved prior to installation. Changes to the approved plan which require an additional plan review will incur a plan review fee.

The Project proposes a Homeowner's Association (HOA), which would maintain common areas including Project landscaping and fuel modification, but not the natural open space areas. The open space will be managed by a conservancy organization or other agency, which would ensure responsible stewardship.

Another important component of minimizing the risks associated with wildland fires is the ability to provide adequate emergency and firefighter access should a wildland fire occur. Regional access to the Project site is provided via I-5, located approximately 1.6 miles east of the Project site. Local access to the Project site is provided via Pico Canyon Road. The Project also proposes an emergency vehicle access road to the east, connecting with Verandah Court, and serving as a second point of emergency access and evacuation. This emergency access road would be built to meet all minimum fire apparatus access requirements of the County Fire Code. The Emergency Access Road would be gated, which would not encroach into the required access width. The gate would be constructed with a material as designated in the Fire Code and be equipped with an approved locking device. Consistent with County Code Title 21, *Subdivisions*, the Project's roadways would meet all County access requirements for new single-family residential development in a VHFHSZ. The County Fire Code requirements describe the applicable County access standards (i.e., roadway widths, all-weather surface requirements, length of streets, turning requirements, grade restrictions, maintenance requirements, and parking restrictions) that would be implemented by the Project. PDF 7-3 indicates that

the proposed water tank access would provide a minimum paved width of 20 feet. The access maybe reduced to a minimum width of 15 feet if accepted by the Valencia Water Company. Specific fire and life safety requirements would be addressed at the building permit phase when architectural plans are submitted to the Fire Department for review and approval. Also, per PDF 7-4, for the safety of construction personnel, neighboring homes, and firefighting safety in the wildland areas, the Permittee would complete the Project road network in accordance with applicable LACFD and/or County design standards in the area prior to building permit issuance. Based on the above, roadways adequate to provide Fire Department access to land uses on the Project site would be provided, and impacts relating to access would be less than significant with compliance of the County Fire Code and implemention of the applicable PDFs.

It is also imperative that development within a VHFHSZ have adequate water supply and pressure to meet fire flow standards. The Project proposes two 250,000-gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline within Pico Canyon with a secondary point of connection at Verandah Court. The proposed water infrastructure could be utilized for firefighting purposes (see PDF 7-5). Fire sprinkler systems would be installed in all single-family detached homes in accordance with Los Angeles County Building and Fire Code, along with all other applicable department regulation and standard. Fire hydrants would be spaced appropriately per County requirements and installed, tested, and accepted or bonded prior to Final Map approval.

Preliminary review of the Project by the LACFD indicates that the required fire flow would be 1,250 gpm at 20 psi residual pressure for a two-hour duration. If a proposed single-family detached home exceeds a total square footage of 3,600, the fire flow would be determined by Table B105.1 in Appendix B of the Los Angeles County Fire Code, which may require a fire flow up to 5,000 gpm. Existing fire flow levels are provided to the LACFD by the local water purveyor. The LACFD's requirements for fire flows and hydrants would be finalized during the building permit stage. The Project would comply with the preliminary fire flow recommendations of the LACFD. However, to ensure that the Project is provided with adequate fire flow and the necessary infrastructure to combat a fire during a major wildland fire incident, Mitigation Measure 4.7-3 has been prescribed for the Project. The prescribed mitigation requires the Permittee to fund any necessary upgrades to the surrounding water infrastructure to meet fire flow requirements, with the Valencia Water District designing and constructing the necessary upgrades at the Permittee'sexpense. As the Permittee would comply with the requirements of the Fire Department and would pay for any necessary water system upgrades, potentially significant fire flow and infrastructure impacts would be reduced to a less than significant level.

With implementation of the prescribed mitigation measure and the PDFs described above, which are consistent with the applicable regulatory requirements, the Project would minimize to the maximum extent practical the potential for wildland fires. In addition, under existing conditions, no fuel modification exists on the Project site, which exposes the existing single-family residential uses to the east of the site to increased risks of wildland fires when compared to post-Project conditions with fuel modification. Accordingly, with the Project's fuel modification features, the risk of wildland fires to the existing single-family residential uses to the east of the site would be reduced.

Overall, based on these considerations described above, compliance with applicable regulatory requirements and implementation of the PDFs and prescribed mitigation measure would reduce potentially significant impacts regarding wildland fires to a less than significant level.

Mitigation Measures

Mitigation Measure 4.7-3 Prior to Tentative Map recordation, a Preliminary Water System Design Report or equivalent from the Valencia Water Company describing the water supply system, pump system, and fire flow shall be submitted and approved by the LACFD. The Preliminary Water System Design Report shall list the design features that would ensure the required fire flow during a major wildfire incident. The Permittee shall be responsible for funding any necessary water infrastructure upgrades and/or improvements to meet fire flow requirements.

Residual Soil Toxicity

Threshold HAZ-10: Would the Project be located on a site with previous uses that indicate residual soil toxicity of the site, or is the site located within two miles downstream of a known groundwater contamination source within the same watershed?

Impact Statement 4.7-9: Implementation of the Project would not occur on a site with previous uses that indicate residual soil toxicity of the site or within two miles downstream of a known groundwater contamination source within the same watershed. Thus, less than significant impacts would occur in this regard.

As indicated in the Existing Conditions section above, the Project site has not contained any known previous uses that would indicate significant impacts associated with residual soil toxicity. The site is not in any hazardous materials databases, although the DOGGR database indicates the presence of two inactive, "plugged" oil wells on the site. While the Phase I ESA did identify the two inactive oil wells on the site and minimal areas of stained soils, these site conditions were not identified as RECs in the Phase I ESA. The impact analysis under Impact Statement 4.7-2 (above) prescribed mitigation measures to minimize any potential hazards associated with these site conditions. In addition, a review of the SWRCB's GeoTracker and DTSC's EnviroStor websites did not reveal the Project site to be located within two miles downstream of a known groundwater contamination source within the same watershed.[6,7] Thus, impacts would be less than significant in this regard.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (HAZ-1 through HAZ-10) analyzed in this EIR section?

[6] *SWRCB GeoTracker database/website results for Stevenson Ranch accessed December 14, 2014: http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=stevenson+ranch%2C+ca*

[7] *DTSC's EnviroStor database/website results for Stevenson Ranch accessed December 14, 2014: http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=&x=-119&y=37&zl=18&ms=640,480&mt=m&findaddress=True&city=stevenson%20ranch,%20ca&zip=&county=&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&ca_site=true&tiered_permit=true&evaluation=true&military_evaluation=true&school_investigation=true&operating=true&post_closure=true&non_operating=true*

Impact Statement 4.7-10: *The Project combined with the related projects would not result in substantial adverse effects related to hazards and hazardous materials in the Project area. Cumulative hazards and hazardous materials impacts would be less than significant and not cumulatively considerable.*

Section 3.0 of this EIR, the Basis for Cumulative Analysis section, provides the list of related projects identified within the cumulative impacts study area. Any related projects listed in a government hazardous materials database would require site-specific investigations and remediation (if necessary) to adequately address hazardous materials impacts. This would be done to the satisfaction of the regulatory agencies with jurisdiction over the site, thereby precluding the potential for adverse physical effects related to hazardous materials health risks. For instance, soil and groundwater contamination at any of the related project sites would be subject to oversight by the RWQCB, LACFD, DTSC, and/or Environmental Health Division of the County Health Department, as appropriate, while conditions related to oil wells would be subject to oversight by DOGGR.

As discussed in the impacts analysis above, all potentially site-specific impacts related to hazardous materials would be addressed through implementation of the Project's PDFs and prescribed mitigation measures, such that there would be no potential for the Project to substantially contribute to cumulative hazardous materials impacts in the area. Given that related projects would be subject to the same local, regional, State, and Federal regulations pertaining to hazardous materials, the Project would not contribute impacts that are cumulatively considerable regarding hazardous materials.

With regards to cumulative impacts associated with adopted emergency response and evacuation plans, all related projects would be evaluated on a project-by-project basis to determine consistency with applicable plans. For example, all related projects would be required to provide the minimum number of required emergency access roads per applicable regulatory requirements, and any related traffic improvements would be reviewed by the LACFD and the Los Angeles County Department of Public Works for approval of emergency access. The Project would not conflict with any adopted emergency response or evacuation plans and, as such, would not contribute impacts that are cumulatively considerable in this regard.

The Project site and vicinity is located in an area highly prone to wildfires. Similar to the Project, any related project adjacent to an area susceptible to wildland fire hazards would be required to implement a fire protection plans or features consistent with the requirements of the County Fire Code, such as implementation of a Fuel Modification Plan. Mitigation of potential wildland fire hazards is regulated by federal, state, and local requirements, and would be addressed with requirements on an individual basis. Therefore, the Project would not result in cumulatively considerable impacts relative to wildfire hazards.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Hazards and hazardous materials impacts would be less than significant with implementation of the project design features, prescribed mitigation measures, and compliance with applicable regulatory requirements.

This page intentionally blank.

4.8 HYDROLOGY AND WATER QUALITY

This section of the EIR describes relevant regulations and existing conditions and analyzes the Project's potential to result in impacts associated with hydrology and water quality, including: violation of water quality standards; degradation of water quality; construction-related stormwater runoff impacts; operational stormwater runoff impacts; and impacts on beneficial uses in receiving water bodies. Information in this section is in part based on information and findings obtained in the following documents:

- *Hydraulic Study for Stevenson Ranch, County of Los Angeles, TR 052796*, prepared by Alliance Land Planning and Engineering, Inc., April 2015; and
- *Hydrology Report, County of Los Angeles, Aidlin Hills, Tentative Tract No. 52796*, prepared by Alliance Land Planning and Engineering, Inc., April 2015.

A copy of the above-listed reports are included in Appendix H of this EIR.

1. ENVIRONMENTAL SETTING

Regulatory Framework

Federal

Federal Water Pollution Control Act (Clean Water Act [CWA])

The CWA was first enacted in 1948 to (1) restore and maintain the chemical, physical, and biological integrity of U.S. waters by preventing point and non-point pollution sources, (2) provide assistance to publicly owned treatment works for the improvement of wastewater treatment, and (3) maintain the integrity of wetlands. In 1972, the CWA was amended to state that the discharge of pollutants to waters of the United States from any point (such as discharge from an industrial facility) or non-point (surface and farmland water runoff) source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit (see discussion below). In November 1990, the United States Environmental Protection Agency (USEPA) published final regulations that established stormwater permit application requirements for specified categories of industries. With subsequent amendments, current regulations provide that discharges of stormwater to "waters of the United States" from industrial activities and from construction activities that encompass one acre or more of soil disturbance are effectively prohibited unless the discharge is in compliance with a NPDES permit. Federal regulations allow two permitting options for stormwater discharges: individual permits and general permits.

The goal of the NPDES diffuse-source regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of best management practices (BMPs). The NPDES permit system was established in the CWA to regulate point source discharges (a municipal or industrial discharge at a specific location or pipe) and certain types of diffuse source dischargers. As defined in the federal regulations, non-point sources are generally exempt from federal NPDES permit program requirements. Non-point pollution sources diffuse and originate over a wide area rather than from a definable point. Non-point pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Urban stormwater runoff and construction site

runoff, however, are diffuse-sources regulated under the NPDES permit program because they discharge to receiving waters at discrete locations in a confined conveyance system.

CWA Sections 401 and 402 contain general requirements regarding NPDES permits. CWA Section 307 describes the factors that the USEPA must consider in setting effluent limits for priority pollutants. For point source discharges, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. For diffuse-source discharges (e.g., municipal stormwater and construction runoff), the NPDES program establishes a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment to the maximum extent practicable. The NPDES program consists of (1) characterizing receiving water quality, (2) identifying harmful constituents, (3) targeting potential sources of pollutants, and (4) implementing a Comprehensive Stormwater Management Program. State implementation of the NPDES program as it relates to the Project is discussed below under State and Regional regulations.

CWA Section 303(c)(2)(b)

CWA Section 303(c)(2)(b) requires states to adopt water quality standards for all surface waters of the United States based on the water body's designated beneficial use. These water quality standards must be updated on a triennial basis. Where multiple uses exist, water quality standards must protect the most sensitive use.

The USEPA has also delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the NPDES permit program, to the State Water Resources Control Boards (SWRCB). The SWRCB has elected to adopt one statewide general permit for construction activity at this time. The General Construction Activities Stormwater Permit (GCASP) applies to all stormwater discharges associated with construction activity, except for those on tribal lands, those in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (Caltrans). Currently, the GCASP requires all dischargers, where construction activity disturbs one acre or more, to conduct the following:

- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies BMPs that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States; and
- Perform inspections of all BMPs.

CWA Section 303(d) and Total Maximum Daily Loads (TMDLs)

CWA Section 303(d) bridges the technology-based and water quality-based approaches for managing water quality. Section 303(d) requires that states make a list of waters that are not attaining standards after the technology-based limits are put in place. For waters on this list (and where the USEPA administrator deems they are appropriate), the states are to develop TMDLs. TMDLs are established at the level necessary to implement applicable water quality standards. A TMDL must account for all sources of pollutants that cause the water to be listed. Federal regulations require that TMDLs, at a minimum, account for contributions from point sources and nonpoint sources. Pursuant to this requirement, the SWRCB has adopted a list of impaired water bodies (the 303(d) list) for the State of California identifying water quality impairments including

trash, metals, pathogens, and organic pesticides. Nearby water bodies to the Project site are discussed in the Existing Conditions subsection below.

State/Regional

State Water Resource Control Board

The SWRCB was established through the California Porter-Cologne Water Quality Act of 1969. At the State level, the SWRCB has responsibility for the protection of water quality. The SWRCB sets statewide policies and regulations for the implementation of water quality control programs mandated by federal and State water quality statutes and regulations.

The SWRCB delegates to the nine (9) Regional Water Quality Control Boards (RWQCBs) the responsibility for the protection of water quality in each major drainage basin throughout the State. The Los Angeles (LA) RWQCB has jurisdiction over the coastal drainages in and near the Project site. A more detailed discussion of the LARWQCB is presented below.

CWA Section 401 requires water quality certification from the SWRCB or from a RWQCB when the project requires a CWA Section 404 permit. CWA Section 404 requires a permit from the U.S. Army Corps of Engineers (USACE) to discharge dredged or fill material into "waters of the United States."

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and each RWQCB as the principal State agencies for coordinating and controlling water quality in California. Specifically, the Porter-Cologne Water Quality Control Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and groundwaters) and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative.

National Pollutant Discharge Elimination System

Construction

The CWA requires coverage under a NPDES construction permit for stormwater discharges to surface waters associated with various construction activities, except activities that result in disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale. The NPDES construction permit requires implementation of Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate pollutants in stormwater runoff. The NPDES construction permit also includes additional requirements necessary to implement applicable water quality standards.

A new General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) was adopted in 2009 by the SWRCB and became effective July 1, 2010.[1] The Construction

[1] *State Water Resources Control Board NPDES General Permit for Discharges Associated with Construction Activity (Water Quality Order No. 2009-0009-DWQ)*

General Permit regulates construction activities, such as clearing, grading, and excavation, resulting in soil disturbance of at least one acre of total land area.[2] The Construction General Permit prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges, and prohibits all discharges that contain a hazardous substance in excess of reportable quantities established in 40 CFR Section 117.3 and 40 CFR Section 302.4, unless a separate NPDES permit has been issued to regulate those discharges. The changes to the Construction General Permit were designed to increase water quality protection and added a Risk-Based Permitting Approach by establishing three levels of risk possible for a construction site and imposing more stringent requirements. Each project is evaluated for sediment discharge risk and receiving water risk. These factors combine to determine the project Risk Level or LUP Segment Risk Type (1, 2, or 3). LUPs can be multiple segments with different Risk Types. Permit requirements progressively increase with risk level/type.

In order to obtain coverage under the Construction General Permit, Permit Registration Documents (PRD) must be electronically filed for all new projects using the Stormwater Multiple Applications and Report Tracking System (SMARTS), and must include: a Notice of Intent (NOI), Risk Assessment, Site Map, and Stormwater Pollution Prevention Plan (SWPPP). PRDs will be publically available through SMARTS.

The SWPPP identifies potential pollutant sources that may affect the quality of discharge associated with construction activity, attempts to eliminate or reduce non-stormwater discharges using Source Control Measures approved by the County, and designs the use and placement of BMPs to effectively prohibit the entry of pollutants from the project site into the public storm drain system during construction. The BMPs typically address minimization of erosion during construction, stabilization of construction areas, sediment control, control of pollutants from construction materials, and post-construction management (e.g., the minimization of impermeable surfaces, treatment of runoff, etc.). The SWPPP must include a discussion of the program to inspect and maintain all BMPs. As construction progresses and as conditions warrant, the SWPPP may require modification by the construction contractor.

Once construction of a project is complete, a Notice of Termination must be filed with the SWRCB certifying that all state and local requirements have been met in accordance with the requirements of the Construction General Permit.

Operation

In accordance with Section 402(p) of the Clean Water Act, municipal NPDES permits prohibit the discharge of non-stormwater pollutants except under certain conditions and require controls to reduce pollutants in stormwater discharges to the maximum extent practicable. Such controls include BMPs, as well as system design and engineering methods. A municipal NPDES permit was issued to the County and 84 incorporated cities in December 2001.[3] The Los Angeles County Municipal NPDES Permit requires implementation of the Storm Water Quality Management Program prepared as part of the NPDES approval process. The Storm Water Quality Management Program requires the County and the 84 incorporated cities to:

[2] *Soil disturbance activities include clearing, grading, and disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility.*

[3] *Los Angeles County Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS0041)*

- Implement a public information and participation program to conduct outreach on stormwater pollution;
- Control discharges at commercial/industrial facilities through tracking, inspecting, and ensuring compliance at facilities that are critical sources of pollutants;
- Implement a development planning program for specified development projects;
- Implement a program to control construction runoff from construction activity at all construction sites within the relevant jurisdictions;
- Implement a public agency activities program to minimize stormwater pollution impacts from public agency activities; and
- Implement a program to document, track, and report illicit connections and discharges to the storm drain system.

Under the Los Angeles County NPDES Permit (MS4 Permit), permittees are required to implement a development planning program to address stormwater pollution. These programs require project applicants for certain types of projects to implement Low Impact Development (LID) requirements throughout the operational life of the project. The purpose of the LID requirements are to reduce the discharge of pollutants in stormwater by outlining BMPs which must be incorporated into the design plans of new development and redevelopment. In combination, these treatment control BMPs must be sufficiently designed and constructed to treat or filter the first 0.75 inch of stormwater runoff from a storm event.

A project is subject to LID requirements if it falls under one of the categories listed below:

1. Single-family hillside residential developments of one acre or more of surface area;
2. Housing developments of 10 units or more;
3. A industrial/commercial development involving 100,000 square feet or more impervious surface area;
4. Automotive service facilities with 5,000 square feet or more of surface area;
5. Retail gasoline outlets with 5,000 square feet or more impervious surface area and with projected averaged daily traffic of 100 or more vehicles;
6. Restaurants of 5,000 square feet or more of surface area;
7. Parking lots of 5,000 square feet or more of surface area or with 25 or more parking spaces;
8. Projects located adjacent to or discharging directly to an Environmentally Sensitive Area that meets the following threshold conditions: discharge stormwater and urban runoff that is likely to impact a sensitive biological species or habitat; and create 2,500 square feet or more of impervious surface area; and
9. Redevelopment projects in subject categories that meet redevelopment thresholds.

The Project, being a hillside residential development with 102 proposed dwelling units, would require preparation of LID requirements.

To minimize the impact of stormwater discharges from industrial facilities, the NPDES program also includes an industrial stormwater permitting component. Operators of industrial facilities are required to have authorization under a NPDES industrial stormwater permit. None of the existing or proposed activities on the Project site require coverage under the General Industrial Permit.

Los Angeles Basin Plan

As required by the California Water Code, the LARWQCB has adopted a plan entitled Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan). The Basin Plan designates beneficial uses for bodies of water, sets quantitative and/or qualitative water quality objectives necessary to protect the beneficial uses, addresses localized water quality problems, and establishes a plan to protect water quality. The Basin Plan includes implementation provisions, programs, and policies to protect all waters in the Los Angeles region. General discharge permits issued by the LARWQCB under the Basin Plan are used to regulate polluted stormwater runoff, treated groundwater, non-hazardous soil disposal, and other discharges.

Areas of Special Biological Significance

Areas of Special Biological Significance (ASBS) are State water quality protection areas outlined in the California Ocean Plan and comprise 34 ocean areas monitored and maintained for water quality by the State Water Resources Control Board. ASBS cover much of the length of California's coastal waters. They support an unusual variety of aquatic life, and often host unique individual species. The ASBS were designated in an effort to preserve these biologically unique and sensitive marine ecosystems. ASBS are basic building blocks for a sustainable, resilient coastal environment and economy. State regulations mandate that there shall be no “discharge of waste” into ASBS, and that these areas shall maintain “natural water quality.”

County of Los Angeles

County of Los Angeles Hydrology Manual

Drainage and flood control in the vicinity of the Project site is regulated by the Los Angeles County Department of Public Works (LACDPW). LACDPW has jurisdiction over regional drainage facilities and local drainage facilities within the unincorporated portions of the County. The LACDPW 2006 Hydrology Manual requires a storm drain conveyance system be designed for a minimum 25-year storm event and the combined capacity of a storm drain and street flow system accommodate flows from a 50-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flows from a 50-year storm event. The County also limits the allowable discharge into existing storm drain facilities. Any proposed drainage improvements of County-owned storm drain facilities, such as catch basins and storm drain lines, require review and approval from the County Flood Control District. The LACDPW Hydrology Manual also provides various analysis tools and calculation methodologies required for hydrologic evaluations.

Low Impact Development Ordinance

On November 18, 2008, the Los Angeles County Board of Supervisors passed the LID ordinance. Chapter 12.84 of the County Code requires the use of LID principles in development projects. LID encourages site sustainability and smart growth in a manner that respects and preserves the characteristics of the County's watersheds, drainage paths, water supplies and natural resources. LID builds on conventional design strategies by using every softscape and hardscape surface in the development to perform a beneficial hydrologic function by retaining, detaining, storing, changing the timing of, or filtering stormwater and urban runoff. LID encompasses the use of structural devices, engineered systems, vegetated natural designs, and education in order to distribute stormwater and urban runoff across a development site.

Over the past decade, LID has emerged along with technologies and practices to control stormwater and urban runoff at the source rather than centralized, end-of-pipe controls. LID relies on an integrated system of decentralized, small-scale control measures. These measures range from site design practices to technology-driven LID BMPs. The underlying principle of LID is that undeveloped land does not present a stormwater runoff or pollution problem. The evolved natural hydrology of any given site manages water in the most efficient manner. This most often translates to high rates of infiltration, vegetative interception, and evapotranspiration.

LID attempts to offset the effects of development and changes in land cover by preserving or restoring predevelopment hydrology and water quality through a series of small-scale, decentralized, natural, and engineered controls at or near the point where the stormwater is generated. It is a source control option that minimizes stormwater pollution by recognizing the greatest efficiencies are gained by minimizing stormwater generation. This is a process that begins with functional conservation of watershed resources, reducing impacts of development, and then using innovative management practices to meet the stormwater objective. Site preservation practices coupled with small-scale BMPs that rely on the environmental services of vegetation and soils, or systems that mimic these services, comprise the control approach of LID. These practices, taken in aggregate, limit the observed hydromodification on a developed site and present a more comprehensive and beneficial control approach.

To appropriately implement LID, it is important to assess its role in water quality protection. LID is one part of a toolkit that can be used to better manage natural resources and limit the pollution delivered to waterways. It is not independent of watershed planning. To gain optimal benefits, LID must be integrated with appropriate land use programs. LID, by itself, will not deliver the water quality outcomes desired; yet, it provides enhanced stormwater treatment and mitigates excess volume and flow rates. However, if not integrated in a comprehensive fashion, LID techniques can end up as a series of uncoordinated innovative BMPs that have limited water quality benefits.

The following site design elements are used to frame the LID approach to stormwater. These elements are addressed through a combination of BMPs.

- Conserve natural areas, soils, and vegetation—Protect areas outside grading limits, incorporate plants to suit soil and drainage conditions, incorporate planting schemes that replicate natural sites, and use vegetative plantings and bioremediation techniques to neutralize soil contaminants.

- Minimize disturbances to natural drainage patterns—Minimize manicured lawns and annual beds as the dominant site elements.
- Minimize and disconnect impervious surfaces—Reduce impervious areas by including landscaping and using pervious pavements where practicable. Reduce the amounts of "hydraulically" connected impervious areas by using downspouts directed toward vegetated areas and installing rain barrels and cisterns below downspouts. Direct runoff from impervious areas to pervious areas. Grade surfaces toward open space with infiltration capacity, and infiltrate runoff a suitable distance from foundations.
- Minimize soil compaction—Restrict compaction and grading to areas that will support structures, as compacted soils suffer from reduced infiltration rates and limit root growth and plant survivability.

County Code

Stormwater runoff and pollution regulations are controlled pursuant to Los Angeles County Code Section 12.80 (*Stormwater and Pollution Runoff Control*). The purpose of Section 12.80 is to protect the health and safety of the residents of the County by protecting the beneficial uses, marine habitats, and ecosystems of receiving waters within the County from pollutants carried by stormwater and non-stormwater discharges. The intent of this chapter is to enhance and protect the water quality of the receiving waters of the County and the United States. Section 12.80 applies to the discharge, deposit, and disposal of any stormwater and/or runoff to the storm drain system and/or receiving waters within any unincorporated area covered by a NPDES municipal stormwater permit.

Existing Conditions

General Site and Surrounding Land Use Characteristics

The Project site is primarily vacant and consists of undeveloped terrain with moderate to steep variations in topography. The elevations of the site range from approximately 1,475 feet to 2,250 feet above mean sea level. Topography is generally depicted sloping downward toward the northeast. Several small-to-medium drainage courses traverse through the site (described below). Also, a concrete-lined drainage channel traverses the northeast portion of the site. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grasslands in the process of transition as they recover from a wildfire in 2010. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site. A water well and apparent plugged/abandoned oil wells occur along the unimproved road in the northern and central portions of the site, respectively. Various unimproved access roads and trails traverse though the site.

A 254 single-family residential community, Southern Oaks, abuts the Project site on the east. The area to the west of the Project site is mostly undeveloped within Pico Canyon, but this area includes the remaining historic buildings of Mentryville and the Pico Canyon Oil Field Well No. 4.

Hydrology/Drainage

Two Unites States Geological Survey (USGS)-designated streams occur within the project area. These streams occur within Pico and Wickham Canyons. All existing storm flows on the Project site drain through the natural drainage courses of Wickham Canyon Creek and Pico Canyon Creek. Pico Canyon Creek enters

the northeast corner of the project area and exits along the eastern boundary. An unnamed tributary initiates within the project area and exits in the northwest corner, where it joins Pico Canyon Creek off-site. Wickham Canyon Creek, which is a named tributary to Pico Canyon Creek, enters in the southeastern corner of the project area and continues north until its confluence with Pico Canyon Creek in the northeastern corner of the project area. Wickham Canyon Creek and its tributaries are located throughout the eastern portion of the project area and drain the majority of the site. **Figure 7,** *CDFW Jurisdictional Limits*, in Appendix C, *Biological Resources Assessment*, of this EIR illustrates the locations drainage areas within the site that are under California Department of Fish and Wildlife Service (CDFW) jurisdiction.

Given the topography of the area, the site likely receives runoff during storm events from adjacent and nearby upgradient properties to the south and east. Surface runoff at the site generally drains toward the northeast and enters a concrete-lined flood control channel for Pico Canyon Creek. The channel crosses the northeastern portion of the site on the north side of Pico Canyon Road and drains to the east. Stormwater in the channel passes through a series of retention/infiltration treatment basins and the County's municipal storm drain system before ultimately being discharged into the Santa Clara River. As discussed below, the Santa Clara River is identified on the Clean Water Act Section 303(d) List as an impaired water body for various pollutants.

Flow Rates and Volumes

The Hydrology Report prepared for the Project evaluated the flowrates and volumes of the Project site under 2-, 5- 10- 25- and 50-year flood conditions. Each condition was modeled under clear (no potential to burn) and burned (post wildfire) conditions.

Three (3) major on-site basins are delineated in the hydrologic study: A, B, and C. The majority of Basin A and Basin B remain unchanged between the undeveloped and developed condition models. All development occurs in Basin C of the model. Basins A and Basin B are only affected along their boundaries with Basin C. The locations of the basins in the model are illustrated in the "Undeveloped Condition Drainage Map - Sheet 1" in Appendix D of the Hydrology Report.

The time of concentrations (TC) were calculated using County of Los Angeles "HydroCalc" software. Flow rates were calculated using the Modified Rational method (depth method) for the County of Los Angeles. Please refer to the Hydrology Report for the other model assumptions for the various storm year scenarios. The existing "clear" flowrates for the undeveloped site condition are presented in **Table 4.8-1**, *Existing Condition Clear Flows (cfs)*. **Table 4.8-2**, *Existing Condition Burned Flows (cfs)*, presents the existing "burned" flowrates for the undeveloped site condition. The numbers cited in these tables and below have been rounded per USGS standards.

Table 4.8-3, *Existing Condition Clear Volumes (ac-ft)*, presents the existing clear storm volumes for the undeveloped site condition.

Table 4.8-1

Existing Condition Clear Flows (cfs)

Basin	Area (Acres)	2-Year	5-Year	10-Year	25-Year	50-Year
A, B & C	2,149.0	74	390	890	1,910	2,950

Notes:

cfs = cubic feet per second

Source: Hydrology Report, prepared by Alliance Land Planning and Engineering, Inc., January 2015

Table 4.8-2

Existing Condition Burned Flows (cfs)

Basin	Area (Acres)	2-Year	5-Year	10-Year	25-Year	50-Year
A, B & C	2,149.0	170	660	1,310	2,500	3,660

Notes:

cfs = cubic feet per second

Source: Hydrology Report, prepared by Alliance Land Planning and Engineering, Inc., January 2015

Table 4.8-3

Existing Condition Clear Volumes (ac-ft)

Basin	Area (Acres)	2-Year	5-Year	10-Year	25-Year	50-Year
A, B & C	2,149	23.92	73.67	129.39	242.73	367.34

Notes:

ac-ft = acre-feet

Source: Hydrology Report, prepared by Alliance Land Planning and Engineering, Inc., January 2015

Groundwater

The Project site is located in Township 3 North, Range 16 West, Section 6, within the Eastern Hydrologic Subarea of the Upper Santa Clara River watershed of Los Angeles County. [4] The site is also within the Santa Clara River Valley East groundwater basin.[5] Groundwater within the Santa Clara River Valley East Basin has existing beneficial uses for municipal, industrial process, industrial service, and agricultural purposes.[6]

[4] *Geologic/Geotechnical Evaluation for Environmental Impact Report Vesting Tentative Tract Map No. 52796, Los Angeles County, California (also referred to as the "Geotechnical Evaluation" in Section 4.5 of this EIR), prepared by R.T. Frankian & Associates, dated April 3, 2014.*

[5] *Phase I Environmental Site Assessment (referred to as the "Phase I ESA" in Section 4.7 of this EIR), prepared by Advantage Environmental Consultants, LLC, March 2014.*

[6] *Los Angeles Basin Plan, Table 2-2, Beneficial Uses of Ground Waters. 1994.*

On the site, groundwater occurs in the alluvial deposits within Pico Canyon and major tributary canyons. Data from the Water Resources Division of Los Angeles County Department of Public Works (LACDPW) indicates that one water well was located within the site boundaries. This well, designated as Well No. 5802, was located within the floodplain of Pico Canyon, south of Pico Canyon Road. The water level data from this well is limited to one measurement only, obtained on April 11, 1950. The water level at that time was measured at a depth of 22 feet below existing ground surface (corresponding to water surface elevation of approximately 1,472 feet below mean sea level). Based on a 1999 environmental site investigation, groundwater beneath the site is anticipated to be present in the valley fill at a depth of approximately 15 to 20 feet below ground surface with a flow anticipated to follow the topographic gradient toward the northeast. At higher surface elevations at the site, groundwater is expected to be present at depths of greater than 50 feet below existing grades. The depth and flow of groundwater beneath the site may vary with seasonal rainfall, groundwater pumping rates, bedrock structure, local faulting, and other factors.[7]

Groundwater was not encountered in any of the exploratory borings within Wickham Canyon conducted for the current Geotechnical Evaluation presented in Chapter 4.5 of this EIR.

Water Quality

Storm water discharges from the urbanized areas in the County consist mainly of surface runoff from residential, commercial, and industrial developments. In the project vicinity, storm water discharges also include stormwater discharges from undeveloped lands.

Urban runoff pollutants include a wide array of environmental, chemical, and biological compounds from both point and nonpoint sources. Point sources of water pollution come from a single, discrete place, such as a pipe. Nonpoint source pollution comes from many diffuse sources and generally results from land runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification. In addition to trash and debris, common pollutants of concern that have the potential to affect water quality generally fall into one of the following seven categories: sediments, nutrients, bacteria/viruses, oil/grease, metals, organic compounds, and pesticides. These pollutants of concern are described below:

- **Sediment** is a common component of stormwater and can be a pollutant. Sediment can be detrimental to aquatic life (primary producers, benthic invertebrates, and fish) by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange in water bodies. Sediment can transport other pollutants that are attached to it, including nutrients, trace metals, and hydrocarbons. Sediment is the primary component of total suspended solids, a common water quality analytical parameter.
- **Nutrients** including nitrogen and phosphorous are the major plant nutrients used for fertilizing landscapes and are often found in stormwater. These nutrients can result in excessive or accelerated growth of vegetation, such as algae, resulting in impaired use of water in lakes and other sources of water supply. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.
- **Pathogen**s, such as bacteria and viruses, are common contaminants of stormwater. For separate storm drain systems, sources of these contaminants include animal excrement and sanitary sewer

[7] *Geologic/Geotechnical Evaluation for Environmental Impact Report Vesting Tentative Tract Map No. 52796, Los Angeles County, California, prepared by R.T. Frankian & Associates, dated April 3, 2014.*

overflow. High levels of indicator bacteria in stormwater have led to the closure of beaches, lakes, and rivers to contact recreation such as swimming.

- **Oil and grease** include a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. Sources of oil and grease include leakage, spills, cleaning and sloughing associated with vehicle and equipment engines and suspensions, leaking and breaks in hydraulic systems, restaurants, and waste oil disposal.
- **Metals** including lead, zinc, cadmium, copper, chromium, and nickel are commonly found in stormwater. Many of the artificial surfaces of the urban environment (e.g., galvanized metal, paint, automobiles, or preserved wood) contain metals, which enter stormwater as the surfaces corrode, flake, dissolve, decay, or leach. Over half the trace metal load carried in stormwater is associated with sediments. Metals are of concern because they are toxic to aquatic organisms, can bioaccumulate (accumulate to toxic levels in aquatic animals such as fish), and have the potential to contaminate drinking water supplies.
- **Organic compounds** may be found in stormwater in low concentrations. Often synthetic organic compounds (e.g., adhesives, cleaners, sealants, solvents, etc.) are widely applied and may be improperly stored and disposed. In addition, deliberate dumping of these chemicals into storm drains and inlets causes environmental harm to waterways.
- **Pesticides** (including herbicides, fungicides, rodenticides, and insecticides) have been repeatedly detected in stormwater at toxic levels, even when pesticides have been applied in accordance with label instructions. As pesticide use has increased, so too have concerns about the adverse effects of pesticides on the environment and human health. Accumulation of these compounds in simple aquatic organisms, such as plankton, provides an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in organisms that feed on them, such as fish and birds.

In undeveloped areas, runoff typically consists primarily of suspended sediments, fertilizers and pesticides, and animal waste.

The most recent list of local runoff pollutants is included in the 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) — Statewide.[8] The Santa Clara River Reach 5, located approximately 3.5 miles north of the Project site and generally west of the 5 Freeway, is listed as an impaired waterway for chloride, coliform bacteria, and iron. Also, Santa Clara River Reach 6, east of the 5 Freeway, is listed as an impaired waterway for chloride, chlorpyrifos, coliform bacteria, copper, diazinon, iron and toxicity.[9] Despite its impaired status, the Santa Clara River (Reaches 5 and 6) also has listed beneficial uses in the Basin Plan as follows: Municipal and Domestic Supply (MUN) –potentially; Industrial Process Supply (PROC); Industrial Service Supply (IND); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH); Warm Freshwater Habitat (WARM); Wetland Habitat (WET); Wildlife Habitat (WILD); and Rare, Threatened, or Endangered Species (RARE).[10]

---

[8] *California State Water Resources Control Board website: http://www.swrcb.ca.gov/water_issues/programs/tmdl/integrated2010.shtml Accessed December 15, 2014.*

[9] *Toxicity for Santa Clara River Reach 6 relates to significant Ceriodaphnia dubia toxicity exceeding allowable frequency, which is a species of water flea in the class Branchiopoda, living in freshwater lakes, ponds, and marshes in most of the world and the species is used in toxicity testing of wastewater treatment plant effluent water.*

[10] *Los Angeles Basin Plan, Table 2-1, Beneficial Uses of Inland Surface Waters. Nov. 2011.*

Currently, there are no known significant pre-existing water quality problems from surface water runoff associated with the Project site.

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provide thresholds of significance to determine whether a project would have a significant environmental impact regarding hydrology and water quality. Based on the size and scope of the Project and the potential for hydrology and water quality impacts, the thresholds below are included for evaluation in this EIR.

Would the Project:

Threshold HWQ-1: Violate any water quality standards or waste discharge requirements? (refer to Impact Statement 4.8-1);

Threshold HWQ-2: 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)? (refer to Impact Statement 4.8-2);

Threshold HWQ-3: 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 on- or off-site? (refer to Impact Statement 4.8-3);

Threshold HWQ-4: 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 on- or off-site? (refer to Impact Statement 4.8-3);

Threshold HWQ-5: Add water features or create conditions in which standing water can accumulate that could increase habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use? (refer to Impact Statement 4.8-1);

Threshold HWQ-6: Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (refer to Impact Statement 4.8-3);

Threshold HWQ-7: Generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality? (refer to Impact Statement 4.8-1);

Threshold HWQ-8: Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)? (refer to Impact Statement 4.8-3);

Threshold HWQ-9: Result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance? (refer to Impact Statement 4.8-1);

Threshold HWQ-10: Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)? (refer to Impact Statement 4.8-4);

Threshold HWQ-11: Otherwise substantially degrade water quality? (refer to Impact Statement 4.8-1);

Threshold HWQ-12: 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, or within a floodway or floodplain? (refer to Impact Statement 4.8-5);

Threshold HWQ-13: Place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain? (refer to Impact Statement 4.8-5);

Threshold HWQ-14: 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? (refer to Impact Statement 4.8-5); and

Threshold HWQ-15: Place structures in areas subject to inundation by seiche, tsunami, or mudflow? (refer to Impact Statement 4.8-6).

Methodology

This analysis of water quality impacts is based on information from the Hydrology Report and Hydraulic Study, which were prepared by Alliance Land Planning and Engineering, Inc. and are provided in Appendix H of this Draft EIR. The reports were prepared based on a review of documents from and methodologies specified by the Los Angeles County Department of Public Works (LACDPW), including the Low Impact Development Standards Manual (LID Manual) (February 2014), for use in developing BMPs for the Project.

The analysis of water quality impacts identifies the types of pollutants potentially associated with construction and operation of the Project and considers their effects on water quality. Consideration is given to the Project Design Features (PDFs) to be implemented, including BMPs, which would serve to minimize pollutants in stormwater runoff.

Project Design Features

The following project design features (PDFs) would be reflected in the Final Project plans and would be included in the Mitigation Monitoring and Reporting Program (MMRP) for the Project. These features would prevent the occurrence and/or minimize the significance of hydrology and water quality impacts.

Hydrology

PDF 8-1: The Project shall direct storm flows by closed pipe to a bio-infiltrataion basin or directly to storm drain inlets for high flow events. The bio-filtration basin would be located at the southeast corner of Pico Canyon Road and "A" Street. All water quality flows shall go to the bio- infiltration basin prior to entering the public storm drain system. The water quality basin would be designed with high flow bypasses to insure no damage to adjacent homes or slopes. The proposed condition would outlet all storm flows to the Pico Canyon Road drainage system. The County of Los Angeles would be the entity in charge of maintenance for this structure.

PDF 8-2: Pico Canyon Creek - Double 18'W x 12'H Concrete Box Culvert @ 348 feet long. This culvert would run below the proposed intersection of Pico Canyon Road and "A" Street. This culvert is proposed as a double box (each box at 18 ft wide by 12 ft high) and would be sized with a 2-foot-thick intermediate wall and 1-foot-thick outer side and top walls (as an initial assumption). This culvert would designed to be self cleaning for sediment transport purposes during the 50-YR Burned and Bulk (BB) capital event. This culvert would outlet approximately 220 feet upstream of the inlet of the existing 24'W x 14'H box culvert structure of private drain (PD) 2495. Grouted riprap shall be installed at the proposed Pico Canyon Road culvert outlet apron, as well as wingwalls to reduce velocity at the inlet of the existing 24'W x 14'H reinforced concret box (RCB).

PDF 8-3: Wickham Canyon Creek #1– Single 12'W x 12'H Concrete Box @ 210 feet long. This culvert would run below pad slope grading and the proposed "A" Street. This culvert would outlet directly into Pico Canyon Creek approximately 125 feet upstream of the inlet for the larger double box culvert at Pico Canyon Road. The outlet structure of this culvert would be orientated at an efficient angle with the flow path of Pico Canyon Creek to minimize junction losses in this area. This culvert would be designed to be self cleaning for sediment transport purposes during the 50-YR BB capital event. The culvert would operate under Inlet Control and be equipped with a riprap lined outlet.

PDF 8-4: Wickham Canyon Creek #2– 12'W x 12'H Arch Bridge. This bridge would span over Wickham Canyon Creek along the proposed Verandah Court roadway corridor and would be upstream of the Wickham Canyon Creek #1 culvert. Alignment would be approximately perpendicular to that of the road.

Construction

As the Project would involve the disturbance of more than one acre, in compliance with NPDES and County requirements, the Permittee would file an NOI with the SWRCB and prepare a SWPPP prior to the commencement of construction. The SWPPP would: (1) require the implementation of BMPs to prevent a net increase in sediment load in stormwater discharges as compared to pre-construction levels; (2) prohibit discharges of stormwater or non-stormwater at levels that would cause or contribute to an exceedance of any applicable water quality standard contained in the Basin Plan; (3) discuss in detail the BMPs to be implemented to control sediment and erosion, non-sediment pollutants, and potential pollutants in non-stormwater discharges; (4) describe post-construction BMPs for the Project; (5) describe the monitoring and

maintenance program for the BMPs; (6) require reporting of violations to the LARWQCB; and (7) list the parties responsible for implementation of the SWPPP and BMP maintenance, both during and after construction. Upon acceptance of the NOI by the SWRCB, the Permittee would implement the SWPPP in compliance with the Construction General Permit. A variety of construction BMPs would be specified within the SWPPP which would, at a minimum, address the following:

- Erosion control—Measures would be employed to prevent the movement of soil by wind or water during construction and might include watering and erecting physical barriers to the movement of soil particles. For example:
    - Silt fencing and straw bale barriers would be placed along the perimeter of the area to be cleared and graded before any clearing or grading takes place. Super silt[11] fencing would be used on steep slopes at appropriate locations, if necessary.
    - Gravel bag berms consisting of a series of gravel-filled bags placed on a level contour to intercept sheet flows could be utilized to pond sheet flow runoff, allowing sediment to settle out, and release runoff slowly as sheet flow, preventing erosion.
    - Sediment traps or filters would be placed to provide containment areas where sediment-laden runoff can be temporarily detained under quiescent conditions, allowing sediment to settle out or before the runoff is discharged by gravity flow.
    - Check dams would be constructed of rock, gravel bags, sandbags, fiber rolls, or other proprietary products, to form a small barrier across a constructed swale or drainage ditch. Check dams reduce the effective slope of the channel, thereby reducing scour and channel erosion by reducing flow velocity and increasing residence time within the channel, allowing sediment to settle.
- Tracking of soil—Measures would be employed to effectively minimize the tracking of soil by vehicles and might include the use of gravel driveways, wheel washing, and street sweeping. For example:
    - The paved street adjacent to the site entrance would be swept daily to remove excess mud, dirt, or rock tracked from the site.
    - A stabilized construction entrance would be constructed to reduce vehicle tracking of sediments.
    - Gravel driveways would be utilized to minimize contact with soils that may come into contact with tires,
    - Prior to leaving the site, construction vehicles would be inspected and put through procedures as necessary to remove loose debris from tire wells and on the truck exterior.
- Wastes and cleanup—Measures would address washout, cleanup, and disposal related to debris, trash, concrete, asphalt, paint, coatings, solvents, and other materials applicable to site preparation and construction. For example:
    - All personnel would be instructed regarding the correct procedure for waste disposal.

- Spill control practices would be followed during construction to minimize storm water contamination from petroleum products, fertilizers, paints, and concrete. Good housekeeping practices are listed below.
  - All vehicles on site would be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.
  - Petroleum products would be stored in tightly sealed containers which are clearly labeled.
  - Spill kits would be included with all fueling sources and maintenance activities.
  - Any asphalt substances used onsite would be applied according to the manufacturer's recommendation.
  - Sanitary waste would be collected from portable units a minimum of two times a week to avoid overfilling.
  - A covered dumpster would be used for all waste materials.
  - All paint containers and curing compounds would be tightly sealed and stored when not required for use. Excess paint would not be discharged to the storm system, but would be properly disposed according to the manufacturer's instructions.
  - Materials and equipment necessary for spill cleanup would be kept in the temporary material storage trailer onsite. Equipment would include, but not be limited to, brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, saw dust, and plastic and metal trash containers.
  - Spray guns would be cleaned on a removable tarp.
  - All spills would be cleaned up immediately upon discovery.
  - Concrete trucks would not be allowed to wash out or discharge surplus concrete or drum wash water on the site.
  - No construction materials would be buried on-site.

- Other reasonable BMPs—The SWPPP would implement other BMPs, as needed, to keep pollutants out of stormwater. The SWPPP would identify additional measures to be implemented during the rainy season and anticipated storms. Likely BMPs to be implemented are wind erosion control for dust supression, stabilized construction entrances to reduce the potential for tracking mud or dirt onto public roads, protection of storm drain inlets to allow sediment to settle, temporary check dams to reduce the potential for channel scouring, silt fencing, and sediment traps, gravel bag berms or fiber rolls for erosion prevention,

Structural BMPs would be coordinated with construction activities so the BMP is in place before construction begins. The following BMPs would be coordinated with construction activities:

[11] *Silt fencing is a temporary sediment control device used on construction sites to protect water quality in nearby streams, rivers, lakes, and seas from sediment in stormwater runoff. Super silt fencing is a reinforced fence, or enhanced silt fence. This design uses filter fabric reinforced by a wire mesh or chain link fence. Super silt fencing is used to handle more extreme erosion conditions.*

- The temporary perimeter controls (silt fences and straw bales) would be installed before any clearing and grading begins. The temporary perimeter controls (silt fencing and straw bales) would not be removed until all construction activities at the site are complete and soils have been stabilized.
- Clearing and grading would not occur in an area until it is necessary for construction to proceed.
- The stabilized construction site entrance would be constructed before clearing and grading begins.
- Once construction activity ceases permanently in an area, that area would be stabilized with permanent seed and mulch.

Operation

The Permittee would also prepare and implement a LID Plan to address water quality issues during ongoing operation of the Project. The LID requirements would: (1) describe the routine and special post-construction BMPs to be implemented within the Development Area, including both structural and non-structural BMPs; (2) describe responsibilities for initial implementation and the long-term maintenance of the BMPs; (3) provide a narrative with graphic materials as necessary to specify the locations of the structural BMPs to be introduced; and (4) describe effective means to ensure the LID requirements are carried out by the Permittee and its future successors or assignees. The LID requirements would include the following and/or similar BMPs to be implemented during operation of the Project:

Infiltration BMPs

Infiltration Water Quality Basin – The Project would include an infiltration basin to retain flows and provide water quality treatment.

Non-Structural Source Control BMPs

- Education for Property Owners, Tenants, and Occupants - The Project's HOA would provide environmental awareness education materials, as attached to the Final LID requirements, to all home owners and grounds maintenance personnel annually, and at staff changes. These materials would describe the use of chemicals (including household types) that should be limited to the property with no discharge of specified wastes via hosing or other direct discharge to gutters, catch basins and storm drains. The HOA would provide information to the maintenance crew on general good housekeeping practices that contribute to protection of storm water quality. Thereafter, such materials would be available through the Project's HOA education program.
- Activity Restrictions –Conditions, Covenants, and Restrictions (CC&Rs) would be prepared for the purpose of surface water quality protection. Alternatively, use restrictions would be developed by the Permittee through lease terms, or other mechanisms. Examples of activity restrictions, which would be incorporated in either the CC&Rs or other legal instruments recorded on the property title, or both, include prohibiting the blowing, sweeping, or hosing of debris (leaf litter, grass clippings, litter, etc.) into streets, storm drain inlets, or other conveyances and pesticide application in common areas must be performed by an applicator certified by the California Department of Pesticide Regulation.
- Common Area Landscape Management - Ongoing maintenance would be consistent with the County Landscape Irrigation Code, plus fertilizer and/or pesticide usage would be consistent with County guidelines for use fertilizers.

- BMP Maintenance – The HOA or another designated entity would be responsible for the inspection and maintenance of structural BMPs within their boundaries.
- Common Area Litter Control – Litter patrol, emptying of trash receptacles in common areas, and noting trash disposal violations by tenants/homeowners or businesses and reporting the violations to the owner/HOA for investigation would be conducted.
- Common Area Catch Basin Inspection – 80 percent of all privately maintained drainage facilities would be inspected each year and, if necessary, cleaned and maintained prior to the storm season, no later than October 1st each year; 100 percent of all privately-maintained drainage facilities would be inspected, cleaned and maintained in a two-year period. Drainage facilities include catch basins and inlets, water quality basins, debris basins, and culverts.
- Street Sweeping Private Streets and Parking Lots - Private streets would be swept at a minimum prior to the storm season, no later than October 1st each year.

Structural Source Control BMPs

- Storm Drain Stenciling –Provide storm drain stenciling and signage. Show the "No Dumping – Drains to Ocean" logo or equivalent that will be installed on all privately owned and operated internal yard drains, catch basins, and drain inlets draining to the street or storm drain system. "No Dumping" logos to be posted at all ingress and egress points of the channel. If there are no ingress/egress points, signs must be posted at 300-foot intervals.
- Trash and Waste – Design and construct trash and waste storage areas to reduce pollution introduction.
- Irrigation Systems – Use efficient irrigation systems and landscape design, water conservation, smart controllers and source control.
- Slopes and Channels – Protect slopes and channels and provide energy dissipation.
- Hillside Landscaping – There are a number of existing and proposed slopes on the project site. Where practical, established native vegetation would be protected in place on existing slopes. Native, drought-tolerant landscape species would be considered where practical for use on proposed slopes. Individual property owners and the HOA staff would regularly inspect slopes for visible soil erosion. Bare areas would be revegetated and stabilized until a root system is firmly established.

Water quality flow for the 102 single family lots and water quality flow for the streets would be treated at a common downstream water quality basin (see PDF 8-1). Flows would be captured using conventional catch basins and then conveyed via closed storm drain pipes to the large basin where the LID design storm would be infiltrated. Due to debris basins being upstream of the large basin, a forebay would be designed within the basin per County of Los Angeles requirements. All water quality BMPs would be designed with high flow bypasses to ensure no damage to adjacent homes or slopes. **Figure 4.8-1**, *LID/Water Quality Features*, illustrates the locations of the propsoed single family lots and the large water quality basin. Water quality volume and basin design summaries are provided in the impact analysis below.

Analysis of Project Impacts

Water Quality

Threshold HWQ-1: Would the Project violate any water quality standards or waste discharge requirements?

Threshold HWQ-2: Would the Project 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)?

Threshold HWQ-3: Would the Project 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 on- or off-site?

Threshold HWQ-4: Would the Project 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 on- or off-site?

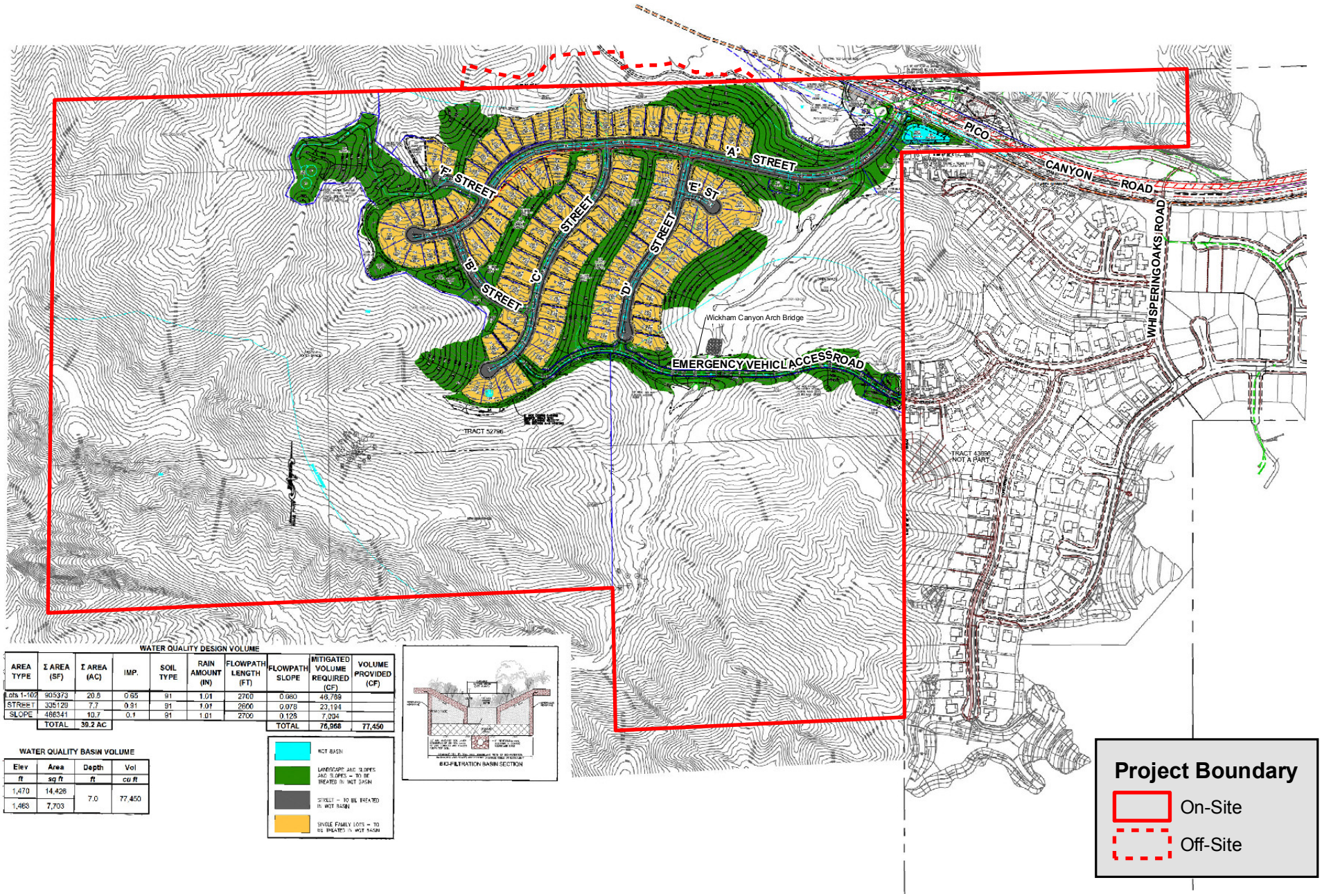
Threshold HWQ-5: Would the Project add water features or create conditions in which standing water can accumulate that could increase habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use?

Threshold HWQ-7: Would the Project generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality?

Threshold HWQ-9: Would the Project result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance?

Threshold HWQ-11: Would the Project otherwise substantially degrade water quality?

Impact Statement 4.8-1: Construction and operation of the Project would comply with all applicable regulatory requirements regarding water quality. Compliance with applicable regulatory requirements and implementation of the BMPs as part of the Project's SWPPP and LID requirements, would ensure that construction and operational water quality impacts are less than significant.



N

0 600 1,200 Feet

LID / Water Quality Features

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2015.

FIGURE

4.8-1

This page intentionally blank.

Construction Water Quality

Construction activities, such as grading, maintenance/operation of construction equipment, and the handling/storage/disposal of construction materials, could potentially contribute to pollutant loading in stormwater runoff. However, the Project would be required to obtain coverage under the Construction General Permit. In accordance with the permit requirements, the Permittee would prepare and implement a site-specific SWPPP (see PDF 8-6), which would specify BMPs to be used during construction. Such BMPs

would include, but not be limited to, measures for erosion control, sediment control, non-stormwater management, and materials management.

Implementation of the SWPPP and associated BMPs would reduce or eliminate the discharge of potential pollutants from stormwater runoff to the maximum extent practicable. Given the proposed uses for the Project, discharge of Chloride, Chlorpyrifos, Coliform, and Diazinon, the constituents for which the Santa Clara River (Reach 6) is listed as impaired (and which are generally associated with agricultural uses), is not expected. More specifically, implementation of the BMPs would ensure the quality of stormwater runoff leaving the developed Project area would meet all regulatory standards and maintain the beneficial uses of the Santa Clara River and its downstream waters. With implementation of the construction BMPs, Project construction activities are not anticipated to create pollution, contamination, or nuisance, as defined in Section 13050 of the California Water Code. Additionally, the County would monitor compliance with these requirements as part of the Project approval process. Therefore, with compliance with NPDES and County requirements, Project construction would not violate any water quality standards or waste discharge requirements, result in substantial erosion or siltation, contribute substantial additional sources of polluted runoff, or otherwise substantially degrade surface water quality. As such, impacts to surface water quality associated with Project construction would be less than significant.

Operational Water Quality

As is typical of most developments, stormwater runoff from the development area would have the potential to contribute oil and grease, suspended solids, metals, gasoline, pesticides, and pathogens to the stormwater conveyance system. Given the proposed residential uses for the Project, discharge of Chloride, Chlorpyrifos, Coliform, and Diazinon, the constituents for which the Santa Clara River is listed as impaired (and which are generally associated with agricultural uses), is not expected. The addition of impervious surface area and the associated increase in peak runoff volumes could also contribute to a potentially adverse impact on surface water quality. In accordance with NPDES requirements, the Permittee would be required to prepare and implement LID requirements throughout the operational life of the Project. As described above, stormwater BMPs would be incorporated into the design of the Project to address stormwater runoff water quality. Such BMPs would include source control BMPs to prevent pollutants from entering into stormwater discharges and treatment control BMPs to remove pollutants from stormwater discharges. In accordance with NPDES requirements, the treatment control BMPs, primarily the on-site water infiltration/treatment basin (see PDF 8-1), would mitigate (infiltrate or treat) the first 0.75 inch of stormwater runoff from a first flush storm event). In addition, operation and maintenance measures would be implemented to separate stormwater from potential pollutants, and LID BMPs would be implemented to promote infiltration, in accordance with the County's LID Manual.

Relative to sedimentation, as discussed in Impact Statement 4.8-3 below, the Project's potential hydromodification impacts to Pico Canyon Creek were evaluated. The study results indicate that the

Project's proposed design features would ensure that runoff patterns are similar to existing conditions and that downstream peak velocities in Pico Canyon Creek are not substantially increased to the point that significant downstream hydromodification and/or erosion impacts occur. Therefore, less than significant water quality related impacts associated with hydromodification would result from buildout of the Project.

In summary, implementation of the LID requirements would ensure the quality of stormwater runoff leaving the Project's developed area would meet all regulatory standards and would maintain the beneficial uses of the Santa Clara River, the Santa Clara River Valley East groundwater basin, and its downstream waters. The County, as part of its Project approval and construction practice, would monitor compliance with these requirements. As such, the Project would not violate any water quality standards or waste discharge requirements, contribute substantial additional sources of polluted runoff, or otherwise substantially degrade surface water quality. Based on the above, less than significant impacts on water quality would occur due to long-term operation of the Project.

Also, no State Water Resources Control Board-designated Areas of Special Biological Significance (ASBS) are located near the Project site. The closest ASBS is the Laguna Point to Latigo Point ASBS, which is located in both Los Angeles and Ventura counties and more than 24 miles from the Project site. This ASBS is the largest of the mainland ASBS in Southern California, with 24 miles of coastline and 11,842 acres of marine habitat. Thus, the Project would not result in point or nonpoint source pollutant discharges into any such areas. No impact would occur in this regard.

Mosquito and Vector Habitat

While the Project would include an infiltration basin, the basin would only accumulate stormwater temporarily during heavy rain periods, thus not creating any long-term habitat for mosquitoes or other vectors. The Project would not include any other water features or create conditions in which standing water could accumulate and provide habitat for mosquitoes and other vectors that transmit diseases or result in increased pesticide use. Impacts regarding habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and associated increased pesticide use would be less than significant.

Groundwater Supplies

Threshold HWQ-2: Would the Project 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)?

Impact Statement 4.8-2: The Project would be served by a municipal water supply. The additional impervious surfaces created by the Project would not result in a substantial change in groundwater infiltration rates. Furthermore, there would be no noticeable change in any aquifer volume or a lowering of the local groundwater table due to a change in groundwater recharge rates as a result of Project implementation. Thus, the Project would have a less than significant impact with respect to groundwater supplies or groundwater recharge.

Water service for the Project would be provided by the Valencia Water District. No new water wells are proposed as part of the Project. As a result, the Project would not involve the extraction of groundwater from underlying resources at the site.

The Project would develop the 102 residential units and associated hardscapes (e.g., roadways, sidewalks, etc.), which would result in an increase in impervious surface area on-site. Specifically, 45 acres of the approximate 230-acre site would be improved with impervious surfaces. This reduction in pervious surface area could potentially reduce the amount of water reaching groundwater aquifers beneath the site.

As discussed above, flows from the site's impervious areas would be directed to a large, on-site water quality infiltration basin. An overflow device would be used at this basin to bypass any flows beyond the County required LID water quality volume. Per the Hydrology Report, percolation testing has been completed at the Project site and the native soils infiltrate at a rate 1.92 inches/hour (in/hr). This exceeds the 0.3 in/hr County LID minimum. As such, the infiltration basin would allow stormwater to percolate into the underlying soil or evaporate into the atmosphere. In consideration of the infiltration basin and limited extent of overall impervious surface relative to the underlying groundwater basin, the corresponding limited extent of potential loss of groundwater recharge would not significantly impact groundwater supplies. In this respect, the infiltration rate on the Project site would not substantially change compared to existing conditions. Accordingly, there would be no noticeable change in any aquifer volume or a lowering of the local groundwater table due to a change in groundwater recharge rates as a result of Project implementation.

Overall, since the Project would not extract groundwater from the site or substantially interfere with groundwater recharge, less than significant impacts on groundwater supplies and groundwater hydrology would occur from Project implementation.

Drainage Patterns and Stormwater Drainage System

Threshold HWQ-3: Would the Project 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 on- or off-site?

Threshold HWQ-4: Would the Project 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 on- or off-site?

Threshold HWQ-6: Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Threshold HWQ-8: Would the Project conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Chapter 12.84 and Title 22, Chapter 22.52)?

Impact Statement 4.8-3: The Project would be designed to maintain existing drainage patterns of the site and area to a large extent. Post development runoff would be consistent with applicable regulatory

requirements; the post-project site would not result in significant hydrology impacts downstream such that flooding or erosion would occur on- or off-site. Furthermore, the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage. Compliance with applicable regulatory requirements and implementation of the LID requirements and the mitigation measure would ensure that impacts regarding changes in drainage patterns and stormwater flows are less than significant.

Under the developed condition of the Project, storm flows would drain by closed pipe to a large bio-infiltration basin or directly to storm drain inlets for high flow events. All water flows would go to the infiltration basin prior to entering the public storm drain system and the outlet to the Pico Canyon Road drainage system (see PDF 8-1). The water quality basin would be designed with high-flow bypasses to ensure no damage to adjacent homes or slopes. The proposed condition would generally maintain the existing drainage course and would outlet all storm flows to Pico Canyon Road drainage system. At the confluence of Wickham Canyon and Pico Canyon, storm flows would enter the Pico Canyon Road drainage system via a culvert under "A" Street. The County of Los Angeles would be the entity in charge of maintenance for this structure. The Project is also proposing s series of culverts as part its storm drain system to convey flows within the site. These culverts are discussed further below.

The Hydrology Report prepared for the Project evaluated the flowrates and volumes of the Project site under 2-, 5- 10- 25- and 50-year "Undeveloped" and "Developed" flood conditions. Each condition was modeled under clear (no potential to burn) and burned (post wildfire) conditions.

As discussed under the Existing Conditions section above, three (3) major basins are delineated in hydrologic study: A, B, and C. The majorities of Basin A and Basin B remain unchanged between the undeveloped and developed condition models. All development occurs in Basin C of the model. Basins A and Basin B are only affected along their boundaries with Basin C. The locations of the basins in the model are illustrated in the "Undeveloped Condition Drainage Map - Sheet 1" in Appendix D of the Hydrology Report. Please refer to the Hydrology Report for the other model assumptions for the various storm year scenarios.

The "clear" flowrates for the existing versus the developed site conditions are presented in **Table 4.8-4**, *Developed Condition Clear Flows (cfs)*. **Table 4.8-5**, *Developed Condition Burned Flows (cfs)*, presents the "burned" flowrates for the existing versus developed site conditions. The numbers cited in these tables and below have been rounded per USGS standards.

Table 4.8-4

Developed Condition Clear Flows (cfs)

Basin A, B and C	Area (Acres)	2-Year	5-Year	10-Year	25-Year	50-Year
Existing	2,149.0	74	390	890	1,910	2,950
Developed	2,149.3	80	400	890	1,910	2,950
Flow Change		**+6**	**+10**	**0**	**0**	**0**

Notes:

cfs = cubic feet per second

Source: Hydrology Report, prepared by Alliance Land Planning and Engineering, Inc., January 2015

Table 4.8-5

Developed Condition Burned Flows (cfs)

Basin A, B & C	Area (Acres)	2-Year	5-Year	10-Year	25-Year	50-Year
Existing	2,149.0	170	660	1,310	2,500	3,660
Developed	2,149.3	170	670	1,310	2,490	3,640
Flow Change		**0**	**+10**	**0**	**-10**	**-20**

Notes:

cfs = cubic feet per second

Source: Hydrology Report, prepared by Alliance Land Planning and Engineering, Inc., January 2015

Table 4.8-6, *Developed Condition Clear Volume (ac-ft)*, presents the existing versus developed condition clear storm volumes.

Table 4.8-6

Developed Condition Clear Volume (ac-ft)

Basin A, B & C	Area (Acres)	2-Year	5-Year	10-Year	25-Year	50-Year
Existing	2,149	23.92	73.67	129.39	242.73	367.34
Developed	2,149.1	26.25	77.61	133.71	248.21	374.48
Volume Change		**+2.33**	**+3.94**	**+4.32**	**+5.48**	**+7.14**

Notes:

ac-ft = acre-feet

Source: Hydrology Report, prepared by Alliance Land Planning and Engineering, Inc., January 2015

Table 4.8-7, *Developed Condition Burned and Bulked 50-YR Flowrates (cfs)*, presents the existing versus developed condition burned and bulked 50-Year (50-YR BB) flowrates for the Project site. .

Table 4.8-7

Developed Condition Burned and Bulked 50-YR Flowrates (cfs)

Basin A			Basin B			Basin C		
Existing	Developed	Change	Existing	Developed	Change	Existing	Developed	Change
5,230	5,190	**-40**	1,320	1,410	**+90**	1,580	1,510	**-70**

Notes:

cfs = cubic feet per second

Source: Hydrology Report, prepared by Alliance Land Planning and Engineering, Inc., January 2015

Per Table 4.8-6, the developed condition storm volumes are marginally greater than the existing condition. Percent increases range between 8.8% for the 2-Year event to 1.9% for the 50-Year event. In the developed

condition 50-Year clear flow storm event, the storm volume is increased by 7.14 ac-ft. The increase in storm volume would be mitigated by using a combination of water quality basins, which would filter (on-lot BMPs) and infiltrate the water from a storm event and provide a total of 2.25 ac-ft of storage. Debris basins would provide an additional 1.86 ac-ft of volume storage. Subtracting the mitigated volume, the developed condition proposes to increase the overall project runoff volume by 3.03 ac-ft. This increased volume would flow through the site down to the regional basin located on the northeast corner of Stevenson Ranch Parkway and Pico Canyon Road.

With developed and existing condition flowrates being effectively equal, bulked flows for the developed condition being effectively less (see Table 4.8-7), and only marginal increases in volume, the existing downstream infrastructure is considered to be adequate and will not require additional mitigation due to this Project.

The Hydraulic Study for the Project also analyzes impacts due to storm drain improvements, drainage culverts, and the proposed grading plan as they relate to the L.A. County 50-Year Burned and Bulked flowrate. The analysis evaluates flows at various points along Pico Canyon Creek and Wickham Canyon Creek with the Project's proposed drainage features. A culvert and an arch bridge would be placed along Wickham Canyon Creek (see PDF 8-4 and 8-5) to convey flows through the site. Another culvert is proposed for Pico Canyon Creek that would run below the intersection of Pico Canyon Road and "A" Street (see PDF 8-3). Each of the culverts would be equipped with a riprap lined outlet. The HEC-RAS modeling results presented in the Hydraulic Study show that flowrates decrease slightly after transitioning into the developed condition. This is believed to be due to an increase in time of concentration that offsets the increase in impervious area due to development. The majority of both the Pico Canyon Creek and Wickham Canyon Creek watersheds would remain untouched by development under the Project.

While flows may decrease, the Hydraulic Study also indicates that there could be slightly higher flow velocities at the Pico Canyon Culvert outlet due to the proposed stormwater improvements. The modeling data indicate that flow velocity at the inlet of the existing Pico Canyon reinforced concret box (RCB) would increase from 28.9 feet per second (fps) to 31.8 fps. This increase of 2.9 fps is considered due to upstream momentum generated by the proposed Pico Canyon Road culvert. This increase is considered relatively insignificant for a discussion of velocities greater than 25 fps. However, to ensure that downstream impacts are minimized, PDF 8-3 is prescribed to place grouted riprap at the Pico Canyon Road culvert outlet apron and wingwalls to slightly reduce velocities going into the 24' x 14' RCB.

The Hydraulic Study also indicates that on-site, upstream of the proposed culvert at Pico Canyon Creek and in Wickham Canyon Creek, flow velocities could be slightly higher under the developed condition than under existing conditions. To address on-site flow velocity increases in the on-site Pico Canyon and Wickham Canyon Creek reaches, Mitigation Measure 4.8-1 has been prescribed. The mitigation requires Turf Reinforcing Mat (TRM) along any grading where the floodplain would run along the slope.

All of the proposed site improvements and stormwater BMPs would be implemented in accordance with the County's LID Manual, including LID BMPs on-site that would promote infiltration. LID requirements would ensure that the Project's stormwater improvements are implemented per an approved Final Hydrology and Hydraulic Study in accordance with applicable County standards and regulations. In addition, as discussed above, the Project's Hydrology Report included a LID hydrologic analysis which compared the pre- and post-

development peak runoff volumes and determined the volume and flow rate to be treated. As shown therein, with the LID BMPs, the Project would result in a net decrease in runoff volume to be treated. As such, the Project would not conflict with the County's LID ordinance.

Based on the above, the Project would be designed to maintain existing drainage patterns of the site and area to a large extent. Post-development runoff would be consistent with applicable regulatory requirements such that the post-project site would not result in significant hydrology impacts downstream, and no flooding or erosion would occur on- or off-site. Furthermore, the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainages. Compliance with applicable regulatory requirements and implementation of the LID requirements and mitigation measure would ensure that impacts regarding changes in drainage patterns and stormwater flows are less than significant.

Mitigation Measures

Mitigation Measure 4.8-1 Turf Reinforcing Mat (TRM) shall be placed along any grading within the on-site Pico Canyon and Wickham Canyon Creek reaches where the floodplain would run along the slopes adjacent to the drainage courses.

Onsite Wastewater Systems

Threshold HWQ-10: Would the Project use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?

Impact Statement 4.8-4: The Project would not include onsite wastewater systems (i.e. septic systems) that could result in related groundwater or other water-quality impacts. No impacts would occur in this regard.

The Project does not include the use of a septic system, as sanitary sewers would be used. Wastewater generated at the Project site would be collected and conveyed by a sewer system owned and operated by the County's Public Works Department. The Project would have no impact in regard to the use of septic systems or alternative wastewater disposal.

Flood Hazards

Threshold HWQ-12: Would the Project 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, or within a floodway or floodplain?

Threshold HWQ-13: Would the Project place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?

Threshold HWQ-14: Would the Project 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?

Impact Statement 4.8-5: *Implementation of the Project would not place housing or structures within a 100-year flood hazards area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or within a floodway or floodplain, which would impede or redirect flood flows. As such, a less than significant impact would occur in this regard. Further, no dams or levees are present on or near the Project site. As such, flooding resulting from a dam or levee failure would not occur.*

According to Figure 12.2, *Flood Hazard Zones Policy Map*, of the General Plan 2035 (Draft 2014) and Exhibit S-4, *Floodplains*, of the Santa Clarita Valley Area Plan 2012, a portion of the Project site within and adjacent to Pico Canyon is located within a 100-year flood hazard area.[12] The 1990 Santa Clarita Valley Area Plan designates floodplains as Floodplain Management Areas with residential uses precluded from floodways. However, the Project would not place housing within the 100-year floodplain. The Project would place only infrastructure designed for flood management within the 100-year floodplain, which would be constructed to control storm flows and minimize flood-related hazards. Thus, less than significant impact would occur with regard to flood flows.

Also, no dams or levees are present on or near the Project site. According to Figure 12.4, *Dam and Reservoir Inundation Areas*, of the General Plan 2035 (Draft 2014), the Project site is not located within a flood hazard area due to failure of a dam or reservoir. Therefore, flooding resulting from a dam or levee failure would not occur.

Seiche, Tsunami and Mudflow Hazards

Threshold HWQ-15: Would the Project place structures in areas subject to inundation by seiche, tsunami, or mudflow?

Impact Statement 4.8-6: *Implementation of the Project would not place structures in areas subject to significant inundation by seiche, tsunami, or mudflow hazards. A less than significant impact would occur in this regard.*

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of the sea floor associated with large, shallow earthquakes. Mudflows result from the down slope movement of soil and/or rock under the influence of gravity.

The Project site is located approximately 24 miles northeast of the Pacific Ocean. The site is not adjacent to a large body of water. According to Figure 12.3, *Tsunami Hazard Areas*, of the General Plan 2035 (Draft 2014),

[12] *Flood Insurance Rate Map 060370815F. Federal Emergency Management Agency. September 26, 2008.*

the Project site is not located within a tsunami hazard area. Thus, there is no potential for seiche hazards. A residential community abuts the Project site on the east, and the site is not otherwise positioned in an area subject to substantial mudflow hazards. Further, as discussed under Impact Statement 4.8-5, no proposed single-family dwellings or other habitable structures would be located within a 100-year floodplain and no flooding hazards associated with a dam or levee failure would occur. Overall, a less than significant impact would occur in this regard.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (HWQ-1 to HWQ-15) analyzed in this EIR section?

Impact Statement 4.8-10: The Project combined with the related projects would not significantly impact downstream hydrology or runoff water quality in the vicinity of the project area. Thus, cumulative hydrology and water quality impacts would be less than significant. .

The geographic context for the cumulative impact analysis of water quality impacts considers those related projects listed in Chapter 3.0 of this EIR, but also future projects/growth within the greater Upper Santa Clara River watershed on a more regional level. Cumulative growth within the local and regional vicinity could increase the potential for pollutants to enter receiving waters. However, like the Project, all related projects and other qualifying future developments in the area would be subject to state, regional, and County requirements, such as NPDES permits and LID requirements, as well as SWPPP and LID requirements, as appropriate. Similarly, nearly all the related projects are located within the Upper Santa Clara River watershed and would ultimately discharge to the Santa Clara River. Accordingly, all future development, including the related projects, throughout the Upper Santa Clara River watershed would be subject to relevant regulatory requirements, including NPDES, SWPPP, and LID requirements to minimize water quality impacts. Future projects would be evaluated individually to determine appropriate BMPs and treatment measures to avoid impacts to water quality. In addition, the County would review all construction projects on a case-by-case basis to ensure that local and regional drainage surface water quality is protected. Therefore, with compliance with all applicable laws, rules, and regulations, no significant cumulative impacts to surface water quality are anticipated.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Hydrology and water quality impacts would be less than significant with implementation of the LID requirements, mitigation measure and compliance with applicable regulatory requirements.

This page intentionally blank.

4.9 LAND USE AND PLANNING

Development on the Project site is guided by policies and regulations set forth in local and regional plans as well as local zoning regulations. This section provides an analysis of applicable land use plans and zoning regulations and evaluates the relationship between the Project and surrounding land uses. The analysis addresses whether the Project would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project. Information in this section is based the adopted Los Angeles County (County) General Plan (1980), the Draft Los Angeles County General Plan 2035 (2014), the 1990 Santa Clarita Valley Area Plan, the Santa Clarita Valley Area Plan ("One Valley, One Vision") (2012), Los Angeles County Code Title 22, and Southern California Association of Governments (SCAG)'s 2012-2035 Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS). The Los Angeles County General Plan 2035 (2014) is only in draft format; as such, the Project is not required to comply with the goals and policies of this draft General Plan, which may change prior to adoption. Further, as the Project was originally submitted prior to the 2012 adoption of the "One Valley, One Vision" area plan, the Project site will be analyzed under the land use categories that existed at the time of the original application, which are contained in the 1990 Santa Clarita Valley Area Plan.

1. ENVIRONMENTAL SETTING

Regulatory Framework

There are no federal or State land use regulations pertinent to the Project. The following describes the applicable local plans and regulations that are applicable to the Project.

Local Plans

Los Angeles County General Plan

The adopted Los Angeles County General Plan (1980) serves as a document to provide decision-makers with a policy framework to guide specific, incremental decisions to achieve the Plan's stated goals and objectives. Chapters and elements address issues that transcend community interests and are intended to identify and promote the broader public interest. In this regard, the chapters and elements have three major roles:[1]

1. To provide an overall set of goals and policies to guide countywide activities so that governmental decisions at all levels move in the same direction;

2. To provide policy parameters to integrate more specific planning efforts in order to ensure a compatible and effective regional approach; and

3. To provide effective planning for specific functions that can be best addressed at the countywide level.

According to the General Plan, each of the countywide chapters and elements has been developed with one or more of the above roles in mind and fulfills a necessary role that transcends and supplements the local plans.[2] These provide a consistent approach to urban form and general development patterns; population

[1] *County of Los Angeles Department of Regional Planning, Los Angeles County General Plan, 1980, page 4.*

[2] *Ibid.*

growth and distribution; protection of life and property; environmental resource protection; major open space and recreational opportunities; economic, housing, and social opportunities; regional transportation and service systems, and land use policy. General Plan elements, which have been updated over the years, address land use, housing, transportation, water and waste management, safety, seismic safety, noise, scenic highways, bikeways and recreation. Because of the age of the adopted General Plan, the elements and goals of the Draft Los Angeles County General Plan 2035 are evaluated in this Draft EIR with respect to the more recent plan's overall land use policy and intent. However, the designated land uses under the adopted General Plan would still be applicable to the Project site.

Draft Los Angeles County General Plan 2035 (2014)

The Draft Los Angeles County General Plan 2035 (2014) represents a comprehensive effort to update the County's 1980 General Plan and provides the policy framework for how and where the unincorporated areas will grow through the year 2035. This Plan establishes goals, policies, and programs to foster healthy, livable, and sustainable communities. Guiding Principles of the Draft Los Angeles County General Plan emphasize the concept of sustainability. These are:[3]

1. Employ Smart Growth: Shape new communities to align housing with jobs and services; and protect and conserve the County's natural and cultural resources, including the character of rural communities.

2. Ensure community services and infrastructure are sufficient to accommodate growth: Coordinate an equitable sharing of public and private costs associated with providing or upgrading community services and infrastructure to meet growth needs.

3. Provide the foundation for a strong and diverse economy: Protect areas that generate employment and promote programs that support a stable and well educated workforce. This will provide a foundation for a jobs-housing balance and a vital and competitive economy in the unincorporated areas.

4. Excellence in environmental resource management: Carefully manage the County's natural resources, such as air, water, wildlife habitats, mineral resources, agricultural land, forests, and open space in an integrated way that is both feasible and sustainable.

5. Provide healthy, livable and equitable communities: Design communities that incorporate their cultural and historic surroundings, are not overburdened by nuisance and negative environmental factors, and provide reasonable access to food systems. These factors have a measureable effect on public well-being.

Major policy changes in the Draft General Plan compared to the Adopted General Plan is the expansion of Significant Ecological Areas (SEAs). SEA is a designation given to land that contains irreplaceable biological resources. Individual SEAs include undisturbed or lightly disturbed habitat supporting valuable and threatened species, linkages and corridors to promote species movement, and are sized to support sustainable populations of their component species. The objective of the SEA Program is to preserve the genetic and physical diversity of the County by designing biological resource areas capable of sustaining

[3] *Los Angeles County Department of Regional Planning, Draft Los Angeles County General Plan 2035 (2014), page 10.*

themselves into the future. However, SEAs are not wilderness preserves. Much of the land in SEAs is privately held, used for public recreation, or abutting developed areas. Thus the SEA Program is intended to ensure that privately held lands within the SEAs retain the right of reasonable use, while avoiding activities and development projects that are incompatible with the long term survival of the SEAs.

The Draft General Plan identifies 11 Planning Areas, with the Project site being located in the Santa Clarita Valley Planning Area, and provides a mechanism for local communities to work with the County to develop plans that respond to their unique and diverse character. In addition, the Draft General Plan comprises the following nine elements:

- Land Use Element: The Land Use Element designates land uses, and provides strategies and planning tools to facilitate and guide future development and revitalization efforts. Designated land uses are consistent with the 11 Planning Areas. Because the Project application was filed prior to the adoption of the recent "One Valley, One Vision" Santa Clarita Valley Area Plan (2012), the land use designations under the 1990 Santa Clarita Valley Area Plan are pertinent to the Project.
- Mobility Element: The Mobility Element provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Highway Plan and the Bicycle Master Plan are sub-components of the Mobility Element.
- Air Quality Element: The Air Quality Element summarizes air quality issues and outlines the goals and policies that will improve air quality and reduce greenhouse gas emissions. The Community Climate Action Plan is a sub-component of the Air Quality Element.
- Conservation and Natural Resources Element: The Conservation and Natural Resources Element guides the long-term conservation of natural resources and preservation of available open space areas.
- Parks and Recreation Element: The Parks and Recreation Element plans and provides for an integrated parks and recreation system that meets the needs of residents.
- Noise Element: The Noise Element reduces and limits the exposure of the general public to excessive noise levels. The Noise Element sets the goals and policy direction for the management of noise.
- Safety Element: The purpose of the Safety Element is to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards.
- Public Services and Facilities Element: The Public Services and Facilities Element promotes the orderly and efficient planning of public services and facilities and infrastructure in conjunction with development and growth.
- Economic Development Element: The Economic Development Element outlines economic development goals, and provides strategies that contribute to economic well-being. With respect to the Santa Clarita Valley, the Economic Development states that the planning area contains a wide variety of retail, office, industrial, medical, and entertainment centers that provide employment, goods, and services to both regional and local market areas. The Planning Area is experiencing an increase in jobs, but not enough economic growth to achieve a jobs-housing balance. Many people in the region still commute great distances for their

employment. From 1992 to 2005, almost 40,000 new jobs were created in the Planning Area. Between 2000 and 2005, job growth averaged about 3,900 jobs per year. Most of this job growth occurred in the manufacturing, services, retail trade, and construction sectors.

Santa Clarita Valley Area Plan (1990)

The 1990 Santa Clarita Valley Area Plan ("SCV Area Plan"), in conjunction with other chapters and elements of the General Plan, is a statement of public policy for land use decisions related to the Santa Clarita Valley. The SCV Area Plan anticipates a buildout population of 270,000, 93,400 housing units and employment of 111,000 by 2010. With regard to Pico Canyon and the area west of Interstate 5, the SCV Area Plan states: "With sensitive design to protect its oak-covered hills, this area has the potential for urban residential expansion. Its proximity to the I-5 Freeway, along with a comprehensive linkage of master-planned highways, will help ensure adequate circulation for the area."[4]

Area-wide policies under the SCV Area Plan are to accommodate projected land use and urban growth, concentrate population and land use growth in a concentrated, rather than dispersed, pattern, ensure that costs of population and urban growth are borne by those who benefit, address environmental hazards and constraints by directing future growth away from areas of high environmental sensitivity, and encourage land use compatibility and adequacy of public services.

The SCV Area Plan also establishes general conditions for development in hillside areas, which are implemented by ordinances contained in Title 22 of the Los Angeles County Code. Under the SCV Area Plan, the Project site is designated as W (Floodway/Flood Plain), U-2 (Residential 3.4 – 6.6 du/acre), and HM (Hillside Management).

Santa Clarita Valley Area Plan ("One Valley, One Vision") (2012)

The Santa Clarita Valley Area Plan ("One Valley, One Vision") was adopted by the Board of Supervisors on November 27, 2012. The Plan Amendment and related zone changes took effect on December 27, 2012. The Santa Clarita City Council and Los Angeles County Board of Supervisors initiated the joint planning effort, called "One Valley, One Vision", in recognition of a mutual need to coordinate land uses and the pace of development with provision of adequate infrastructure, conservation of natural resources, and common objectives for the Valley. Major goals of the joint planning effort were to achieve greater cooperation between the County and the City, coordinate planning for roadways, infrastructure, and resource management, and enhance quality of life for all who live and work in the Santa Clarita Valley. It refines the policies of the General Plan as they apply to a smaller geographic area and is implemented by ordinances and other discretionary actions, such as zoning regulations and Community Standards Districts.

The 2012 Santa Clarita Valley Area Plan became effective on the respective dates of adoption and, as required by State law, all subsequent planning and development decisions within the Santa Clarita Valley planning area shall be determined to be consistent with these documents, "except as provided herein for any land use applications pending during the plan preparation and adoption process."[5] The original application

[4] *Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan (Updated 1990), page 8.*

[5] *Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan/One Valley One Vision, November 27, 2012, page 3.*

for the Project was filed in 2000, prior to the adoption of the 2012 Santa Clarita Valley Area Plan and, thus, does not fall under the jurisdiction of this plan. Because the current land use categories of RL5 (Rural Land 5) and RL 20 (Rural Land 20) do not apply, the Project site is considered to be designated as W (Floodway/Flood Plan), U-2 (Urban-2), and HM (Hillside Management), as shown in the prior (1990) SCV Area Plan. Another difference between the land use designations in the prior SCV Area Plan and the current Plan is that the new plan indicates the entire Project site to be located within a Significant Ecological Area (SEA). The SEA is not applicable to the Project site because of the pending application status. However, Section 4.3, Biological Resources, of this Draft EIR, evaluates the impacts of the Project on sensitive biological resources and provides design features and mitigation measures to reduce or avoid Project impacts.

Los Angeles County Code Title 22 (Planning and Zoning Code)

Chapter 22.12 - Zones and Districts

Title 22 of the Los Angeles County Code sets forth zoning designations and other regulations pertinent to land use. The County's Zoning Code designates the Project site as A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size), which under Section 22.24.120 allows single-family residences, subject to the standards provided in Section 22.20.105 (development standards for single-family residences).

Section 22.56.205 – Conditional Use Permits: Density Controlled Development

Section 22.56.205 of the County Code establishes standards related to conditional use permits for density controlled development. A "density controlled development" is a concentration of dwelling units on a portion or portions of a lot or parcel of land so that the remainder of the property is free of buildings, as opposed to development spread throughout the entire lot or parcel. Such development is accomplished by computing density on a project level rather than a parcel-by-parcel basis, and by the use of smaller lots than are customarily permitted in the zone in which the development is proposed, while retaining the remaining portion of such lot or parcel in permanent open space.

In approving a conditional use permit for density controlled development, the County shall impose conditions pertaining to the following, which may not be modified except by Part 2 of Chapter 22.56 (Conditional Use Permits, etc.). Regulations pertinent to density-controlled land uses include the preservation of commonly owned areas, dwelling unit type (single family), and location, separation and height of buildings.

The County shall require the permanent reservation of all commonly owned areas. Such reservation shall be by establishment of a homeowners association, maintenance district or other appropriate means or methods to insure to the satisfaction of the commission the permanent reservation and continued perpetual maintenance of required commonly owned areas. The County shall require that all dwelling units be single-family residences unless a townhouse development is requested and approved. The County shall impose conditions as it deems necessary to govern the location, separation and height of buildings to insure compatible placement on the proposed site and with relationship to the surrounding area.

In approving a density-controlled development, the County may impose conditions pertaining to parking, architecture (appearance of the proposed development from surrounding property), design features promoting amenities, landscaping, and undergrounding of utilities.

Section 22.56.215 – Conditional Use Permits: Hillside Management and Significant Ecological Areas

Section 22.56.215 of the County Code establishes standards related to Hillside Management and Significant Ecological Areas (SEAs). According to Section 22.56.215, a conditional use permit is required in order to protect resources contained in SEAs and in Hillside Management areas as specified in the County General Plan from incompatible development that may result in or have the potential for environmental degradation and/or destruction of life and property. In extending protection to these environmentally sensitive areas, it is intended further to provide a process whereby the reconciliation of potential conflict within these areas may equitably occur. The SEA designation is not applicable to the Project site.

According to Section 22.56.215, it is not the purpose to preclude development within SEAs but to ensure, to the extent possible, that such development maintains, and where possible enhances, the remaining biotic resources of the significant ecological areas and the natural topography, resources and amenities of the hillside management areas, while allowing for limited controlled development therein. Although the Project site is not located within a designated SEA under the applicable 1990 SCV Area Plan, it is located within a designated Hillside Management area.

A "Hillside Management" area is an area that has a natural slope of 25 percent or more. Under this Code section, prior to the issuance of any building or grading permits, the approval of a subdivision, or the commencement of any construction in an area designated in the County General Plan and related maps as an SEA or within a Hillside Management area as specified herein, a conditional use permit shall be obtained. A conditional use permit is required in Hillside Management areas when:

a. The property contains any area with a natural slope of 25 percent or more in an urban Hillside Management area proposed to be developed with residential uses at a density exceeding the midpoint of the range of densities established by an adopted area wide, community or specific plan covering the areas in which the proposed development is located. Where there is no adopted area wide, community or specific plan, the applicable density range shall be established by the land use element of the General Plan.

b. The property contains any area with a natural slope of 25 percent or more in a nonurban Hillside Management area proposed to be developed, with residential uses at a density exceeding the low-density threshold established for such property pursuant to subsection E (Subsection E requires the calculation of density thresholds in nonurban Hillside Management Areas according to slope categories).[6]

Under Section 22.56.215.E, Calculation of Thresholds in Non-urban Hillside Management Areas, density thresholds for residential uses are calculated according to slope categories. The low-density threshold is determined by multiplying the number of acres (to the nearest tenth acre) as follows:

[6] *The low-density threshold for a proposed development shall be determined by multiplying the number of acres to the nearest tenth acre in the following slope categories by the density threshold indicated as follows: (i) one dwelling unit per five acres of land within the zero to 24.99 percent natural slope category; (ii) one dwelling unit per 10 acres of land within the 25 to 49.99 percent natural slope category; and (iii) zero dwelling units for any acreage within the 50 percent and above natural slope category.*

- One dwelling unit per five acres of land within the zero to 24.99 percent natural slope category;
- One dwelling unit per 10 acres of land within the 25 to 49.99 percent natural slope category; and
- Zero dwelling units for any acreage within the 50 percent and above natural slope category.

The resulting total number of dwelling units to the nearest tenth acre is then divided by the total acreage of the Project to the nearest tenth acre, and rounded down to obtain the low-density threshold applicable to such project. If the density per acre of the proposed development exceeds the low-density threshold of such development obtained in subsection E1 above, a conditional use permit is required.

Under Section 22.56.215, the application for a conditional use permit within Hillside Management areas must substantiate that the Project is located and designed so as to protect the safety of current and future community residents, and will not create significant threats to life and/or property due to the presence of geologic, seismic, slope instability, fire, flood, mud flow, or erosion hazard; that the Project is compatible with the natural, biotic, cultural, scenic and open space resources of the area; that the Project is conveniently served by (or provides) neighborhood shopping and commercial facilities, can be provided with essential public services without imposing undue costs on the total community, and is consistent with the objectives and policies of the General Plan; and that the proposed development demonstrates creative and imaginative design, resulting in a visual quality that will complement community character and benefit current and future community residents.

In Hillside Management areas, open space shall comprise not less than 25 percent of the net area of a residential development in an urban Hillside Management area, and not less than 70 percent of the net area of a residential development in a nonurban Hillside Management area. Subject to the approval of the County, such open space may include one or more of the following: (i) undisturbed natural areas,(ii) open space for passive recreation; (iii) private yards, provided that certain construction rights are dedicated; (iv) parks and open recreational areas; (v) riding, hiking and bicycle trails; (vi) landscaped areas adjacent to streets and highways; (vii) greenbelts; (viii) areas graded for rounding of slopes to contour appearance; and (ix) such other areas as the County deems appropriate.

Section 22.56.2050-22.56.2260 – Oak Tree Permits (Part 16)

Under Sections 22.56.2050-22.56.2260 of the County Code (Part 16), the oak tree permit process is established (a) to recognize oak trees as significant historical, aesthetic and ecological resources, and as one of the most picturesque trees in the County, lending beauty and charm to the natural and manmade landscape, enhancing the value of property, and the character of the communities in which they exist; and (b) to create favorable conditions for the preservation and propagation of this unique, threatened plant heritage, particularly those trees which may be classified as heritage oak trees, for the benefit of current and future residents of the County. One purpose of the permit is to preserve and maintain healthy oak trees in the development process. Damage to or removal of oak trees is prohibited under this Code section.

Section 22.56.2080 requires any person desiring an oak tree permit to file an application with the Department of Regional Planning, except that no application shall be accepted if final action has been taken within the prior one year period. Under Section 22.56.2090, where a change in grade is proposed, the change within the protected zone of each plotted tree shall be specified, including the location of all oak trees proposed to be removed and/or relocated, or within 200 feet of proposed construction, grading, landfill or other activity. Each tree shall be assigned an identification number on the plan and the protected zone shall

be shown for each plotted tree and the location and size of all proposed replacement trees, proposed and existing land uses, location of all surface drainage systems, and other development features which the director deems necessary to process the application must be plotted.

The oak tree permit application must also include an oak tree report, prepared by an individual with expertise acceptable to the director and county forester and fire warden. Evaluation of the Project Applicant's proposal as it impacts each tree must be shown on the site plan, including suggested mitigating and/ or future maintenance measures where required and the anticipated effectiveness thereof and identification of those trees shown on the site plan which may be classified as heritage oak trees. Heritage oak trees are either of the following: any oak tree measuring 36 inches or more in diameter, measured four and one-half feet above the natural grade; any oak tree having significant historical or cultural importance to the community, notwithstanding that the tree diameter is less than 36 inches.

The Permittee shall provide an oak tree information manual prepared by and available from the forester and fire warden to the purchasers and any homeowners' association.

In addition to the above information, Section 22.56.2100 requires the application to substantiate to the satisfaction of the director the following facts:

- That the construction of proposed use will be accomplished without endangering the health of remaining oak trees;
- That the removal or relocation of the oak tree(s) proposed will not result in soil erosion through the diversion or increased flow of surface waters which cannot be satisfactorily mitigated; and
- That in addition to the above, at least one of the following findings apply:
  - That the removal or relocation of the oak tree(s) proposed is necessary as continued existence at present location(s) frustrates the planned improvement or proposed use of the subject property to such an extent that alternative development plans cannot achieve the same permitted density or that the cost of such alternative would be prohibitive, or placement of such tree(s) precludes the reasonable and efficient use of such property for a use otherwise authorized,
  - That the oak tree(s) proposed for removal or relocation interferes with utility services or streets and highways, either within or outside of the subject property, and no reasonable alternative to such interference exists other than removal of the tree(s), or that the condition of the oak tree(s) proposed for removal with reference to seriously debilitating disease or danger or falling is such that it cannot be remedied through reasonable preservation procedures and practices; or that the removal of the oak tree(s) proposed will not be contrary to or be in substantial conflict with the intent and purpose of the oak tree permit procedure;

The oak tree report is reviewed by the County Forester and Fire Warden, who inspecst the site. Such inspections shall determine the health of all such trees on the Project site and such other factors as may be necessary and proper to complete the review. If the County Forester determines that replacement or relocation on the Project site of oak trees proposed for removal is inappropriate, the Forester may

recommend that the Project Applicant pay into the oak forests special fund the amount equivalent to the oak resource value of the trees described in the oak tree report.

Any required replacement trees shall consist exclusively of indigenous oak trees and shall be in the ratio of at least two to one. Each replacement tree shall be at least a 15-gallon size specimen and measure at least one inch in diameter one foot above the base. The hearing officer, director or commission may, in lieu of this requirement, require the substitution of one larger container specimen for each oak tree to be replaced, where, in its opinion, the substitution is feasible and conditions warrant such greater substitution,

Replacement trees shall be properly cared for and maintained for a period of two years and replaced by the Project Applicant or Permittee if mortality occurs within that period. Where feasible replacement trees should consist exclusively of indigenous oak trees and certified as being grown from a seed source collected in Los Angeles or Ventura Counties. Replacement trees shall be planted and maintained on the subject property and, if feasible, in the same general area where the trees were removed. The process of replacement of oak trees shall be supervised in the field by a person who, in the opinion of the County Forester and Fire Warden, has expertise in the planting, care and maintenance of oak trees.

The County shall devise a plan for protecting oak trees on the subject property during and after development, such as, but not limited to, the following requirements:

- The installation of chain link fencing not less than four feet in height around the protected zone of trees shown on the site plan. Said fencing shall be in place and inspected by the forester and fire warden prior to commencement of any activity on the subject property. Said fencing shall remain in place throughout the entire period of development and shall not be removed without written authorization from the director or the forester and fire warden,
- Where grading or any other similar activity is specifically approved within the protected zone, the Permittee shall provide an individual with special expertise acceptable to the director to supervise all excavation or grading proposed within the protected zones and to further supervise, monitor and certify to the County Forester and Fire Warden the implementation of all conditions imposed in connection with the Permittee'soak tree permit,
- That any excavation or grading allowed within the protected zone or within 15 feet of the trunk of a tree, whichever distance is greater, be limited to hand tools or small hand-power equipment,
- That trees on other portions of the subject property not included within the site plan also be protected with chain link fencing thus restricting storage, machinery storage or access during construction,
- That the trees on the site plan be physically identified by number on a tag affixed to the north side of the tree in a manner preserving the health and viability of the tree. The tag shall be composed of a noncorrosive all-weather material and shall be permanently affixed to the tree. The tree shall be similarly designated on the site plan in a manner acceptable to the director,
- That corrective measures for trees noted on the oak tree report as requiring remedial action be taken, including pest control, pruning, fertilizing and similar actions,

- That, to the extent feasible as determined by the director, utility trenching shall avoid encroaching into the protected zone on its path to and from any structure,

At the start of grading operations and throughout the entire period of development, no person shall perform any work for which an oak tree permit is required unless a copy of the oak tree report, location map, fencing plans, and approved oak tree permit and conditions are in the possession of a responsible person and also available at the site.

Regional Plans

Southern California Association of Governments

SCAG is the designated regional planning agency for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. SCAG is a joint powers agency with responsibilities pertaining to regional issues. SCAG's mandated responsibilities include developing plans and policies with respect to the region's population growth, transportation programs, air quality, housing, and economic development.

As part of its planning obligations, SCAG prepares the Regional Comprehensive Plans (RCP), the most recent being prepared in 2008. The 2008 RCP was accepted by SCAG for use as an advisory document that may be voluntarily used by local jurisdictions when developing local plans and addressing local issues of regional significance. The RCP addresses issues related to future growth and provides a means for assessing the potential impact of individual development projects within a regional context. Local Governments are asked to consider the RCP's recommendations in the preparation of General Plan updates, municipal code amendments, design guidelines, incentive programs and other actions. The RCP is also closely linked to, and serves as a basis for the preparation of SCAG's Regional Transportation Plan and the Compass Blueprint Growth Visioning (2 percent strategy) program.

Regional Transportation Plan

In April 2012, SCAG's Regional Council adopted the 2012 - 2035 Regional Transportation Plan – Sustainable Communities Strategy (2012 RTP). The 2012 RTP presents the transportation vision for the region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. Also, the RTP contains baseline socioeconomic Projections that are used as the basis for SCAG's transportation planning and the provision of services by other regional agencies. (SCAGs 2012 RTP Projections are discussed further in Chapter 4.H, Population, Housing, and Employment, of this Draft EIR.) The RTP includes goals and policies that seek to: align the plan investments and policies with improving regional economic development and competitiveness; maximize mobility and accessibility; ensure travel safety and reliability; preserve and ensure a regional transportation system; maximize productivity of our transportation system; protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking); actively encourage and create incentives for energy efficiency, where possible; encourage land use and growth patterns that facilitate transit and non-motorized transportation.; and maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

Compass Growth Visioning

SCAG also engages in the Compass Growth Visioning effort that addresses the regional development pattern so as to accommodate future development and provide land use patterns that improve mobility, reduce vehicle miles traveled, and support the goals and polices established in the RTP. The Growth Vision is driven by four key principles: mobility – getting where we want to go; livability - creating positive communities; prosperity - long-term health for the region; and sustainability - preserving natural surroundings.

To realize these principles on the ground, the Growth Vision encourages:

- Focusing growth in existing and emerging centers and along major transportation corridors;
- Creating significant areas of mixed-use development and walkable communities;
- Targeting growth around existing and planned transit stations; and
- Preserving existing open space and stable residential areas.

As part of the visioning effort, the Compass Blueprint 2% Strategy provides guidance for how and where SCAG can implement the Growth Vision for Southern California's future. It calls for modest changes to current land use and transportation trends on only 2% of the land area of the region. Directing the changes to the selected 2% of the land identified produces the greatest policy achievement for the least land affected. The Growth Visioning effort encourages clustering/densification of population activity in proximity to certain transportation facilities.

Air Quality Management Plan

The Air Quality Management Plan (AQMP) of the South Coast Air Quality Management District (SCAQMD) presents strategies for achieving the air quality planning goals set forth in the Federal and California Clean Air Acts (CCAA), including a comprehensive list of pollution control measures aimed at reducing emissions. The SCAQMD, which was established in 1977 pursuant to the Lewis-Presley Air Quality Management Act, is responsible for bringing air quality in the South Coast Air Basin (Basin) into conformity with federal and State air pollution standards. The SCAQMD is also responsible for monitoring ambient air pollution levels throughout the Basin and for developing and implementing attainment strategies to ensure that future emissions will be within federal and State standards. The AQMP, last amended in 2012, is addressed in Section 4.2, *Air Quality*, of this Draft EIR (please refer to Section 4.2 for a discussion of the Project's consistency with the AQMP).

Congestion Management Program

The Los Angeles County Metropolitan Transportation Authority (Metro) administers the Congestion Management Program (CMP), a State-mandated program designed to provide comprehensive long-range traffic planning on a regional basis. On October 28, 2010 the Metro Board adopted the 2010 CMP for the County. The 2010 CMP summarizes the results of 18 years of CMP highway and transit monitoring and 15 years of monitoring local growth. CMP implementation guidelines for local jurisdictions are also contained in the 2010 CMP. The primary goal of the CMP is to reduce traffic congestion in order to enhance the economic vitality and quality of life for affected communities. CMP guidelines specify that those freeway segments to which a proposed project could add 150 or more trips in each direction during the peak hours

be evaluated. The guidelines also require evaluation of designated CMP roadway intersections to which a proposed project could add 50 or more trips during either peak hour. The Project's consistency with the CMP is discussed in Section 4.12, *Traffic/Transportation*, of this Draft EIR.

Existing Conditions

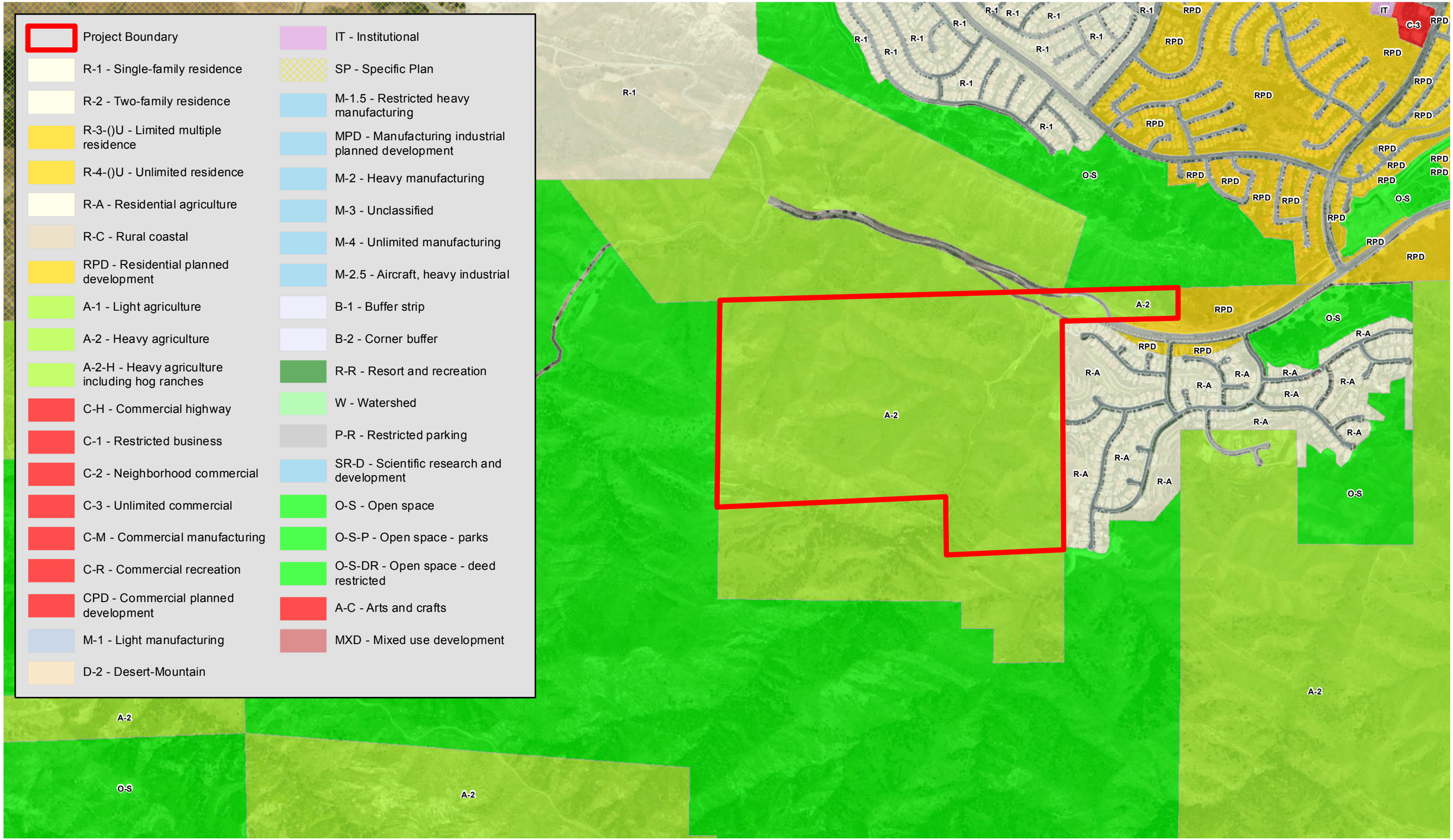
The Project site is primarily vacant and consists of undeveloped terrain with moderate to steep variations in topography. Several small to medium drainage courses traverse through the site. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland in the process of transition as they recover from a wildfire in 2010. A total of 15 Coast Live Oaks are located on-site. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site. Various unimproved access roads and trails traverse though the site. As shown in Figures 2-3(a) and 2-3(b), *Existing Site Photographs,* in Chapter 2 of this Draft EIR, the Project site is located in the northern foothills of the Santa Susana Mountains in an unincorporated section of the County known as Stevenson Ranch. Regional access to the Project site is provided via Interstate 5 (I-5) located approximately 1.6 miles east of the Project site. Local access to the Project site is provided via Pico Canyon Road, a County master-planned arterial road.

Pico Canyon Road in the vicinity of I-5 is substantially developed. The vicinity of Pico Canyon Road to the west of I-5 is characterized by commercial uses in the vicinity of The Old Road, including large scale shopping malls to the east and west of The Old Road. Several hotels and restaurants are located to the south of Pico Canyon Road in the vicinity of the freeway and The Old Road. Multi-family residences are located to the south of Pico Canyon Road, east of Constitution Avenue, and to the north of Pico Canyon Road between Pico Canyon Elementary School and Constitution Avenue. The Pico Canyon Elementary School is located approximately 0.8-mile to the east of the Project site, to the north of Pico Canyon Road in the vicinity of Gloriso Lane. Existing single-family residences are located to the south of Pico Canyon Road, west of Constitution Avenue.

To the east of the I-5 freeway, Pico Canyon Road becomes Lyons Avenue and enters the City of Santa Clarita, approximately 1.5 miles to the east of the Project site. The area immediately to the east of I-5 is developed with industrial uses such as performing arts studios, commercial uses and restaurants along Lyons Avenue, multi-family residential uses, and an 18-hole golf course.

As illustrated in **Figure 4.9-1**, *Project Site Zoning Categories*, the Project site is zoned A-2-2 (Heavy Agricultural Zone, with a two-acre minimum lot size), which allows for single-family residential development. Because the Project's application was pending at the time of the adoption of the Santa Clarita Valley Area Plan in 2012, the land use designations of the prior SCV Area Plan are applicable to the site. Under the SCV Area Plan, the applicable land use designations are HM (Hillside Management), U2 (Residential - 3.4-6.5 du/ac), and W (Floodway/Floodplain). The Project site's designated land use categories are illustrated in **Figure 4.9-2**, *Santa Clarita Valley Area Plan Land Use Designations (1990).*

A single-family residential community, Southern Oaks, abuts the Project site to the east. The area to the west of the Project site is mostly undeveloped within Pico Canyon, but this area includes the remaining historic buildings of Mentryville and the Pico Canyon Oil Field Well No. 4. Mentryville and the Pico Canyon Oil Field Well No. 4 are state historic landmarks managed by the Santa Monica Mountains Conservancy (SMMC). The



PCR

Project Site Zoning Categories

Aidlin Hills, Project No. 00-136

Source: Microsoft, 2010 (Aerial); County of LA-DRP - GIS Section, 2014; PCR Services Corporation, 2014.

FIGURE

4.9-1

Project Boundary

Santa Clarita Valley Land Use Policy - 1984

- AP - Airport
- C - Commercial
- HM - Hillside Management
- M - Industry
- N1 - Non-Urban 1 (0.5 du/ac)
- N2 - Non-Urban 2 (0.5 to 1.0 du/ac)
- O - Open Space
- O-NF - National Forest
- O-P - Open Space Parks
- O-W - Water Body
- O/BLM - Open Space (Bureau of Land Management)
- P - Public Service Facilities
- RR - Resort Recreational
- SP - Specific Plan
- TC - Transportation Corridor
- U1 - Urban 1 (1.1 to 3.3 du/ac)
- U2 - Urban 2 (3.4 to 6.6 du/ac)
- U3 - Urban 3 (6.7 to 15.0 du/ac)
- U4 - Urban 4 (15.1 to 40.0 du/ac)
- W - Floodway/Floodplain

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

PCR

0 0.5 1 Miles

Santa Clarita Valley Area Plan Land Use Categories

Aidlin Hills, Project No. 00-136
Source: Microsoft, 2010 (Aerial); County of LA-DRP - GIS Section, 2014; PCR Services Corporation, 2014.

FIGURE
4.9-2

Pico Canyon Trail, a four-mile trail mostly adjacent to Pico Canyon Road and providing access to Mentryville, meanders through Pico Canyon in areas generally to the west and southwest of the Project site. The areas directly to the north and south of the Project site are primarily undeveloped with moderate to steep variations in topography.

The Project site is located within a Very High Fire Hazard Severity Zone (VHFHSZ) or Fire Zone 4, which requires specific minimum structure setbacks, permanent irrigation systems, fire retardant plants from a County-approved plant list, and landscape and planting maintenance (i.e., thinning and removal of dead plants).

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and Los Angeles County Environmental Analysis Checklist provide thresholds of significance to determine whether a project would have a significant environmental impact regarding land use and planning. Based on the need for discretionary approvals and location within a Hillside Management Area, the thresholds identified below are included for evaluation in this EIR.

Would the Project:

Threshold LU-1: Physically divide an established community? (refer to Impact Statement 4.9-1);

Threshold LU-2: Be inconsistent with the applicable County plans for the subject property including, but not limited to, the General Plan, specific plans, local coastal plans, area plans, and community/neighborhood plans? (refer to Impact Statement 4.9-2);

Threshold LU-3: Be inconsistent with the County zoning ordinance as applicable to the subject property? (refer to Impact Statement 4.9-3); and

Threshold LU-4: Conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria? (refer to Impact Statement 4.9-4).

Methodology

The *State CEQA Guidelines* Section 15125(d) requires that an EIR discuss any project inconsistencies with applicable general plans, specific plans, and regional plans. For purposes of this analysis, the Project is considered consistent with regulatory plans if it meets the general intent of the plans and/or would not preclude the attainment of their primary goals. The analysis of potential land use impacts of the Project, therefore, considers consistency with adopted plans, regulations, and development guidelines that regulate or guide land use on the Project site, based on detailed review of the applicable documents. Because the Project was originally submitted prior to the 2012 adoption of the "One Valley, One Vision" area plan, the Project site retains the zoning and land use categories that existed at the time of original application. Although the current land use categories do not apply, these categories and existing categories are evaluated. The analysis also describes the consistency of the Project with the policies of the applicable 1980 Land Use

Element of the adopted Los Angeles General Plan and the policies of the Land Use Chapter of the Draft Los Angeles County General Plan 2035 (2014) to determine the approximate consistency of the Project with current land use policies.

Project Design Features

The Project consists of 102 single-family dwellings, local roadways, two 250,000-gallon water tanks, a pump station, water quality treatment basins, and an emergency secondary fire access road within a 230.5-acre Project site. The proposed residential lots would occupy approximately 21.2 acres of the Project site. The Project would require approximately 1,300,000 cubic yards of cut material, with all cut material being used as fill material within the site. The architectural styles proposed for the single-family dwellings would encompass Craftsman, Spanish, Tuscan, Colonial, and eclectic styles. Typical building materials include stucco, siding, and stone veneer. The remaining improved areas of the Project site would include 3.8 acres for the water tanks/pump station, 4.3 acres of water quality basins, 9.7 acres of public streets, and 1.4 acres for the emergency secondary fire access road. The Project Applicant proposes to widen the segment of Pico Canyon Road that generally traverses the northern boundary of the Project site, in accordance with the approved alignment of the road east of the Project site; the improvements also will be consistent with the County's designation of the roadway as a major arterial. A 24-foot wide paved emergency vehicle access road to the east, connecting with Verandah Court, would be maintained to provide gated fire access through the roadway infrastructure of the private properties southeast of the Project site. The Project Applicant also proposes the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. The Project drainage design would require alteration to the confluence of Pico Creek and Wickham Canyon currently join after construction of Project water quality basins and "A" Street. The Canyon would be planted with indigenous trees and shrubs. Of the total 15 Coast Live Oaks on the site, the Project would remove one tree in the grading envelope. The remaining 14 Coast Live Oaks (including one Heritage tree) would not be impacted or endangered.

The Project Applicant is seeking the following discretionary actions to allow the proposed land use:

- Approval of a Vesting Tentative Tract Map for 121 total lots (102 single-family residential lots, two lots for water tanks/pump station, eight lots for open space/water quality basins, one lot for open space/fire access road, and eight lots for open space/landscape/natural) and
- Approval of a Conditional Use Permit (CUP) for a density-controlled development, density transfer from Urban land use category within a Hillside Management area, for development within a hillside management area exceeding the low density threshold, and permit for grading exceeding 100,000 cubic yards of soil materials.

Other required discretionary approvals include the following:

- Oak Tree Permit for the removal of one oak tree;
- Section 404 permit from the U.S. Army Corps of Engineers (USACE) for impacts to Waters of the U.S.;
- Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) for impacts to streams; and

- Section 401 Certification from the Los Angeles Regional Water Quality Control Board (LARWQCB) for impacts to surface water quality and Waters of the U.S.

Analysis of Project Impacts

Threshold LU 1:	Would the Project physically divide an established community?

Impact Statement 4.9-1: *The Project would not divide an established community. As such, no impacts would occur in this regard.*

The Project site is adjacent to residential uses to the east and undeveloped foothills to the north, south, and west. The proposed residential uses would be consistent and compatible with the adjacent single-family residential uses to the east. No impacts would occur in this regard.

Threshold LU 2:	Would the Project be inconsistent with the applicable County plans for the subject property including, but not limited to, the General Plan, specific plans, local coastal plans, area plans, and community/neighborhood plans?

Impact Statement 4.9-2: *The Project would be consistent with adopted regulatory policies in force at the time of the submittal of the Project application, as well as guidance documents and regulations governing the allowable land uses on the Project site. The Project would also be compatible with existing land uses in the Project vicinity. Land use impacts with respect to applicable plans would be less than significant.*

The development of the Project would be subject to designated land uses under the prior SCV Area Plan (1990), as well as the development regulations in the Los Angeles County Code, Title 22, and regional measures listed in SCAGs 2012 RTP and the Compass Blue Print Growth Vision. The Project's consistency with the applicable regulations and policies are addressed for both County and Regional measures. Two other Plans, the SCAG Plans, the Air Quality Management Plan and CMP, are addressed in other sections of this Draft EIR. Project consistency with the Air Quality Management Plan is analyzed in Section 4.2, *Air Quality*, and consistency with the CMP is addressed in Section 4.12, *Traffic/Transportation*.

Los Angeles County Draft General Plan 2035

The Los Angeles County General Plan 2035 (2014) is only in draft format; as such, the Project is not required to comply with the goals and policies of this draft General Plan that may change prior to adoption. The Project is compared to the applicable policies of the Draft General Plan in **Table 4.9-1**, *Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035*. In particular, the Project would be consistent with the General Plan as follows:

Table 4.9-1

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
Land Use Element	
Goal LU 6: Compatible land uses that complement neighborhood character and the natural environment	
Policy LU 6.1: Reduce and mitigate the impacts of incompatible land uses, where feasible, using buffers and other design techniques.	**Consistent:** The Project would be compatible in character and use with the existing, adjoining Southern Oaks residential subdivision located to the east of the Project site. Both subdivisions exhibit similar lot size, and the Project would be developed with high quality single-family homes that would enhance the residential character of the area. In addition, the Project would provide approximately 165 acres of open space (approximately 71 percent of the Project site), which would buffer natural areas to the south and west of the Project site from grading and development associated with the Project.
Policy LU 6.7: Protect rural communities from the encroachment of incompatible development.	**Consistent:** The Project would be compatible in character and use with the existing, adjoining Southern Oaks residential subdivision located to the east of the Project site. In addition, the Project would provide approximately 165 acres of permanent open space that would buffer rural and natural areas to the south and west from grading and development associated with the Project.
Policy LU 6.8: Encourage land uses and developments that are compatible with the natural environment and landscape.	**Consistent:** The Project would provide approximately 165 acres of open space that would be compatible in character with the existing natural hillsides and rural uses in the area. The prominent ridgelines and the ridgeline between Mentryville and developed area would be left in their natural conditions. The open space component would buffer the natural area to the south and west of the Project site from grading activities and development associated with the Project. Wickham Canyon, in the east sector of the Project site, would be planted with indigenous native trees and shrubs.
Policy LU 6.9: Encourage development in rural areas that is compatible with rural community character, preserves open space, conserves agricultural land, and promotes efficiencies in services and infrastructure.	**Consistent:** The Project would cluster development on 21.2 acres adjacent to an existing residential subdivision (Southern Oaks) and would preserve open space comprising 165 acres over the remainder of the property. The Project's open space component would be located in the south and west sectors of the property, in an area contiguous to existing natural and rural uses and, thus, would support the conservation and protection of those uses. Access to the Project site would be obtained via Pico Canyon Road, an existing master-planned arterial road. The clustering of the development in the northeastern sector of the Project site, which is nearest to existing development and service systems (water, wastewater, power, telecommunications, etc.) and more readily accessible from I-5 via Pico Canyon Road, would promote efficiencies in services, transportation, and infrastructure.

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
Goal LU 9: Well-designed and healthy places that support a diversity of built environments.	
Policy LU 9.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.	**Consistent:** The Project's open space component would be located in the south and west sectors of the property, in an area contiguous to existing natural and rural uses, and Wickham Canyon in the east sector of the Project site would be planted with indigenous native trees and shrubs. The interfacing of on- and off-site open space areas and re-vegetation of manufactured slopes would complement the natural environment in that area.
Policy LU 9.3: Consider the built environment of the surrounding area in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.	**Consistent:** The adjacent built environment is Southern Oaks, an approximately254-lot single-family subdivision, located at the south edge of Pico Canyon Road, which provides arterial access to the existing Southern Oaks subdivision and to the Project site. The Project would be designed with a variety of single-family home styles, including Craftsman, Spanish, Tuscan, Colonial and eclectic styles. Typical building materials include stucco, siding, and stone veneer. The materials and architectural styles would be similar to those implemented in the existing, adjacent subdivision.
Policy LU 9.12: Discourage gated entry subdivisions ("gated communities") to improve neighborhood access and circulation, improve emergency access, and encourage social cohesion.	**Consistent.** The Project entry would consist of a corner monument anchoring a split rail fencing system that leads into the Project. A 24-foot wide paved emergency vehicle access road, connecting with Verandah Court to the east, would be maintained to provide gated emergency fire access.
Goal LU 10: Development that utilize sustainable design techniques.	
Policy LU 10.1: Encourage new development to employ sustainable energy practices, such as utilizing passive solar techniques and/or active solar technologies.	**Consistent.** The Project would consist of construction of 102 single-family dwellings, which would be constructed with solar-ready rooftops that provide for the future installation of on-site solar PV or SWH systems.
Policy LU 10.2: Support the design of developments that provide substantial tree canopy cover, and utilize light colored paving materials and reflective roofing materials to reduce the urban heat island effect.	**Consistent.** The Project would utilize tree canopy cover, light colored paving, and light colored or reflective roofing materials where appropriate and applicable to reduce the heat island effect.
Policy LU 10.3: Encourage development to optimize the solar orientation of buildings to maximize passive and active solar design techniques.	**Consistent.** The development will optimize the solar orientation of buildings, to the extent possible, to allow windows and walls to passively collect and distribute solar energy. In addition, active solar collectors may be positioned to orient solar arrays to track the diurnal path of the sun.

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
Policy LU 10.4: Encourage subdivisions to utilize sustainable design practices, such as maximizing energy efficiency through lot configuration, maximizing interconnectivity, and utilizing public transit.	**Consistent.** The development will maintain an open space greenbelt around the developed area, with development located proximate to existing infrastructure and urban residential land uses
Policy LU 10.7: Encourage the use of density controlled design techniques to conserve natural resource areas.	**Consistent.** The clustering of development would improve efficiency of access to transportation and utilities. In addition, clustering would enable the preservation of approximately 165 acres of natural open space, which would conserve natural resource areas. The Project would incorporate a landscape plan that utilizes native and appropriate non-native drought tolerant species. Drought-tolerate, native landscaping would be used in public common areas to reduce water consumption.
Policy LU 10.8: Encourage sustainable subdivisions that meet green neighborhood standards, such as Leadership in Energy and Environmental Design – Neighborhood Development (LEED-ND).	**Consistent.** The development will utilize sustainable neighborhood design practices, such as lot configuration, interconnectivity, and public transit, to the extent possible, to maximize energy efficiency and reduce water and resource consumption.
Mobility Element	
Goal M1 Street designs that incorporate the needs of all users	
Policy M 1.1: Provide for the accommodation of all users, including pedestrians, motorists, bicyclists, equestrians, users of public transit, seniors, children, and persons with disabilities when requiring or planning for new, or retrofitting existing, roads and streets.	**Consistent.** The Project would improve Pico Canyon Road at the Project site consistent with the Circulation Plan for streets and highways to ensure adequate access for motorists, pedestrians, cyclists, and other users. Sidewalks meeting ADA standards would be constructed within all the subdivision's local street rights- of-way. Trail improvements on the Project site include a decomposed granite trail that would meander from the Project entry along both sides of "A" Street.
Goal M 2: Interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use.	
Policy M 2.1: Design streets that accommodate pedestrians and bicyclists, and reduce motor vehicle accidents through a context-sensitive process that addresses the unique characteristics of urban, suburban, and rural communities.	**Consistent.** The improvement of Pico Canyon Road as a major arterial in accordance with the Circulation Plan for streets and highways would accommodate pedestrians and cyclists and reduce accidents, while meeting the specific characteristics of the area (rural highway intersecting I-5)
Policy M 2.5: Ensure a comfortable bicycling environment.	**Consistent.** The Project would provide facilities for bicycle use, including room to accommodate Class II bicycle lanes on Pico Canyon Road. The Project would not conflict with the Metro Bicycle Transportation Strategic Plan to make cycling a viable travel choice by promoting links between bicycle facilities and the transit network (Stantec, page 4.15).

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
Policy M 2.9: Encourage the planting of trees along streets and other forms of landscaping to enliven streetscapes by blending natural features with built features.	**Consistent.** Street trees would be provided as feasible, with fire-retardant species and spaced to reduce fire hazard.
Conservation and Natural Resources Element	
Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County**.**	
Policy C/NR 1.1: Implement programs and policies that enforce the responsible stewardship and preservation of dedicated open space areas.	**Consistent.** The Project would dedicate 165 acres of natural open space. The open space may be managed by a conservancy or other agency, which would ensure responsible stewardship.
Policy C/NR 1.6: Prioritize open space acquisitions for available lands that contain unique ecological features, streams, watersheds, woodlands, grasslands, and/or offer linkages that enhance wildlife movements and genetic diversity.	**Consistent.** The proposed dedicated open space under the Project includes protection of 14 Coast Live Oaks, including one Heritage Oak. The permanent open space dedication would ensure preservation of these specimen trees.
Goal C/NR 3: Permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems including: habitat linkages, forests, coastal zone, riparian habitats, streambeds, wetlands, woodlands and SEAs**.**	
Policy C/NR 3.2: Create and administer innovative County programs incentivizing the permanent dedication of SEAs and other important biological resources as open space areas.	**Consistent.** The Project site is located within an SEA designated area under the 2012 Santa Clarita Valley Area Plan. Although this does not apply to the Project, mitigation measures would be implemented to reduce impacts to the area's biological resources to a less than significant level (see Section 4.3, *Biological Resources*, of this Draft EIR).
Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as SEAs.	**Consistent.** Although the SEA designation does not apply to the Project, mitigation measures would be implemented to reduce impacts to area's biological resources to a less than significant level (see Section 4.3, *Biological Resources*, of this Draft EIR).
Goal C/NR 4: Preserved and restored oak woodlands that are conserved in perpetuity with no net loss of existing woodlands.	
Policy C/NR 4.1: Conserve and sustainably manage oak woodlands.	**Consistent.** The Project would maintain the natural physical features of oak woodlands, prominent hillsides and drainages by clustering of residential uses. Of the 15 Coast Live Oaks within the property, one is located within the grading envelope. The loss of this tree would be mitigated as discussed in Section 4.3, *Biological Resources*, of this Draft EIR. The other 14 oak trees, including the site's one Heritage tree would not be directly affected by development. Preservation of the 14 Coast Live Oaks that will remain on the Project site would be protected by placing protective fencing during Project construction. In order to offset the removal of the one Coast Live Oak, mitigation measures will be implemented by replacing it

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
	with a minimum of two, 15-gallon replacement trees to be planted on the Project site. These replacement trees will be located in areas consistent with the fuel modification guidelines required by the Los Angeles County Fire Department (LACFD) and will be consistent with the overall Project design.
Goal C/NR 13: Protected visual and scenic resources.	
Policy C/NR 13.2: Protect ridgelines from incompatible development that diminishes their scenic value.	**Consistent.** The Project would protect prominent ridgelines and the major ridgeline between Mentryville and the developed area by maintaining these areas as permanent open space.
Policy C/NR 13.8: Manage development in HMAs to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.	**Consistent.** The Project would dedicate 165 acres of natural area to be maintained as permanent open space. The clustering of development would allow for engineered slopes and other safety measures that would minimize risk from fire, flood, erosion and landslides in an approximately 21-acre portion of the 230.5-acre property.
Policy C/NR 13.9: Consider the following in the design of a project that is located within an HMA, to the greatest extent feasible: ▪ Public safety and the protection of hillside resources through the application of safety and conservation design standards; ▪ Maintenance of large contiguous open areas that limit exposure to landslide, liquefaction and fire hazards and protect natural features, such as significant ridgelines, watercourses and SEAs.	**Consistent.** The approximately 21-acre developed area would be engineered for slope safety. The preservation of the majority (approximately 165 acres) of the site as natural open space would protect hillside resources and maintain a large contiguous open area with off-site natural hillsides. The Project would implement fire protection measures, including fire-retardant structures adjoining natural open space areas and fuel modification/ management to provide defensible space and assist in wildland fire suppression. Significant ridgelines would be maintained in their natural states.
Goal C/NR 14: Protected historic, cultural, and paleontological resources.	
Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.	**Consistent.** Mentryville and the historic Pico Canyon Oil Field Well No. 4, both state historic landmarks, are located approximately ¾ mile to the west of the Project site. An updated historical and archaeological resources survey and assessment was completed to determine the potential for Project activities to disturb cultural resources and respectively evaluated in Section 4.4, *Cultural Resources*, of this Draft EIR. As discussed in Section 4.4, any potential effects of the Project on these resources would be reduced to a less than significant level through the implementation of project design features and mitigation measures.
Policy C/NR 14.4: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).	**Consistent.** As a Project design feature, notification procedures to Native American tribes would be implemented in accordance with federal law (see Section 4.4, of this Draft EIR).

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.	**Consistent.** Project design features, notification and recovery procedures in accordance with state and federal law would be implemented (see Section 4.4, of this Draft EIR).
Parks and Recreation Element	
Goal P/R 4: Improved accessibility and connectivity to a comprehensive trail system including rivers, greenways, and community linkages.	
Policy P/R 4.4: Maintain and design multi-purpose trails in ways that minimize circulation conflicts among trail users.	**Consistent.** Trail improvements on the Project site include a decomposed granite trail that would meander from the Project entry along both sides of "A" Street. Improvements on Pico Canyon Road and development of the Project would not adversely impact the existing Pico Canyon Trail, a proposed 5.62-mile trail primarily adjacent to Pico Canyon Road, of which 0.6 mile exists. This trail would eventually provide access to Mentryville and meander through Pico Canyon in areas generally to the east and southeast of the Project site near the Project's proposed open space.
Noise Element	
Goal N 1: The reduction of excessive noise impacts.	
Policy N 1.2: Reduce exposure to noise impacts by promoting land use compatibility.	**Consistent.** As described in Section 4.10, *Noise*, of this Draft EIR, short - term noise impacts on existing sensitive receptors (residential uses along Pico Canyon Road and the Southern Oaks subdivision would be less than significant. Because the Project would be a compatible land use with respect to adjacent residential uses, long-term noise exposure would also be less than significant.
Safety Element	
Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.	
Policy S 1.1: Discourage development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.	**Consistent.** The Project is not located in a Seismic Hazard or Alquist_Priolo Earthquake Fault Zone, and no known active or potentially active faults exist within the Project site.
Policy S 1.3: Require developments to mitigate geotechnical hazards, such as soil instability and landslides, in Hillside Management Areas through siting and development standards.	**Consistent.** As discussed in Section 4.5, *Geology and Soils*, of this Draft EIR, Project design features, which include implementation of the County's grading and development standards, would reduce geological and geotechnical hazards, such as soil instability and landslides. A large portion (approximately 71 percent) of the Project site located in Hillside Management areas would be retained in its natural condition and not developed.
Goal S 3: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage	

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
due to fire hazards.	
Policy S 3.1: Discourage development in VHFHSZs, particularly in areas with significant biological resources.	**Consistent.** As discussed in Sections 4.7, *Hazards and Hazardous Materials*, and 4.11, *Public Services*, of this Draft EIR, Project design features, including implementation of a fire protection plan, use of fire-retardant construction for structures adjoining the natural open space areas, establishment of fuel modification/management zones to provide defensible space and assist in wildland fire suppression, use of fire retardant and drought tolerant landscaping, and installation of fire hydrants spaced at 600 feet or less would be implemented. In addition, the Permittee would comply with the Developer Fee Program, with the LACFD to further enhance fire protection to the proposed development. The preliminary fuel modification plan for the perimeter portions of the proposed development envelope would incorporate required set back zones, fire road clearance, long-term maintenance requirements, and conceptual planting. Each fuel modification zone would be designed to specifically address fire suppression. The zones would include requirements for minimum structure setbacks, permanent irrigation systems, fire retardant plants from a County-approved plant list, and landscape and planting maintenance. With the implementation of these features and other measures, fire hazard in the VHFHSZ would be reduced to a less than significant level.
Policy S 3.3: Ensure that the mitigation of fire related property damage and loss in VHFHSZs limits impacts to biological and other resources.	**Consistent.** Potential fire hazard would be mitigated, as discussed in Sections 4.7, *Hazards and Hazardous Materials*, and 4.11, *Public Services*, of this Draft EIR.
Policy S 3.4: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire resistant building materials and vegetation.	**Consistent.** Project design features include implementation of a fire protection plan, provision of a secondary emergency access road, use of fire-retardant construction for structures adjoining the natural open space areas, installation of smoke detectors and fire sprinklers, establishment of fuel modification zones, use of fire retardant and drought tolerant landscaping, and installation of fire hydrants spaced at 600 feet or less. In addition, the Permittee would comply with the Developer Fee Program, with the LACFD to further enhance fire protection to the proposed development. With the implementation of these features and other measures, wildfire hazard would be reduced to a less than significant level.
Policy S 3.6: Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in VHFHSZs.	**Consistent.** Mitigation measures and project design features described in Section 4.7, *Hazards and Hazardous Materials*, of this Draft EIR, to ensure that adequate fire flows are provided to the Project site, two, 250,000 gallon

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
	water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline within Pico Canyon would be constructed. Other features would ensure a minimum fire flow of 1,250 gpm at 20 psi residual pressure for a two-hour duration to all proposed single-family residences. In addition, the Project site is directly served by Pico Canyon Road, a major arterial, and the development incorporates a secondary emergency access road to ensure emergency ingress and egress.
Policy S 3.7: Consider siting and design for developments located within VHFHSZs, particularly in areas located near ridgelines and on hilltops, to reduce the wildfire risk.	**Consistent.** Proposed development would be clustered in an approximately 21-acre area in the vicinity of the Pico Canyon Road and existing residential subdivisions. With the dedication of the majority of the site (approximately 165 acres) as permanent open space contiguous to other existing natural open space, major hilltops and ridgelines would be preserved and undeveloped.
Public Services and Facilities Element	
Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.	
Policy PS/F 1.1: Discourage development in areas without adequate public services and facilities.	**Consistent.** The proposed development would be served by and adjacent to existing water, wastewater, and other utility lines located in Pico Canyon Road. The Project Applicant proposes two 250,000 gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline on Pico Canyon Road. This system would provide adequate water service to the Project.
Policy PS/F 1.2: Ensure that adequate services and facilities are provided in conjunction with development through phasing or other mechanisms.	**Consistent.** The area is served by the Saugus and Valencia Water Reclamation Plants, the latter of which is anticipated for expansion. The Castaic Lake Water Agency is the wholesale water supplier to the Valencia Water Company, the retail water purveyor that provides water to the Project site. Existing water resources include wholesale (imported) supplies, local groundwater, recycled water, and water from existing groundwater banking programs. Planned supplies include new groundwater production as well as additional banking programs. As concluded in the 2010 UWMP, the CLWA and the retail purveyors have adequate supplies to meet CLWA service area demands. As such, these, and other service systems are adequate to serve the Project site.
Goal PS/F 2: Increased water conservation efforts.	
Policy PS/F 2.1: Implement water conservation measures, such as drought tolerant landscaping and restrictions on water used for landscaping.	**Consistent.** The Project would comply with applicable provisions of the CALGreen code to increase water efficiency through the installation of drought-tolerant landscaping and low-water consumption irrigation

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
	systems. Domestic water demand would be reduced with the installation of water efficient plumbing fixtures. In addition, implementation of water conservation measures such as those required by Titles 20 and 24 of the California Administrative Code would ultimately reduce water demand. On-site developed-area drainage would be diverted to wetland filtration ponds for water quality cleansing prior to discharge into Pico Creek.
Goal PS/F 5: Adequate disposal capacity and minimal waste and pollution.	
Policy PS/F 5.5: Reduce the County's waste stream by minimizing waste generation and enhancing diversion.	**Consistent.** The Project site is located within the service area of the Sunshine Canyon Landfill and Chiquita Canyon Landfill. The Sunshine Canyon Landfill has a maximum permitted throughput of 12,100 tons per day and an estimated closure date of December 31, 2037. The Project would provide recycling containers and appropriate storage areas for residential and public use to decrease the Project's solid waste disposal demand.
Policy PS/F 5.6: Encourage the use and procurement of recyclable and biodegradable materials.	**Consistent.** The Project would incorporate the use of recyclable and biodegradable materials where appropriate and economically feasible. Materials may include, but are not limited to, gypsum board, insulation, steel, ceramic tile, countertops, trim, and carpet/carpet padding.
Policy PS/F 5.7: Encourage the recycling of construction and demolition debris generated by public and private projects.	**Consistent.** The Project would comply with applicable provisions of the CALGreen code to reduce resource consumption. The Project would also recycle, reuse, and/or divert 70 percent of non-hazardous construction waste as required by the Los Angeles County Green Building Program.
Policy PS/F 5.9: Encourage the availability of trash and recyclables containers in new developments, public streets, and large venues.	**Consistent.** The Project would comply with applicable provisions of the CALGreen code to reduce resource consumption by ensuring that trash and recyclable containers are provided to future residents, in accordance with County requirements.
Goal PS/F 7: A County with adequate educational facilities.	
Policy PS/F 7.2: Proactively work with school facilities and education providers to coordinate land use and facilities planning.	**Consistent.** The Project would introduce 102 single-family detached residential dwellings that would generate a population of 306 residents and a total of 74 school-aged children. In accordance with Section 65995 of the California Government Code (CGC), the Permittee would pay fees to the Newhall School District and the William S. Hart Union High School District in anticipation of future demand.
Goal PS/F 8: A comprehensive public library system.	
Policy PS/F 8.2: Support library mitigation fees that adequately address the impacts of new development.	**Consistent.** The 480-square-foot Stevenson Ranch Express Library opened in 2012 and served the Project area. The LACPL opened a new, nearly 12,000 square-foot

Table 4.9-1 (Continued)

Comparison of the Project to Applicable Policies of the Draft Los Angeles County General Plan 2035

Policy	Analysis of Project Consistency
	replacement library in March 2015 To ensure that the Project pays its fair share of costs, the Permittee will comply with the Developer Fee Program for the LACPL as provided in Los Angeles County, Code of Ordinances, Title 22, Planning and Zoning, Division 2, Additional Regulations, Chapter 22.742, Library Facilities Mitigation Fee.
Economic Development Element	
Goal ED 1: An economic base and fiscal structures that attract and retain valuable industries and businesses	**Consistent.** The Project would not be developed within an area designated for industrial or commercial use. Therefore, it would not diminish the potential for these uses to be attracted to the area or for such uses to be retained.
Goal ED 2: Land use practices and regulations that foster economic development and growth.	**Consistent.** The residential expansion represented by the Project would increase demand for goods and services in the area and, thus, foster economic development and growth.

Source: PCR Services Corporation, 2014.

Santa Clara Valley Area Plan

The Project is compared to the applicable policies of the 1990 SCV Area Plan in **Table 4.9-2**, *Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan*, below. As discussed in Table 4.9-2, the Project would be consistent with applicable policies of the 1990 SCV Area Plan in that it would not exceed population projections and would be consistent with the Plan's land use designations of W, U-2, and HM. The Project would be consistent with existing and planned capacities of the area's infrastructure and would be served by existing power, water, and wastewater lines along Pico Canyon Road. The Project would be consistent with the Plan's intended pattern of population and land use distribution and proposed concentration of development in that it would provide a residential cluster adjacent to an existing residential subdivision within the immediate proximity of Pico Canyon Road, a master-planned arterial and highly urbanized area in the vicinity of I-5, approximately 1.5 miles to the east of the Project site. The Project would be consistent with the area's existing pattern of development, which is concentrated and provides for a broad range of uses. The Project would be consistent with Plan policies to take into consideration the sensitivities of natural environmental systems, hazards and other constraints, and infrastructure service capacities by preserving approximately 165 acres of natural open space (approximately 71 percent of the Project site), mitigating impacts to biological resources within the Project's grading perimeter, reducing potential fire hazards to acceptable levels, and locating adjacent to existing infrastructure and service systems. In addition, the Project would provide housing in an existing urbanized area with nearby services, employment opportunities, and proposed transit infrastructure.

Table 4.9-2

Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan

Policy	Analysis of Project Consistency
LAND USE ELEMENT	
Accommodation of Projected Land Use and Urban Growth	
1.1 Accommodate the year 2010 population and land use demand as projected for the Santa Clarita Valley, designating sufficient area for appropriate use and a reasonable excess to provide adequate flexibility.	**Consistent:** The density of the Project is consistent with the existing zoning of the property and, with the implementation of a CUP to allow for clustering and transfer of density, the Project would be consistent with the SCV Area Plan's U-2 and HM land use designations of the site. Population projections for the area are based on existing zoning and General Plan land use designations, which anticipate urban growth at the site. Considerable growth is anticipated in just the City of Santa Clarita under SCAG's 2012 RTP. The RTP's projected population for Santa Clarita is 175,900 in 2008, 201,900 in 2020, and 237,100 in 2035. Based on an anticipated average household size of 2.87 residents,[a] the Project would generate approximately 293 residents. The 1990 SCV Area Plan anticipated a buildout population of 270,000 and 93,400 housing units by 2010. The 2012 "One Valley, One Vision" Plan anticipates a buildout population of approximately 460,000 to 485,000 residents, comprising approximately 150,000 to 155,000 households over a 20-year planning period (to approximately 2032-2035). The Project's population increase of approximately 293 residents would represent a small portion of the anticipated growth in the region. Because the Project is consistent with designated land use and anticipated buildout under the 1990 plan, it would be consistent with population and land use demand as projected for the Santa Clarita Valley.
1.2 Closely monitor growth in the Santa Clarita Valley, so that growth does not exceed the capacity of the existing or planned infrastructure nor result in significant negative environmental impacts.	**Consistent:** The Project is consistent with designated land use and anticipated buildout under the 1990 SCV Area Plan. Infrastructure, including proximity to Pico Canyon Road, a planned major arterial, and services, including power and water and wastewater lines in Pico Canyon Road, as well as available solid waste capacity at Sunshine Canyon Landfill and wastewater treatment capacity at the Saugus and Valencia Water Reclamation Plants are currently available. The Project would not exceed the capacities of these services nor result in adverse impacts related to demand.
1.3 Provide for development in the study area which is consistent with the plan, and to encourage other governmental and private agencies to do the same.	**Consistent:** The Project would be consistent with the 1990 SCV Area Plan's land use designations of W, U-2, and HM for the Project site and with the existing zoning of A-2-2.
1.5 Phase development approvals, necessary, to assure that infrastructure is operational at demand is created.	**Consistent.** As stated under 1.2, above, existing infrastructure is adequate to serve the proposed development.

Table 4.9-2 (Continued)

Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan

Policy	Analysis of Project Consistency
Pattern of Population and Land Use Distribution	
2.1 Accommodate population and land use growth in a concentrated, rather than dispersed, pattern, providing for a broad range of densities and types of uses.	**Consistent**. The Project would consist of a residential cluster adjacent to an existing approximately 254-unit residential subdivision (Southern Oaks) and the more expansive Stevenson Ranch subdivisions, as well as mixed urban development in the proximity of I-5. The Project site is also within the immediate proximity of Pico Canyon Road, a master-planned arterial that intersects I-5 approximately 1.5 miles to the east of the Project site. The Project would be consistent with the area's existing pattern of development, which provides for a broad range of uses.
2.2 Determine future land use growth in the Santa Clarita Valley by considering the following criteria: a. Sensitivities of natural environmental systems, b. Hazards or constraints of natural environmental systems of land use, c. Infrastructure and service capacities, and d. Need for the project.	**Consistent**. The Project would preserve approximately 165 acres of natural open space (approximately 71 percent of the Project site) to mitigate impacts to biological resources within the grading perimeter, reduce potential fire hazards to acceptable levels, and be located in an area with existing infrastructure and service systems. In addition, the Project would provide housing in an existing urbanized area with nearby services, employment opportunities, and proposed transit infrastructure. The City of Santa Clarita Transit (SCT) currently does not operate transit lines within close proximity (typically defined as ¼ mile) to the Project site. The nearest transit lines are Routes 5 and 6, which provide service between Newhall, Stevenson Ranch and Canyon Country (Shadow Pines and north of Sierra Highway) with stops at the Newhall and Santa Clarita (Soledad) Metrolink stations. The Newhall Station and Santa Clarita Station are located approximately 3.88 miles east and 4.77 miles northeast of the Project site, respectively. Additional routes, accessible from these routes, provide service to the greater Santa Clarita Valley area. Future bus transit routes are anticipated to be extended along Pico Canyon Road in the Project vicinity by SCT as a part of a comprehensive valley-wide transit system. The SCT Commuter Express offers express commuter bus travel to Downtown Los Angeles, Warner Center, Van Nuys, Century City and the Antelope Valley. Three Metrolink Antelope Valley Line stations exist within the City. This line travels between Lancaster and Union Station in Los Angeles. The City also operates approximately 20 supplemental school day service routes to serve students. The supplemental school day service routes provide transit service to various areas within the Santa Clarita Valley and are available on school days during peak morning and afternoon travel times. As such, the Project would be consistent with determination criteria.

Table 4.9-2 (Continued)

Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan

Policy	Analysis of Project Consistency
2.4 Consider residential densities as averages to allow for the clustering of development and/or transfer of unit credit as provided for in the Plan.	**Consistent.** The existing zoning (A-2-2) allows one unit per two acres for a total of approximately 115 units over the 230.5 acre site. Clustering of development within an approximately 20.8-acre portion of the Project site and the transfer of density between the Santa Clarita Area Plan's U-2 and HM designations, would allow for the preservation of approximately 77 percent of the Project site in a natural condition and improve efficiency.
2.5 Allow for density transfer (the rearrangement of allowed residential units among various land use classifications on a project site) as a means to attain plan goals such as preservation of hillsides, and to promote superior design and allow flexibility to respond to changing housing needs.	**Consistent.** See response under 2.4, above.
Costs of Population and Urban Growth	
3. 1 Ensure that costs of population and urban growth are borne by those who benefit.	**Consistent.** The Permittee would pay for improvements to Pico Canyon Road and provide utility infrastructure from existing termini to the Project site. In addition, the Permittee would pay fees to the Newhall School District and the William S. Hart Union High School District in anticipation of future demand would comply with the Developer Fee Program for the LACPL and would pay parkland dedication or Quimby fees and the Residential Subdivision (Local Park Space Obligation Formula), Residential Subdivisions (Provision of Local Park Sites) and Park Fees.
3.2 Require that new development fund the entire cost of all of the infrastructure demand created by the project.	**Consistent**. As discussed under 3.1, above, the Permittee would pay for improvements to infrastructure that serves the Project site and would pay school, library, and park fees.
Environmental Hazards and Constraints	
4.1 In areas deemed significantly hazardous to the health, safety and welfare of the public, limit future development unless appropriate corrective measures are implemented.	**Consistent.** As discussed in Sections 4.7, *Hazards and Hazardous Materials*, and 4.11, *Public Services*, of this Draft EIR, the Project is located within a VHFHSZ. Project design features, including implementation of a fire protection plan, use of fire-resistant construction for structures adjoining the natural open space areas, establishment of fuel modification/management zones to provide defensible space and assist in wildland fire suppression, use of fire resistant and non-native drought tolerant landscaping, and installation of fire hydrants spaced at 600 feet or less would be implemented. In addition, the Permittee would comply with the Developer Fee Program, with the LACFD to further enhance fire protection to the proposed development. The preliminary fuel modification plan for the perimeter portions of the

Table 4.9-2 (Continued)

Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan

Policy	Analysis of Project Consistency
	proposed development envelope would incorporate required set back zones, fire road clearance, long-term maintenance requirements, and conceptual planting. Each fuel modification zone would be designed to specifically address fire suppression in different ways. The zones would include requirements for minimum structure setbacks, permanent irrigation systems, fire retardant plants from a County-approved plant list, and landscape and planting maintenance. With the implementation of these features and other measures, fire hazard in the VHFHSZ would be reduced to a less than significant level.
4.2 Designate areas of excessive slope (exceeding 25 percent) as "Hillside Management Areas", with performance standards applied to development to minimize potential hazards such as landslides, erosion, excessive run-off and flooding.	**Consistent.** A large portion of the Project site is designated as "Hillside Management." This designation would constrain density of development and result in the preservation of approximately 165 acres (approximately 71 percent of the site) as permanent natural open space. Grading would be engineered in accordance with the Los Angeles County Grading Manual and existing drainage channels would be ungraded. Additional discussion of the Project's consistency with the Hillside Management designation is provided under Threshold LU-4.9-4, below.
4.3 Designate areas within floodways, or river channels, and their surrounding floodplains as "Floodplain Management Areas".	**Consistent.** The portion of the Project site which contains existing drainage facilities is designated as W (floodway plain). This designation will not allow occupied dwellings or other occupied uses, and the project design proposes no residential uses within the floodway.
Environmental Sensitivities	
5. 1 Direct future growth away from areas exhibiting high environmental sensitivity to development unless appropriate mitigating measures can be implemented.	**Consistent.** Development would be clustered adjacent to existing urban development (single-family homes, elementary school, and other uses in the Pico Canyon Road area) to the east of the Project site. The portion of the Project site proposed for preservation (permanent natural hillside) is located in the south and west of the Project site adjacent to off-site natural and more environmentally sensitive areas. In addition, the proposed preserved natural open space area contains prominent ridgelines and the majority of the Project's Coast Live Oaks, which would be preserved by clustering development.
5.2 Minimize disruption and degradation of the environment as development occurs, working with nature in the design of land uses so that they are compatible with natural environmental systems.	**Consistent.** Wickham Canyon in the east sector of the Project site would be planted with indigenous native trees and shrubs. The open space component would buffer the natural area to the south and west of the Project site from development associated with the Project.

Table 4.9-2 (Continued)

Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan

Policy	Analysis of Project Consistency
5.5 Minimize environmental degradation by enforcing controls on sources of pollutants (including visual pollution and noise).	**Consistent.** The Project would not exceed adopted light, noise and air quality standards and would not be a substantive source of disruptive pollution (see Sections 4.1, *Aesthetics,* 4.2, *Air Quality*, 4.6, *Greenhouse Gas Emissions*, and 4.10, *Noise*, of this Draft EIR.
Land Use Compatibility	
6.1 Encourage the appropriate mix of land use types to prevent disharmony and degradation. Residential, commercial, employment, recreational, and cultural uses should be integrated using appropriate buffering techniques to create a cohesive community.	**Consistent.** The Project would be located within the vicinity of an existing single-family residential neighborhood. Setbacks of a minimum of 400 feet from the adjacent residential neighborhood would not cause the degradation of the latter. The Project would provide community character similar to adjacent Stevenson Ranch neighborhoods, including the Southern Oaks community to the east. Commercial and employment uses exist to the east of the Project site and recreational uses are present both to the west and to the east of the Project site.
Impact of Transportation on Future Land Use Patterns and Provision of Adequate Transportation Systems	
9 .1 Minimize travel time by concentrating community facilities, intensifying land use densities, and establishing central shopping and industrial facilities.	**Consistent.** The Project would be located within two miles west of large-scale shopping malls, restaurants, schools, employment opportunities, and other uses that would provide nearby destinations for education, shopping, entertainment, and employment.
COMMUNITY DESIGN ELEMENT	
Compatibility and Proximity of Urban Activities	
1.1 Mitigate where possible undesirable impacts of development on adjacent land uses through utilization of appropriate buffers, building codes and standards.	**Consistent**. The Project would be broadly set back from adjacent residential uses, as well as separated from the nearest off-site uses by an existing drainage. Visibility between the residential subdivisions would be reduced by topographic features. Cut and fill slopes would be revegetated to soften the appearance of the Project's grading. Because of the broad setbacks, obscured visibility, and compatibility of use (single-family residences), the Project would not cause an undesirable visual impact relative to the adjacent uses.
Relationship of Urban and Natural Environments	
2.1 Carefully integrate physical development in rural areas into the natural environmental setting.	**Consistent.** The Project would provide approximately 165 acres of open space that would preserve major ridgelines and buffer the natural setting to the south and west of the Project site. The Project's open space component would be located in the south and west sectors of the property, in an area contiguous to existing natural and rural uses. The Wickham Canyon area in the east sector of the Project site would be planted with indigenous native trees and shrubs. The interfacing of on- and off-site open space areas and re-

Table 4.9-2 (Continued)

Comparison of the Project to Applicable Land Use and Community Design Policies of the 1990 Santa Clarita Valley Area Plan

Policy	Analysis of Project Consistency
	vegetation of manufactured slopes would complement the natural environment in that area.
Physical Appearances - Community Image	
3.2 Require that all new power distribution networks, communication lines, and other service network facilities be located underground wherever practical. Transmission lines should be located underground where feasible.	**Consistent.** All service lines to the Project site would be underground.
3.5 Encourage planting of street trees in urban portions of the Santa Clarita Valley.	**Consistent.** The Project would provide street trees along street frontages, interior to and abutting the Project site.
3.6 Review periodically the adequacy of the County's ordinance to protect oak and other significant trees. –	**Consistent.** One Coast Live Oak, which is located in the development area, would be removed under the conditions set forth in the proposed Oak Tree Permit (County Code Sec. 22.56.2050 *et seq*.). Mitigation measures include replacement planting. The remaining 14 on-site Coast Live Oaks, one of which is Heritage Oak, would be preserved. The permanent open space dedication would ensure preservation of these specimen trees.

[a] *Household size is based on the 2012 RTP Growth Forecast Appendix, which, for the Santa Clarita area, anticipates 201,100 residents and 70,100 households by 2020. Population divided by households equals 2.87 persons per household.*

Source: PCR Services Corporation, 2014.

Southern California Association of Governments 2012 – 2035 Regional Transportation Plan and Sustainable Communities Strategy

SCAG's 2012 – 2035 Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS) provides a guiding vision for development in the region and a basis for planning infrastructure improvements. SCAG's mission is to develop long-range regional plans and strategies that provide for efficient movement of people, goods, and information; enhance economic growth and international trade; and improve the environment and quality of life. The RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375 (see Section 4.6, Greenhouse Gas Emissions, of this Draft EIR), improve public health, and meet the National Ambient Air Quality Standards set forth in the Clean Air Act (see Section 4.2, Air Quality, of this Draft EIR). According to the RTP/SCS, the plan "provides a blueprint for improving quality of life by providing more choices for where people will live, work, and play, and how they will move around. Its safe, secure, and efficient transportation systems will provide improved access to opportunities, such as

jobs, education, and healthcare. Its emphasis on transit and active transportation will allow residents to lead a healthier, more active lifestyle."[7]

Areas receiving additional growth between 2020 and 2035 are anticipated to be well served by transit, with a mix of uses and other design elements that would relatively reduce the need for auto travel. As shown in Exhibit 4.9 High Quality Transit Areas (HQTA) SCAG Region, of the RTP/SCS, while the Project site is not located within a HQTA; a HQTA is located in the vicinity of Lyons Avenue and State Highway 126, approximately 1.36 miles to the east of I-5 and 2.5 miles to the east of the Project site. Exhibit 4.10, Transit Network SCAG Region, of the RTP/SCS shows the I-5 corridor in the Project vicinity as an existing (2008) Metrolink route. Exhibit 4.11, Proposed Bikeway Network SCAG Region, of the RTP/SCS shows the I-5 corridor in north County and Pico Canyon Road as existing, locally proposed, or SCAG proposed bikeways. Exhibit 4.12, Proposed Highway Improvements SCAG Region, of the RTP/SCS shows HOV connectors along the I-5 corridor in the Project vicinity. Exhibit 2.4, Rail Transit System 2035, of the RTP/SCS shows existing rail transit (2010) extending from metropolitan Los Angeles to the Santa Clarita area.

Exhibit 4.1, Population Growth SCAG Region (2008-2035), of the RTP/SCS shows the Santa Clarita Valley area, both to the east and west of I-5 as a center of population growth in the north County; Exhibit 4.2, Employment Growth SCAG Region (2008-2035), of the RTP/SCS shows the same area as a regional of employment growth; and Exhibit 4.3, Housing Growth SCAG Region (2008-2035), of the RTP/SCS shows the Santa Clarita Valley area as a center of housing growth.

Table 4.9-3, Consistency of the Project with Applicable Policies of the 2012 – 2035 Regional Transportation Plan Sustainable Communities Strategy, below, compares the Project to applicable goals and performance standards of RTP/SCS. As discussed in Table 4.9-3, the location of the proposed development, with access to

Table 4.9-3

Consistency of the Project with Applicable Goals of the 2012 - 2035 Regional Transportation Plan Sustainable Communities Strategy

Goal[a]	Analysis of Project Consistency
2012 – 2035 Regional Transportation Plan – Sustainable Community Strategy Goals	
Align the plan investments and policies with improving regional economic development and competitiveness	**Consistent:** This policy pertains to SCAG funding and policies. The Project would not adversely affect the capacity to align plan investments and policies with economic development and competitiveness. The Project would provide regional economic benefits consistent with other RTP policies as discussed below, and the Project site is located 2.5 miles to the west of what SCAG has referred to as HQTA and would support SCAG choices regarding this policy.

[7] *SCAG, 2012-2035 RTP/SCS, page 1.*

Table 4.9-3 (Continued)

Consistency of the Project with Applicable Goals of the 2012 - 2035 Regional Transportation Plan Sustainable Communities Strategy

Goal[a]	Analysis of Project Consistency
Maximize mobility and accessibility for all people and goods in the region.	**Consistent:** The location of the proposed development, with access to a HQTA (within 2.5 miles), Metrolink, and HOV improvements, as well as the regional freeway system, would maximize mobility and the accessibility. Future bus transit routes are anticipated to be extended along Pico Canyon Road in the Project area by Santa Clarita Transit as part of a comprehensive valley-wide transit system. In addition, the vicinity of Pico Canyon Road and Lyons Avenue along the I-5 corridor is highly developed with a mix of low to high-density housing, shopping malls, restaurants, hotels, services, industrial and commercial uses, and schools. The intensity and proximity of urban development to the Project site supports the goal to maximize mobility and accessibility for people and goods in the area.
Ensure travel safety and reliability for all people and goods in the region.	**Consistent:** The Project would improve Pico Canyon Road and provide a trail system with the development and sidewalks to ensure travel safety. Project residents would have pedestrian access and bicycle access to a large range of goods and services in the vicinity of Pico Canyon Road and a range of transportation alternatives available to meet their transit needs.
Preserve and ensure a sustainable regional transportation system.	**Consistent:** The proximity of the Project to alternative transit modes, bike paths, and trails, and proposed bus routes, as well as regional transit systems would support the region's transportation investment and the sustainability of the regional transportation system.
Maximize the productivity of our transportation system.	**Consistent:** The Project would locate a residential use in an area that would be served by Santa Clarita Transit as part of a comprehensive valley-wide transit system. This would maximize the productivity of the transportation system and, as such, would be consistent with this goal.
Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	**Consistent:** The Project would implement design features and mitigation measures to reduce air quality impacts, including the incorporation of energy-saving features (see Sections 4.2, *Air Quality*, and Section 4.6, *Greenhouse Gas Emissions*, of this Draft EIR). Project impacts on air and GHG emissions would be less than significant. Active transportation, including bike paths, trails, and a Santa Clarita Transit line on Pico Canyon Road would encourage alternative transit modes.
Actively encourage and create incentives for energy efficiency, where possible.	**Consistent**. The Project would include design features and be subject to building regulations that would reduce the demands for energy resources needed to support Project operation. The Project's sustainability features and their contributions to reducing Project impacts are described in more detail in the following Draft EIR Sections**:** Section 4.6, *Greenhouse Gas Emissions*; 4.8, *Hydrology and Water Quality*; 4.11, *Public Services*.

Table 4.9-3 (Continued)

Consistency of the Project with Applicable Goals of the 2012 - 2035 Regional Transportation Plan Sustainable Communities Strategy

Goal[a]	Analysis of Project Consistency
Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	**Consistent:** The Project would intensify development in an area anticipated to be served by Metrolink, and HOV improvements, as well as the regional freeway system and Santa Clarita Transit in Pico Canyon Road, as well as sidewalks, trails and bike paths.
Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Consistent:** This goal pertains to security provided by regional service agencies. The Project would not adversely affect the ability of the service agencies to perform their duties. The Project would support economic growth and increased use of public transportation systems that would generate revenue that could be used to support security of the regional transportation system.

[a] *Goals are based on RTP/SCS Table 1.3, RTP/SCS Goals and Related Performance Outcomes, pages13 and 15.*

Source: PCR Services Corporation, 2014

a HQTA, Metrolink, and HOV improvements, as well as the regional freeway system, would be consistent with RTP/SCS goals to maximize mobility and accessibility in the region. The intensity and proximity of urban development to the Project site supports also the goal to maximize mobility and accessibility for people and goods in the area. The proximity of the Project to alternative transit modes, bike paths, and trails, and proposed bus routes, as well as regional transit systems would support the region's transportation investment and the sustainability of the regional transportation system.

The Project would support RTP/SCS goals to ensure travel safety by improving Pico Canyon Road and provide a trail system with the development and sidewalks to ensure travel safety. Project residents would have pedestrian access and bicycle access to a large range of goods and services in the vicinity of Pico Canyon Road and a range of transportation alternatives available to meet their transit needs.

The Project would implement design features and mitigation measures to reduce air quality impacts, including the incorporation of energy-saving features (see Sections 4.2, *Air Quality*, and Section 4.6, *Greenhouse Gas Emissions*, of this Draft EIR). Project impacts on air and GHG emissions would be less than significant. Active transportation, including bike paths, trails, and a Santa Clarita Transit line on Pico Canyon Road would encourage alternative transit modes and improve air quality. The Project would support energy efficiency by including design features and building regulations to reduce demand for energy resources. Because the Project would be substantially consistent with the goals and performance standards of the RTP/SCS, impacts with respect to this plan would be less than significant.

Conclusion

As discussed in Tables 4.9-1 through 4.9-3 and summarized above, the Project would be substantially consistent with applicable policies of local and regional land use plans. Therefore, impacts with respect to Threshold LU-2 would be less than significant.

Mitigation Measures

No potentially significant land use impacts regarding local and regional land use plans have been identified and no mitigation measures are required.

Threshold LU 3: Would the Project be inconsistent with the County zoning ordinance as applicable to the subject property

Impact Statement 4.9-3: The proposed land uses would be consistent with the provisions of the County zoning ordinance, which allow for single-family residential uses within the A-2-2 zone designation and density-controlled development under a CUP defined in Section 22.56.205. Impacts with respect to this threshold would be less than significant.

The Project is zoned A-2-2 (Heavy Agriculture), which allows for single-family residential uses on a two-acre minimum lot size per unit. A maximum of 115 residential units would be allowed on the approximately 230.5-acre Project site under the overall A-2-2 zone (one residential unit per 2 acres). However, because much of the site is located within a Hillside Management area (greater than 25 percent slope), development cannot be dispersed over the site and two-acre lots are not achievable. To achieve the proposed development of 102 residential lots, a CUP for density controlled development (clustering) under Section 22.56.205 of the County Code would be required. Under the proposed CUP, the Project's 102 single-family residential units would be clustered within an approximately 20.8-acre portion of the Project site and approximately 165 acres of undeveloped natural area would be permanently preserved as natural open space in addition to 25.1 acres of landscape area for a total of 190.1 acres (82.5 percent); refer to **Figure 4.9-3**, *Open Space Exhibit*. With the implementation of the CUP for density control, the Project would not exceed the total number of residential lots allowed under the A-2-2 zone. Because the Project would be consistent with the zoning provisions of the County Code, impacts with respect to this threshold would be less than significant. The consistency of the Project with other applicable Code regulations is described under Threshold LU-4, below.

Mitigation Measures

No potentially significant land use impacts regarding zoning have been identified and no mitigation measures are required.

Threshold LU-4: Would the Project conflict with Hillside Management criteria, SEA conformance criteria, or other applicable land use criteria?

Impact Statement 4.9-4: The Project would exceed the density threshold under Hillside Management criteria by 6 residential units. In addition, the Project would require the removal of one oak tree. With an

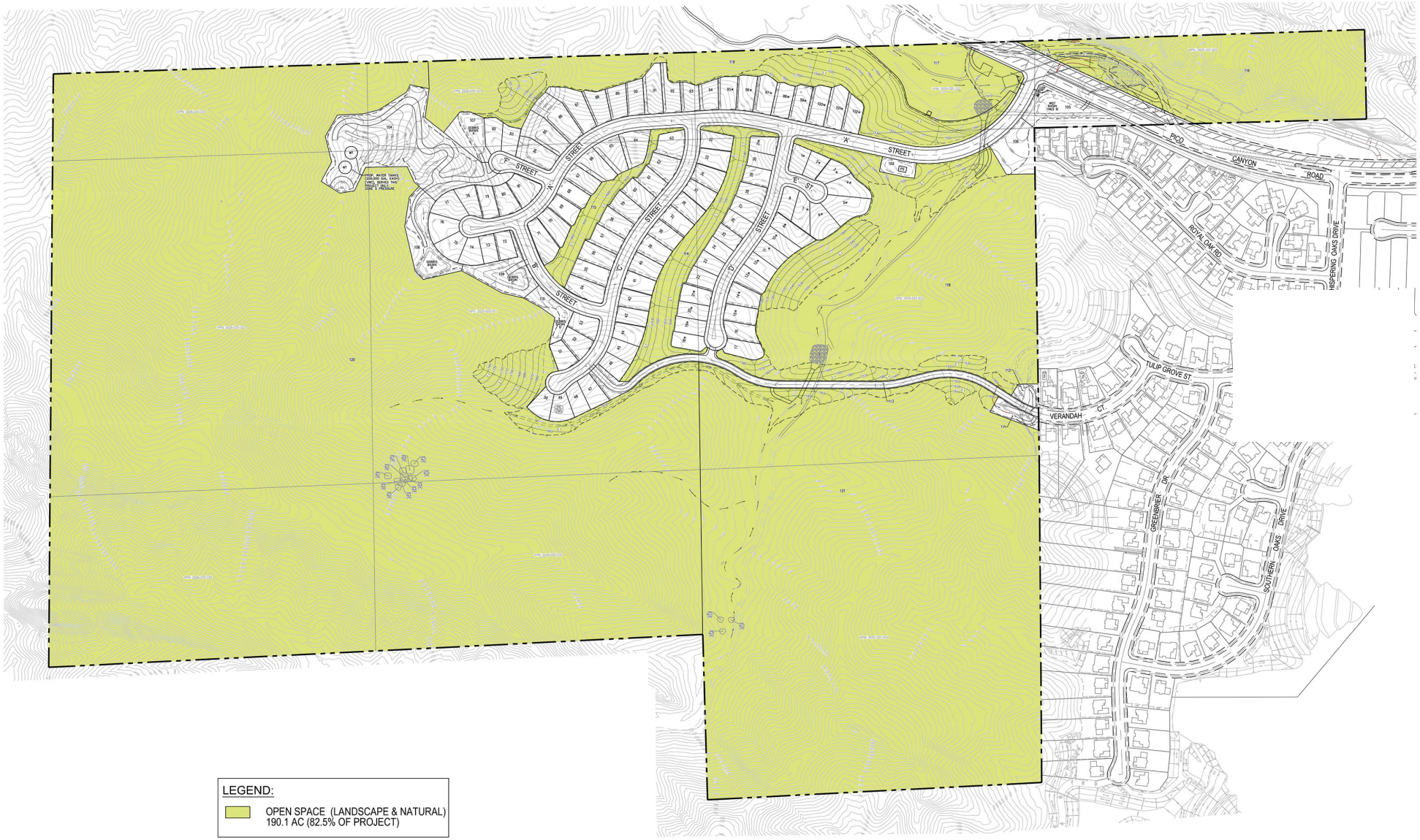
approved CUP to allow the transfer of 6 units from the U-2 to the HM designation, approval of a grading plan for Projects exceeding 10,000 cy, and approval of an Oak Tree Permit, in accordance with County Code requirements, the Project would be consistent with Hillside Management density criteria and the County's Oak Tree Ordinance. SEA conformance criteria are applicable under the 1990 Santa Clarita Valley Area Plan for parcels with an SEA overlay, which the Project site does not have. Because the Project would be subject to CUP Hillside Management and grading requirements, as well as Oak Tree Permit requirements set forth in the County Code, land use impacts with respect to this threshold would be less than significant.

The Project site is located within three designated land use areas. Approximately 4.5 acres of the Project site are designated as W (floodway/floodplain), within which any residential development is prohibited; 24.1 acres are designated as U-2 (urban), which allows a density range of 3.4 to 6.6 residential units per acre; and HM, or Hillside Management, which consists of slopes greater than 25 percent and in which development is constrained. The purpose of the Hillside Management regulation (Title 22, Section 22.56.215) is to protect resources contained within Hillside Management areas from incompatible development, which has the potential to result in environmental degradation. It is not the purpose of Section 22.56.215 to preclude development within these areas but to ensure, to the extent possible, that such development maintains and where possible enhances the natural topography, resources and amenities of the Hillside Management areas, while allowing for limited controlled development therein.

The percentage of the Project site located within the County Code's range of slope criteria for Hillside Management areas is presented in **Table 4.9-4**, *Project Site Slope Analysis*. As shown in Table 4-9-4, approximately 54.8 acres are located within the Hillside Management area and approximately 147.1 acres are located within the Hillside Management "1/4 mile" area. Under the Hillside Management "1/4 mile" criteria, Hillside Management areas in the 25-50 percent slope range located within 1/4 mile of an existing urban land use category, may have an increased density of one unit per acre versus the usual one unit per two acres in the typical Hillside Management areas.

The number of units allowed under the Project site's land use designations is presented in **Table 4.9-5,** *Density Calculation Table*. As shown in Table 4.9-5, approximately 69 units would be allowed under the constrained Hillside Management designation. The Project site would allow a maximum of 95.1 units under the "low yield" density threshold and a maximum of 228.6 units under the "high yield" density range. Any exceedance of the "low yield" density threshold would require a CUP for density transfer in accordance with Section 22.56.215. The mid-point density would be 161 units.

Table 4.9-6, *Density Transfer Summary*, illustrates the required transfer of density from the U-2 to the Hillside Management designation that would be needed to be consistent with the proposed Section 22.56.215 CUP and to meet the objectives of the Project (102 units) As described in Table 4.9-6, the maximum units permitted according to the slope analysis would be 69. To develop 75 units in the Hillside Management designated area (for a total of 102 units under the designated land uses) 6 units would need to be transferred from the U-2 designation to the Hillside Management designation. Units transferred from U-2 to Hillside Management would involve lots No. 4, 12, 15, 18, 21, and 100 on Vesting Tentative Trace No. 52796. Because the density transfer would not exceed the mid-point density and represents a small percentage of the overall Project, the proposed density transfer within the Hillside Management designation would be considered consistent with the objectives of Section 22.56.215 and would not have significant impact with respect to the objectives of this Code section.



- PRELIMINARY WORKING DRAFT -

PCR

N

0 600 Feet

Open Space Exhibit

Aidlin Hills

Source: Alliance Land Planning & Engineering, 2015

FIGURE

4.9-3

This page intentionally blank.

Table 4.9-4

Project Site Slope Analysis

Land Use Designation	0-24.99 percent	25-49.99 percent	50 percent	Total
W (Floodway/ Floodplain)	4.1 acres	0.3 acres	0.1 acre	4.5 acres
U-2 (Urban 2)	9.6 acres	5.9 acres	8.6 acres	24.1 acres
HM (Hillside Management) (1/4 mile)	15.9 acres	41.9 acres	89.3 acres	147.1 acres
HM Hillside Management	2.8 acres	7.1 acres	44.9 acres	54.8 acres
Total Acres				230.5 acres

Source: Alliance Land Planning & Engineering, December 2014.

The Project would involve the removal of one Coast Live Oak, although an on-site heritage-status Coast Live Oak would not be affected. County Code Section 22.56.2050 *et seq*., which requires an Oak Tree Permit for the removal of any oak tree, recognizes oak trees as significant historical, aesthetic, and ecological resources and creates favorable conditions for the preservation and propagation of oak trees, particular oak trees of heritage status in the development process. Damage to or removal of oak trees is prohibited under this Code section. The Project would comply with the requirements of the Oak Tree Permit, as described under Section 1.A, Regulatory Framework, above. The implementation of the Oak Tree Permit process would reduce impacts to on-site oak trees and allow the Project to be consistent with the applicable oak tree regulations of the County Code. Impacts with respect to removal or protection of oak trees are discussed in greater detail in Section 4.3, *Biological Resources*, of this Draft EIR. As discussed therein, impacts to oak tree resources would be less than significant.

The Project would require approximately 1,300,000 cubic yards of cut material, with all cut material being used as fill material within the site. The Project grading plan would balance the grading quantities such that no import or export of soil would be required. Grading of the site would include hillside slopes to remediate existing geologic conditions and to create stable building pads and internal roadways. Manufactured slopes would have an average grade of 2 horizontal to 1 vertical. The grading limits would extend off-site to the north and east to permit slope rounding and adequate transitions to natural terrain, encompassing an additional seven to eight acres. The grading plan for the Project would fully comply with County grading standards. Under Section 22.08.070 G of the County Code, a "Grading Project means any excavation or fill, or combination thereof, that exceeds 100,000 cubic yards (cy) requires a grading permit under the provisions of the Building Code, set out under Title 26 of the County Code. On-site grading would also require a CUP under Title 22.56 of the County Code to ensure consistency with the County's grading regulations and protection of the environment.

Table 4.9-5

Density Calculation Table

Land Use Designation	Slope Range in percent	Gross Acres	Low Density (Threshold for CUP)	Low Yield No. of Units	Maximum Density	Maximum Yield No. of Units
W (Floodway/ Floodplain)	0-24.99	4.1	N/A	0.0	N/A	0.0
	25-49.99	0.3	N/A	0.0	N/A	0.0
	50 +	0.1	N/A	0.0	N/A	0.0
U-2 (Urban 2)	0-24.99	9.6	3.4 DU/AC	32.6	6.6 DU/AC	63.4
	25-49.99	5.9	3.4 DU/AC	20.1	6.6 DU/AC	38.9
	50 +	8.6	3.4 DU/AC	29.2	6.6 DU/AC	56.8
HM (Hillside Management) (1/4 mile)	0-24.99	15.9	0.2 DU/AC	3.2	1.0 DU/AC	15.9
	25-49.99	41.89	0.1 DU/AC	4.2	1.0 DU/AC	41.9
	50 +	89.3	0.05 DU/AC	4.5	0.05 DU/AC	4.5
HM Hillside Management	0-24.99	2.8	0.2 DU/AC	0.6	0.5 DU/AC	1.4
	25-49.99	7.1	0.1 DU/AC	0.7	0.5 DU/AC	3.6
	50 +	44.9	0.0 DU/AC	0.0	0.05 DU/AC	2.2
Total Project		**230.5**		**95.1**		**228.6**

Source: Alliance Land Planning & Engineering, December 2014.

With the implementation of the requirements of Title 26 and the proposed CUP, the Project would be consistent with applicable regulations intended for the protection of the environment. Impacts with respect to grading regulations would be less than significant. Grading is described in greater detail in Section 4.5, *Geology and Soils*, of this Draft EIR.

Mitigation Measures

No potentially significant land use impacts regarding Hillside Management criteria or environmental policies have been identified and no mitigation measures are required.

Table 4.9-6

Density Transfer Summary

Land Use Designation	Proposed Units
U-2	27[a]
HM	75
Total Proposed Units	102

Note: To develop 75 units under the HM designation, 6 units would be transferred from U-2 designation to the Hillside Management designation (75 less 69 = 6 units) .Density transfer of 6 units from U-2 to HM designation per the following: Maximum units permitted according to the slope analysis would be 69.

Source: PCSR Services Corporation, 2014

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds LU-1, LU-2, LU-3, and LU-4 in this EIR section

Impact Statement 4.9-5: No related projects are located within the immediate Project vicinity: an approximately nine-square-mile area centered on Pico Canyon Road and the I-5 freeway and encompassing a portion of the City of Santa Clarita. The Project in conjunction with related projects would not cumulatively affect land use patterns or other land use and zoning policies in the Project vicinity, as these projects are consistent with the existing land use patterns. Related Projects within the broader approximately 36-square-mile study area, extending from Castaic Junction to the north to Calgrove Boulevard to the south, indicates a trend toward urbanization of the I-5 corridor in Northern Los Angeles County. With the implementation of land use policies contained in applicable local and regional land use plans and enforcement of the regulations under Titles 22 and 26 of the County Code for all related projects in the study area, the Project combined with related projects would not result in cumulatively significant land use impacts.

Approximately 18 related projects are proposed for development in the Project study area. The Project Study area encompasses approximately 6-miles by 6-miles (36 square miles) between approximately Henry Mayo Parkway (Castaic Junction) to the north and Calgrove Boulevard to the south. Henry Mayo Parkway is approximately 4.5 miles to the north of Pico Canyon Road, and Calgrove Boulevard is approximately 1.4 miles to the south of Pico Canyon Road (see Figure 3.1, Related Projects Map, in Section 3, Basis for Cumulative Analysis in this Draft EIR). Approximately six related projects (Related Projects No. 2, 5, 8, 9, 10, and 11) are located in the vicinity of Henry Mayo Parkway, four of which (Related Projects No. 8, 9, 10, and 11) are to the north of Henry Mayo Parkway, approximately five miles from the Project Site. Related Projects No. 1, 6, 12 are located to the north of Magic Mountain Parkway, approximately 3 miles to the north of Pico Canyon Road, and Related Projects No. 3, 4, and 7 are located in the vicinity of Valencia Boulevard, approximately two miles to the north of Pico Canyon Road, none of which propose access from Pico Canyon Road. Related Projects No. 14, 15, 16, 17, and 18 are located to the east of I-5 and to the north of McBean Parkway, approximately one mile to the north of the Pico Canyon Road/I-5 interchange. Related Project No.

13 is located approximately one mile to the south of Pico Canyon Road in the vicinity of Calgrove Boulevard. No related projects are located within the vicinity of Pico Canyon Road to the west of I-5 or in the vicinity of Lyons Avenue to the east of I-5.

Total development represented by the related projects includes 21,866 single- and multi-family residential units (Related Projects No. 1 through 8 and Related Project No. 13). Commercial uses would comprise approximately 40 million square feet. Related projects also include a 200 room hotel (Related Project No. 17) and expansion of landfill operations at Chiquita Canyon Landfill (Related Project No. 11). This scale of development indicates a trend toward substantial regional growth in the I-5 corridor of the north County. As with the Project, Related Projects No. 1 through 18, which are not located within the Project vicinity, would be subject to the guidance of adopted local and regional land use plans, existing land use designations, existing zoning, and other regulations set forth in County Code Title 22.

As no related projects are located within the immediate Project vicinity (an approximately 9-square-mile area centered on the interchange of Pico Canyon Road and I-5) and are gaining access from Pico Canyon Road, the Project, in conjunction with related projects, would not affect land use patterns or development trends in the local area. Because related projects would be subject to existing land use and zoning regulations and would not be located within the Project vicinity, cumulative land use impacts would be less than significant.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Land use impacts would be less than significant regarding applicable policies of local and regional plans, applicable land use and zoning designations, and implementation of other special processes, including a CUP for density-controlled development, density transfer in a Hillside Management area, and grading, as well as the County's Oak Tree Permit process and other permits.

4.10 NOISE

This section analyzes the potential noise and vibration impacts that would result from the Project. The analysis describes the existing noise environment in the Project area, estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the Project, and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative noise impacts is also provided. Noise worksheets and technical data used in this analysis are included in Appendix I of this Draft EIR.

1. ENVIRONMENTAL SETTING

Noise and Vibration Basics

Noise

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perceptibility of sound is subjective and the physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels ("dB"). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate this human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The A-weighted sound level ("dBA") de-emphasizes low frequencies to which human hearing is less sensitive and focuses on mid- to high-range frequencies. The range of human hearing is approximately 3 to 140 dBA, with 110 dBA considered intolerable or painful to the human ear. Another commonly used scale is the C-weighted sound level ("dBC"), which includes low-frequency noise. In a non-controlled environment, a change in sound level of 3 dB is considered "just perceptible," a change in sound level of 5 dB is considered "clearly noticeable," and a change in 10 dB is perceived as a doubling of sound volume.[1] A comparison of types of commonly experienced environmental noise is provided in **Figure 4.10-1**, *Common Noise Levels*.

Although the A-weighted scale accounts for the range of people's response, and is therefore commonly used to quantify individual event or general community sound levels, the degree of annoyance or other response effects also depends on several other factors. These factors include:

- Ambient (background) sound level;
- Magnitude of sound event with respect to the background noise level;
- Duration of the sound event;
- Number of event occurrences and their repetitiveness; and
- Time of day that the event occurs.

[1] *Engineering Noise Control, Bies & Hansen, 1988.*

In an outdoor environment, sound levels diminish with distance. Such attenuation is called "distance loss" or "geometric spreading" and is influenced by the noise source configuration (i.e., point source or line source). For a point source, such as stationary equipment, the rate of sound attenuation is usually 6 dB per doubling of distance from the noise source at acoustically "hard" sites, such as an urban environment. For example, a sound level of 50 dBA at a distance of 25 feet from the noise source would attenuate to 44 dBA at a distance of 50 feet. For a line source, such as a roadway with a constant flow of traffic on a roadway, the rate of sound attenuation is 3 dB per doubling of distance.[2] In addition, structures (e.g., buildings and solid walls) and natural topography (e.g., hills) that obstruct the line-of-sight between a noise source and a receptor further reduce the noise level if the receptor is located within the "shadow" of the obstruction, such as behind a sound wall. This type of sound attenuation is known as "barrier insertion loss." If a receptor is located behind the wall but still has a view of the source (i.e., line-of-sight not fully blocked), some barrier insertion loss would still occur, but to a lesser extent. A receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall reflects noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line-of-sight between the source and receiver) up to 20 dBA with a more substantial barrier.[3]

Community noise levels usually change continuously during the day. The equivalent sound level ("L_{eq}") is normally used to describe community noise. The L_{eq} is the equivalent steady-state A-weighted sound level that would contain the same acoustical energy as the time-varying A-weighted sound level during the same time interval. For intermittent noise sources, the maximum noise level ("L_{max}") is normally used to represent the maximum noise level measured during the measurement. Maximum and minimum noise levels, as compared to the L_{eq}, are a function of the characteristics of the noise source. As an example, sources such as generators have maximum and minimum noise levels that are similar to L_{eq} since noise levels for steady-state noise sources do not substantially fluctuate. However, as another example, vehicular noise levels along local roadways result in substantially different minimum and maximum noise levels when compared to the L_{eq} since noise levels fluctuate during pass-by events. The Los Angeles County (County) Noise Ordinance uses the L_{eq} for the evaluation of noise violations.

To assess noise levels over a given 24-hour time period, the Community Noise Equivalent Level ("CNEL") descriptor is used in land use planning. CNEL is the time average of all A-weighted sound levels for a 24-hour period with a 10 dBA adjustment (upward) added to the sound levels which occur in the night (10:00 P.M. to 7:00 A.M.) and a 5 dBA adjustment (upward) added to the sound levels which occur in the evening (7:00 P.M. to 10:00 P.M.). These penalties attempt to account for increased human sensitivity to noise during the quieter nighttime periods, particularly where sleep is the most probable activity. CNEL has been adopted by the State of California to define the community noise environment for development of a community noise element of a General Plan and is also used by the County for land use planning in the County's Noise Element of the General Plan ("Noise Element").[4]

[2] *Caltrans, Technical Noise Supplement (TeNS), 2013.*

[3] *Ibid.*

[4] *State of California, General Plan Guidelines, 2002.*

□oi□e □e□el □d□□□	□o□ □on □ndoor □oi□e □e□el□	□o□ □on □□tdoor □oi□e □e□el□
110	Rock Band	
100	Inside Subway Train	Jet Flyover @ 1,000 feet Gas Lawn Mower @ 3 feet
90	Food Blender @ 3 feet	Diesel Truck @ 50 feet Noisy Urban Daytime
80	Garbage Disposal @ 3 feet Shouting @ 3 feet	
70	Vacuum Cleaner @ 10 feet	Gas Lawn Mower @ 100 feet Commercial Area
60	Normal Speech @ 3 feet Large Business Office	Heavy Traffic @ 300 feet
50	Dishwasher next room	Quiet Urban Daytime
40	Small Theater/Conference Room (background)	Quiet Urban Nightime Quiet Suburban Nightime
30	Library Bedroom at Night	
20	Concert Hall (background) Broadcast & Recording Studio	Quiet Rural Nightime
10		
0	Threshold of Hearing	

PCR

Common Noise Levels

Aidlin Hills

Source: Caltrans Noise Manual, California Department of Transportation, 1980.

FIGURE **4.10-1**

This page is intentionally blank.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration.[5] Vibration amplitudes are usually described in terms of peak levels, as in peak particle velocity ("PPV"). The peak level represents the maximum instantaneous peak of the vibration signal. In addition, vibrations can be measured in the vertical, horizontal longitudinal, or horizontal transverse directions. Ground vibrations are most often greatest in the vertical direction.[6] Therefore, the analysis of ground-borne vibration associated with the Project is addressed in the vertical direction. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 50 feet or less) from the source.

Regulatory Framework

Many government agencies have established noise standards and guidelines to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise and ground-borne vibration. Regulations in the Los Angeles County Code (LACC) and the State of California, Department of Health Service, Environmental Health Division, Guidelines for Noise and Land Use Compatibility, would be applicable to the Project.

Los Angeles County Noise Ordinance

The Los Angeles County Noise Ordinance (County Code Title 12, Chapter 12.08 Noise Control) identifies exterior noise standards for noise point sources, specific noise restrictions, exemptions, and variances for exterior point and stationary noise sources. Several of these are applicable to the Project and are discussed below.

The County Noise Ordinance (Section 12.08.390) states that exterior noise levels caused by noise point sources shall not exceed the levels identified in **Table 4.10-1**, *Los Angeles County Exterior Noise Standards for Stationary and Point Noise Sources*, or the ambient noise level,15 whichever is greater, when the ambient noise level is determined without the noise source operating.

The Noise Ordinance (Section 12.08.400) also states that interior noise levels resulting from outside point or stationary sources within multi-family residential units shall not exceed 45 dB(A) L_{eq} between 7 AM and 10 PM, and 40 dB(A) L_{eq} between 10 PM and 7AM. These standards would apply to the future residents owners within the Project site.

The County Noise Ordinance identifies specific restrictions regarding construction noise (Section 12.08.440). The operation of equipment used in construction, drilling, repair, alteration, or demolition work is prohibited between weekday hours of 7:00 PM to 7:00 AM and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial real-property line. The Noise Ordinance further states that the contractor shall conduct construction activities in such a manner that the

[5] *Federal Transit Authority, Transit Noise and Vibration Impact Assessment, Final Report, page 7-3, May 2006.*

[6] *California Department of Transportation (Caltrans), Transportation Related Earthborne Vibrations, page 4, February 2002.*

Table 4.10-1

Los Angeles County Exterior Noise Standards for Stationary and Point Noise Sources

Noise Zone	Designated Noise Zone Land Use (Receptor Property)	Time Interval	Exterior Noise Level dB(A)[a]
I	Noise-sensitive area[b]	Anytime	45
II	Residential Properties	10 P.M. to 7 A.M. (nighttime)	45
		7 A.M. to 10 P.M. (daytime)	50
III	Commercial Properties	10 P.M. to 7 A.M. (nighttime)	55
		7 A.M. to 10 P.M. (daytime)	60
IV	Industrial Properties	Anytime	70

[a] *Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour.*
Standard No. 1 shall be the applicable noise level; or, if the ambient L_{50} exceeds the forgoing level, then the ambient L_{50} becomes the exterior noise level for Standard No. 1.
Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour.
Standard No. 2 shall be the applicable noise level from Standard 1 plus 5 dB(A); or, if the ambient L25 exceeds the forgoing level, then the ambient L_{25} becomes the exterior noise level for Standard No. 2.
Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour.
Standard No. 3 shall be the applicable noise level from Standard 1 plus 10 dB(A); or, if the ambient $L_{8.3}$ exceeds the forgoing level, then the ambient $L_{8.3}$ becomes the exterior noise level for Standard No. 3.
Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour.
Standard No. 4 shall be the applicable noise level from Standard 1 plus 15 dB(A); or, if the ambient $L_{1.7}$ exceeds the forgoing level, then the ambient $L_{1.7}$ becomes the exterior noise level for Standard No. 4.
Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from Standard 1 plus 20 dB(A); or, if the ambient L_0 exceeds the forgoing level, then the ambient L_0 becomes the exterior noise level for Standard No. 4.

[b] *Not defined in the County Noise Ordinance. To be designated by the County Health Officer.*

Source: Los Angeles County Ordinance, Nos. 11773 and 11778, Section 12.08.390.

maximum noise levels at the affected buildings will not exceed those listed in **Table 4.10-2**, *Los Angeles County Construction Equipment Noise Restrictions*. All mobile and stationary internal-combustion-powered equipment and machinery is also required to be equipped with suitable exhaust and air-intake silencers in proper working order.

The County Noise Ordinance states that noise levels caused by any air-conditioning or refrigeration equipment shall not exceed the levels identified in **Table 4.10-3**, *Los Angeles County Residential Air-Conditioning or Refrigeration Equipment Standards.*

Table 4.10-2

Los Angeles County Construction Equipment Noise Restrictions

Time Interval		Single-family Residential	Multi-family Residential	Semi-residential/ Commercial
Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment	Daily, except Sundays and legal holidays, 7 A.M. to 8 P.M.	75 dBA	80 dBA	85 dBA
	Daily, 8 P.M. to 7 A.M. and all day Sundays and legal holidays	60 dBA	64 dBA	70 dBA
Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment	Daily, except Sundays and legal holidays, 7 A.M. to 8 P.M.	60 dBA	65 dBA	70 dBA
	Daily, 8 P.M. to 7 A.M. and all day Sundays and legal holidays	50 dBA	55 dBA	60 dBA

[a] *At Business Structures. Mobile equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment: Daily, including Sunday and legal holidays, all hours: maximum of 85dBA.*

[b] *All mobile or stationary internal-combustion-engine powered equipment or machinery shall be equipped with suitable exhaust and air-intake silencers in proper working order.*

[c] *In case of a conflict between this chapter and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities shall control.*

Source: Los Angeles County Ordinance, Nos. 11773 and 11778, Section 12.08.440.

Policies and standards related to ground-borne vibration are provided in Section 12.80.560 of the LACMC, where operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public space or public right-of-way, is prohibited. The Ordinance defines the vibration perception threshold of a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz. The motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz would be 0.035 inches per second PPV. [7]

The County exempts all vehicles of transportation (with a few exceptions) that operate in a legal manner within the public right-of-way, railway, or air space, or on private property, from the standards of the Noise Ordinance. The County has no adopted ordinance regulating individual motor vehicle noise levels. These are regulated by the state.

[7] *CalTrans has produced a guidance manual for evaluating potential vibration impacts ("Transportation- and Construction-Induced Vibration Guidance Manual" dated June 2004). The manual provides thresholds for potential impacts on human comfort and damage to buildings, as well as guidance for reducing potential vibration impacts and addressing vibration issues. The manual gathers data from multiple sources including the Federal Transit Administration (FTA). Tables 4, 5 and 6 provide criteria for identifying potential annoyance from vibration activity, as measured in inches per second peak particle velocity (PPV). The values range in value. For example, 0.035 inches per second (PPV) is identified as a level that is "distinctly" or "barely" perceptible, 0.08/0.1 as identified "readily" or "strongly" perceptible. Levels above this range are levels that begin to annoy human beings.*

Table 4.10-3

Los Angeles County Residential Air-Conditioning or Refrigeration Equipment Standards

Measurement Location	Units Installed Before 1-1-80 dBA	Units Installed On or After 1-1-80 dBA
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall.	60	55
Center of neighboring patio, 5 feet above grade level, no closer than 3 feet from any wall.	55	50
Outside the neighboring living area window nearest the equipment location, not more than 3 feet from the window opening, but at least 3 feet from any other surface.	55	50

Source: Los Angeles County Ordinance, Nos. 11773 and 11778, Section 12.08.530.

California Department of Health Services

The State of California, Department of Health Services, Environmental Health Division, has published recommended guidelines for noise and land use compatibility, referred to as the Guidelines. As shown in **Table 4.10-4**, *Land Use Compatibility for Community Noise Environments*, the Guidelines indicate that residential land uses and other noise sensitive receptors generally should locate in areas where outdoor ambient noise levels do not exceed 65 to 70 dB(A) (CNEL or Day-Night Average Sound Level [L_{dn}]). The Department of Health Services does not mandate application of this compatibility matrix to development projects; however, each jurisdiction is required to consider the Guidelines when developing its general plan noise element and when determining acceptable noise levels within its community. According to the Guidelines, an exterior noise level of 60 dB(A) CNEL is considered to be a "normally acceptable" noise level for single family, duplex, and mobile homes involving normal, conventional construction, without any special noise insulation requirements. Exterior noise levels up to 65 dB(A) CNEL are typically considered "normally acceptable" for multi-family units and transient lodging without any special noise insulation requirements. Between these values and 70 dB(A) CNEL, exterior noise levels are typically considered "conditionally acceptable," and residential construction should only occur after a detailed analysis of the noise reduction requirements is made and needed noise attenuation features are included in the project design. Exterior noise attenuation features include, but are not limited to, setbacks to place structures outside the conditionally acceptable noise contour, orienting structures so no windows open to the noise source, and/or installing noise barriers such as berms and/or solid walls. Within a 65 dB(A) exterior noise environment, interior noise levels will typically be reduced to acceptable levels (to at least 45 dB[A] CNEL) through conventional construction, but with closed windows and fresh air supply systems or air conditioning in order to maintain a comfortable living environment.

Under the Guidelines, an exterior noise level of 70 dB(A) CNEL is typically the dividing line between an acceptable and unacceptable exterior noise environment for all noise sensitive uses, including schools, libraries, churches, hospitals, day care centers, and nursing homes of conventional construction. Noise levels below 75 dB(A) CNEL are typically acceptable for office and commercial buildings, while levels up to 75

Table 4.10-4

Land Use Compatibility for Community Noise Environments

Land Use Category	*Noise Exposure (L_{dn} or CNEL, dBA)*						
	55	*60*	*65*	*70*	*75*	*80*	
Residential – Low Density Single-Family, Duplex, Mobile Homes							
Residential – Multiple Family							
Transient Lodging – Motels and Hotels							
School Classrooms, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreations, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

	NORMALLY ACCEPTABLE: With no special noise reduction requirements assuming standard construction.
	CONDITIONALLY ACCEPTABLE: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
	NORMALLY UNACCEPTABLE: New construction discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	CLEARLY UNACCEPTABLE: New construction or development should generally not be undertaken.

Source: California Department of Health Services, "Guidelines for the Preparation and Content of the Noise Element of the General Plan," 1976

dB(A) CNEL are typically acceptable for industrial uses (for the purposes of this analysis, however, noise impacts will only be evaluated for the noise sensitive uses that are proposed on the site). In unacceptable interior noise environments, additional noise insulation features, such as extra batting or resilient channels in exterior walls, double-paned windows, air conditioners to enable occupants to keep their windows closed without compromising their comfort, solid wood doors, noise baffles on exterior vents, etc., are typically needed to provide acceptable interior noise levels. The best type of noise reduction design is based on detailed acoustical analyses that identify all practical noise insulation materials with substantiation of their effectiveness to reduce noise.

Existing Conditions

Noise-Sensitive Receptor Locations

Some land uses are considered more sensitive to noise than others due to noise exposure and types of activities conducted near the noise-sensitive receptor location. The *Noise Element* states that residences, hospitals, schools, childcare facilities, and places of assembly are generally more sensitive to noise than commercial and industrial land uses. Existing noise sensitive uses in the vicinity of the Project site are shown on **Figure 4.10-2**, *Noise Measurement Locations*, and summarized below:

- Residential community east of the Project site. Single-family residences adjacent to the Project site.
- Residential community north of the Project site. Single-family residences approximately 800 feet north of the Project site at its closest point.

All other noise-sensitive uses regulated by the County are located at greater distances. Thus, impacts are quantified only for the nearest sensitive uses.

Ambient Noise Levels

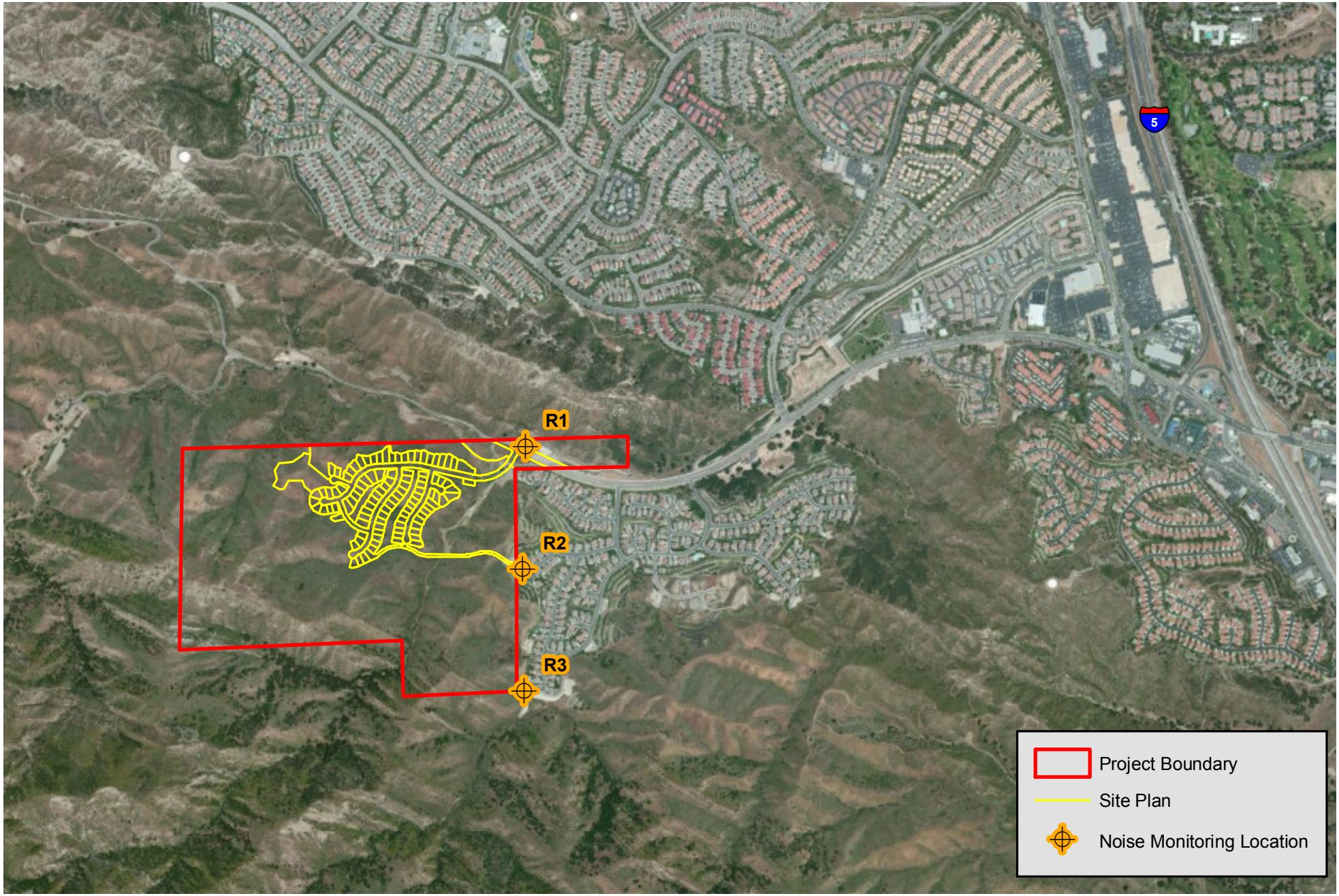
The predominant noise sources surrounding the Project site include roadway noise from Pico Canyon Road to the north. Secondary noise sources include general residential-related activities, such as gardening activities and refuse service activities.

Ambient noise measurements were conducted at two locations representing the residential sensitive receptors, as indicated on Figure 4.10-2. The receptors are described below, and as shown in Figure 4.10-2, both long-term and short-term measurements were conducted. Long-term measurements were conducted at locations R1 for 2 days and short-term (15-minute) measurements were recorded at locations R2. Ambient sound measurements were conducted from Tuesday, July 15, through Thursday, July 17, 2014, to characterize the existing noise environment in the Project vicinity.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter ("SLM"). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of 5 feet above the local grade, at the following locations as shown in Figure 4.10-2:

- Measurement Location R1: This location represents the existing noise environment of the nearest noise sensitive receptor locations east of the Project site, along Pico Canyon. The noise measuring device (sound level meter) was placed on the northeastern boundary of the Project site along Pico Canyon.
- Measurement Location R2: This location represents the existing noise environment of the single-family residential neighborhood southeast of the Project site along Verandah Court. The sound level meter was placed at cul-de-sac .

A summary of noise measurement data is provided in **Table 4.10-5,** *Summary of Ambient Noise Measurements*. As shown in Table 4.10-5, the existing ambient daytime and nighttime noise levels at all of the noise-sensitive residential receptors measured already exceed the County's presumed ambient noise



PCR

N

0 1,500 3,000 Feet

Noise Measurement Locations

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2014.

FIGURE

4-10-2

This page is intentionally blank.

Table 4.10-5

Summary of Ambient Noise Measurements

Location, Duration, Existing Land Uses and, Date of Measurements	Measured Ambient Noise Levels,[a] (dBA)				
	Daytime (7 A.M. to 10 P.M.) Hourly L_{eq}	Daytime Average Hourly L_{eq}	Nighttime (10 P.M. to 7 A.M.) Hourly L_{eq}	Nighttime Average Hourly Leq	24-Hour Average, CNEL
R1					
7/15/14 (12 P.M. to 11:59 P.M.)/ Tuesday	51 – 59	55	45 – 47	52	N/A
7/16/14 (full 24 hours)/ Wednesday	46 – 57		44 – 50		56
7/17/14 (12 A.M. to 9:59 A.M.)/ Thursday	55 – 59		35 - 62		N/A
R2					
7/15/14 Tuesday (11:00 A.M. to 12:00 P.M.)	45	N/A	N/A	N/A	N/A

[a] *Detailed measured noise data, including hourly L_{eq} levels, are included in Appendix I.*

Source: PCR Services Corporation, 2014.

levels indicated in Table 4.10-1. In addition, the measured CNEL was recorded 56 dBA, CNEL at the northern Project site boundary. The ambient noise levels in the immediate Project vicinity are representative of noise levels in a suburban area. The average ambient noise levels were applied to the noise impact analysis.

To further characterize the Project area's ambient noise environment, the CNEL noise levels attributed to existing traffic on local roadways were calculated using a noise prediction model which was developed based on calculation methodologies provided in the California Department of Transportation ("Caltrans") Technical Noise Supplement ("TeNS") document and traffic data provided by the Project traffic consultant.[8] The roadway noise calculation procedures provided in the Caltrans TeNS are consistent with Federal Highway Administration RD-77-108 roadway noise prediction methodologies. This methodology, considered an industry standard, allows for the definition of roadway configurations, barrier information (if any), and receiver locations.

A traffic model calibration test was performed to establish the noise prediction model's accuracy. The road segments included in the calibration test were along Verandah Court. At the noted location, a 15-minute noise recording was made concurrent with logging of actual traffic volumes and auto fleet mix (i.e., standard automobile, medium duty truck, or heavy duty truck). The traffic counts were entered into the noise model along with the observed speed, lane configuration, and distance to the roadway to calculate the traffic noise levels. The results of the traffic noise model calibration are provided in **Table 4.10-6**, *Traffic Noise Model Calibration Results*. As indicated, the noise model results are within 1 dBA of the measured noise levels,

[8] *The roadway noise calculation procedures provided in TeNS are consistent with Federal Highway Administration RD-77-108 "industry standard" roadway noise prediction methodologies.*

Table 4.10-6

Traffic Noise Model Calibration Results

Road Segment/ Noise Measurements Locations	Traffic Counts during noise readings, 15 minutes			Measured Traffic Noise Levels, L_{eq} (dBA)	Project Traffic Noise Model Predicted Noise Levels, L_{eq} (dBA)	Difference between Predicted and Measured Levels, dBA
	Autos	Medium Trucks [a]	Heavy Trucks [b]			
Verandah Court	5	0	0	45.2	45.5	0.3

[a] *Medium Truck – 2 axle trucks based on field observations.*

[b] *Heavy Truck – 3 or more axle trucks and buses based on field observations.*

Source: PCR Services Corporation, 2014.

which is within the industry standard tolerance of the noise prediction model. Therefore, the Project specific traffic noise prediction model is considered accurate and reflective of the Project's physical setting.

The traffic noise prediction model calculates the 24-hour CNEL noise levels based on specific information including: ADT Volume; percentages of day, evening and nighttime traffic volumes relative to ADT; and vehicle speed and distance between the noise receptor and the roadway.

As indicated in **Table 4.10-7**, *Predicted Existing Vehicular Traffic Noise Levels*, the calculated CNEL (at a distance of 25 feet from the roadway right-of-way) from actual existing traffic volumes on the analyzed roadway segments ranged from 50.0 dBA to 71.2 dBA in the vicinity of the Project site.

Vibration-Sensitive Receptor Locations

Typically, ground-borne vibration generated by man-made activities (i.e., rail and roadway traffic, operation of mechanical equipment and typical construction equipment) diminishes rapidly as the distance from the source of the vibration become greater. The Federal Transit Administration ("FTA") uses a screening distance of 100 feet for highly vibration-sensitive buildings (e.g., hospitals with vibration sensitive equipment) and 50 feet for residential uses. When vibration-sensitive uses are located within those distances from a Project site, vibration impact analysis is required. With respect to structures, vibration-sensitive receptors generally include historic buildings, buildings in poor structural condition, and uses that require precision instruments (e.g., hospital operating rooms or scientific research laboratories).

There are no residential uses located in the Project area (less than 50 feet distant) that have the potential to experience perceptible vibration due to short-term construction and long-term Project operations. The nearest single-family residential receptor is a single-family residential community, Southern Oaks located within 50 feet east of the Project site.

Table 4.10-7

Predicted Existing Vehicular Traffic Noise Levels

Roadway Segment	Adjacent Land Use	Existing Noise Exposure Compatibility [b] Category	Existing CNEL (dBA) at Referenced Distances from Roadway Right-of-Way [a] 25 Feet
Pico Canyon Road			
Between Lyons and Old Road	Commercial	Conditionally Acceptable	70.5
Between Old Road and Stevenson Ranch	Residential/ Commercial	Conditionally Acceptable	67.6
Between Stevenson Ranch and Southern Oaks	Residential/ Park	Conditionally Acceptable	63.3
Between Southern Oaks and Whispering Oaks	Residential	Normally Acceptable	59.2
Between Whispering Oaks and A Street	Residential	Normally Acceptable	50.0
Old Road			
Between Stevenson Ranch and Pico Canyon	Residential/ Commercial	Conditionally Acceptable	69.5
Lyons			
East of I-5 NB Ramp	Residential/ Commercial	Normally unacceptable	71.2
Stevenson Ranch			
Between Old Road and Pico Canyon	Residential/ Commercial	Conditionally Acceptable	68.7
Southern Oaks			
South of Pico Canyon	Residential	Normally Acceptable	59.1
Whispering Oaks			
South of Pico Canyon	Residential	Normally Acceptable	57.2

[a] *Calculated based on existing traffic volumes.*
[b] *Based on noise levels at 25 feet distance from the roadway and residential uses if residential uses are shown along roadways.*

Source: PCR Services Corporation, 2014.

2. ENVIRONMENTAL IMPACTS

Threshold of Significance

Appendix G of the *State CEQA Guidelines* provides a set of screening questions that address impacts with regard to Noise Impacts. These questions are as follows:

Would the Project result in:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from amplified sound systems?
- For a project located within an airport land use plan, or where such 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?
- 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?

Construction

The following thresholds of significance were developed for this noise impact analysis based on the *State CEQA Guidelines* criteria set forth above and the plans and policies identified previously in this EIR section.

The Project would have a significant impact related to noise if:

Threshold NOISE-1: Construction related on-site equipment causes noise levels to exceed 60 dBA at single-family residential uses between the hours of 7:00 A.M. and 7:00 P.M. Monday through Saturday (construction prohibited to occur before 7:00 A.M. or after 7:00 P.M. Monday through Saturday, or anytime on Sundays and legal holidays) (refer to Impact Statement 4.10-1);

Threshold NOISE-2: Construction related mobile equipment causes noise levels to exceed 75 dBA at single-family residential uses between the hours of 7:00 A.M. and 7:00 P.M. Monday through Saturday (construction prohibited to occur before 7:00 A.M. or after 7:00 P.M. Monday through Saturday, or anytime on Sundays and legal holidays) (refer to Impact Statement 4.10-2).

Operation

As previously discussed, with respect to the community noise assessment, changes in noise levels of less than 3 dBA, in an urban setting, are generally not discernable to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase. Therefore, the significance threshold for off-site transportation noise source is based on human perceptibility to changes in noise levels (increases) and the land use noise compatibility guidelines in Table 4.10-4.

The Project would have a significant impact related to noise if:

Threshold NOISE-3: Project related traffic noise would cause ambient noise levels to increase by 5 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally acceptable" or "conditionally acceptable" (see Table 4.10-4 for description of these categories); or cause ambient noise levels to increase by 3 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally unacceptable" or "clearly unacceptable" (refer to Impact Statement 4.10-3);

Threshold NOISE-4: Project-related operational (i.e., on-site stationary) noise sources such as outdoor building mechanical/electrical equipment exceed the County Noise Ordinance Standards in Table 4.10-3 (refer to Impact Statement 4.10-4);

Threshold NOISE-5: Project's residential uses are exposed to an exterior noise level of greater than 60 dBA CNEL for outdoor living areas (excluding balconies) or an interior noise level of greater than 45 dBA CNEL (refer to Impact Statement 4.10-5);

Threshold NOISE-6: 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, which would expose people residing or working in the Project area to excessive noise levels (refer to Impact Statement 4.10-6); or

Threshold NOISE-7: Located within the vicinity of a private airstrip, which would expose people residing or working in the Project area to excessive noise levels (refer to Impact Statement 4.10-7).

Ground-Borne Vibration

Impacts relative to ground-borne vibration would be considered significant if the following future event were to occur:

Threshold NOISE-8: Project construction and operation activities cause ground-borne vibration levels to exceed 0.035-inch-per-second PPV at nearby residential uses (refer to Impact Statement 4.10-8).

Methodology

On-Site Construction Noise

On-site construction noise impacts were evaluated by determining the noise levels generated by the different types of construction activity anticipated, calculating the construction-related noise level at nearby sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise) at those receptors. More, specifically, the following steps were undertaken to assess construction-period noise impacts.

1. Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table 4.10-5);

2. Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration roadway construction noise model;

3. Distances between construction site locations (noise sources) and surrounding sensitive receptors were measured using Project architectural drawings and site plans and Google Earth;

4. The construction noise level was then calculated, in terms of hourly L_{eq}, for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance; and

5. Construction noise levels were then compared to the construction noise significance thresholds identified below.

Off-Site Roadway Noise (Construction and Operation)

Roadway noise impacts have been evaluated using the Caltrans TeNS methodology based on the roadway traffic volume data provided in the *Traffic Study* prepared for the Project and included in Appendix K of this Draft EIR. This methodology allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels that would occur under the "without project" condition.

Stationary Point-Source Noise (Operation)

Stationary point-source noise impacts were evaluated by identifying the noise levels generated by outdoor stationary noise sources, such as rooftop mechanical equipment and loading dock activity, calculating the hourly L_{eq} noise level from each noise source at sensitive receptor property lines, and comparing such noise levels to existing ambient noise levels. More specifically, the following steps were undertaken to calculate outdoor stationary point-source noise impacts:

1. Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table 4.10-5);

2. Distances between stationary noise sources and surrounding sensitive receptor locations were measured using Project architectural drawings, Google Earth, and site plans;

3. Stationary-source noise levels were then calculated for each sensitive receptor location based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance;

4. Noise level increases were compared to the stationary source noise significance thresholds identified below; and

5. For outdoor mechanical equipment, the maximum allowable noise emissions from any and all outdoor mechanical equipment were specified such that noise levels would not exceed the significance threshold identified below.

Ground-Borne Vibration (Construction and Operation)

Ground-borne vibration impacts were evaluated by identifying potential vibration sources, measuring the distance between vibration sources and surrounding structure locations, and making a significance determination based on the significance thresholds described below.

Project Design Features

Project design features have the potential to influence Project-generated noise and vibration and were taken into account in analysis of potential impacts. The anticipated daily construction schedule, as required by County regulations, would be 7:00 AM to 6:00 PM, Monday through Saturday, excluding federal holidays. The Project contractor(s) would equip all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers, consistent with manufacturers' standards.[9] When grading activities would occur within 50 feet from residential uses, small size construction equipment such as small graders and small excavators shall be utilized to reduce noise and vibration impacts on residential uses. Finally, engine idling from construction equipment such as bulldozers and haul trucks would be limited, to the extent feasible. With respect to Project operation, all building outdoor mounted mechanical and electrical equipment would be designed to meet the requirements of Municipal Code, Section 112.08.530.

Analysis of Project Impacts

Construction

On-site Construction Noise

Threshold NOISE-1: The Project would have a significant impact related to noise if construction related on-site equipment noise levels exceed 60 dBA at single-family residential uses between the hours of 7:00 A.M. and 7:00 P.M. Monday through Saturday (construction prohibited to occur on Sundays and legal holidays).

Impact Statement 4.10-1: Noise generated by on-site construction would exceed the significance threshold at nearby residential uses during the grading phase only. Therefore, impacts would be significant without implementation of mitigation measures.

[9] *Addition of an improved muffler can lower noise by 6 to 15 dBA, Construction Noise, Worker's Compensation Board of BC, Engineering Section Report, February, 2000.*

Noise impacts from construction activities are generally a function of the noise generated by construction equipment, equipment locations, the timing and duration of the noise-generating activities, and the sensitivity of nearby land uses. Project construction is planned in four phases: (1) grading/excavation, (2) foundation, (3) building construction, and (4) architectural coating. Each phase involves the use of different kinds of construction equipment and therefore has its own distinct noise characteristics. Grading and excavation typically involve the use of excavators, grader, tractor/loader/backhoe, scraper, dozer, haul truck, and water truck. Foundation would involve the use of concrete mixer truck, forklift, generator set, pump, and tractor/loader/backhoe. Building construction would involve the use of crane, forklift, generator set, tractor/loader/backhoe, and welder. Architectural coating would involve the use of air compressors. The Project would be constructed using typical construction techniques, and no blasting or impact pile driving would be used.

As discussed in Chapter 2.0, Project Description, of this Draft EIR, the Project construction is conceptually anticipated to commence in November 2015 and conclude in July 2019 with grading operations anticipated to commence in November 2015 and conclude in June 2016. Infrastructure installation would commence in May 2016, starting with storm drains (about four months) and followed by sewer (about six months), water (about six months), street hardscape (about two months), and other utilities (about four months).

Project construction would require the use of mobile heavy equipment with high noise level characteristics. Individual pieces of construction equipment that would be used for Project construction would produce maximum noise levels of 74 dBA to 85 dBA at a reference distance of 50 feet from the noise source, as shown in **Table 4.10-8**, *Construction Equipment Noise Levels*. These maximum noise levels would occur when equipment is operating under full power. However, equipment used on construction sites often operates under less than full power, or partial power, and construction activities are characterized by variations in the power expended by equipment, with resulting variation in noise levels with time. Variation in the power is expressed in terms of the "usage factor," as reflected in the second column of Table 4.10-8. The usage factor is the percentage of time during the workday that the equipment is operating at full power.[10] To more accurately characterize construction-period noise levels, the average (Hourly L_{eq}) noise level associated with each construction phase is calculated based on the quantity, type, and usage factors for each piece of equipment that would be used during each construction phase and is typically attributable to multiple pieces of equipment operating simultaneously.

Construction noise levels were estimated based on the industry standard sound attenuation rate of 6 dB per doubling of distance for point sources (e.g., construction equipment). For purposes of analysis, all construction equipment was assumed to operate simultaneously at the construction area nearest to potentially affected residential receptors. These assumptions represent a conservative noise scenario, since construction activities would more typically be spread throughout the construction site and would be farther away from noise sensitive receptors. In addition, noise from different construction stages which have the potential to occur simultaneously were added together to provide a composite construction noise level. A summary of the construction noise impacts at the nearby sensitive receptors is provided in **Table 4.10-9,** *Estimate of Construction Noise Levels (L_{eq}) at Off-Site Sensitive Receiver Locations*. Detailed noise calculations for construction activities are provided in Appendix I of this Draft EIR. As shown in Table 4.10-9, construction noise levels would exceed the significance threshold at the nearest residential sensitive

[10] *Federal Highway Administration, Roadway Construction Noise Model User's Guide, 2006.*

Table 4.10-8

Construction Equipment Noise Levels

Equipment	Estimated Usage Factor[a], %	Typical Noise Level at 50 feet from Equipment, dBA (Lmax)
Air Compressor	40	78
Concrete Mixer Truck	40	79
Crane	40	81
Dozer	40	82
Haul Truck	10	80
Excavator	40	81
Forklift	10	75
Generator Set	50	81
Grader	40	85
Pump	50	81
Scraper	40	84
Tractor/Loader/Backhoe	25	80
Water Trucks	10	80
Welder	40	74

[a] *Usage factor is the fraction of time that the equipment is in use at full power over the specific time period.*

Source: Federal Highway Administration Roadway Construction Noise Model User's Guide, 2006.

receptors (Monitoring Location R1) during grading/excavation, foundation, and building construction phases and at the receptor location, R2 during grading and excavation phase. As such, construction noise impacts would be significant without implementation of mitigation measures.

Mitigation Measures

Mitigation Measure 4.10-1 Temporary construction noise barriers shall be implemented as follows:

- The Project shall ensure the provision of a minimum of 15 dBA noise barrier between the Project construction and the existing single-family residential uses (R1) to the northeast of the Project site during grading/excavation phases when heavy construction equipment operate within 1000 feet from the nearest noise sensitive receptor locations. The temporary barrier shall be a minimum height of 20 feet and block the line-of-site between construction equipment and noise-sensitive receptors during grading/excavation phases.
- The Project shall ensure the provision of a minimum of 6 dBA noise barrier between the Project construction and the existing single-family residential uses (R2) along Verandah Court during grading/excavation phases.

Mitigation Measure 4.10-2 Construction activities shall be scheduled so as to avoid operating more than two pieces of heavy equipment simultaneously within 100 feet from residential uses, which causes high noise levels during grading/excavation phases.

Table 4.10-9

Estimate of Construction Noise Levels (L_{eq}) at Off-Site Sensitive Receiver Locations

Noise Sensitive Receptor	Construction Phases	Nearest Distance between Receptor and Construction Site, feet	Estimated Construction Noise Levels at the Noise Sensitive Receptor by Construction Phase,[a] Hourly L_{eq} (dBA)	Project's Significance Threshold[c] (dBA)	Exceeds Significance threshold?
R1	Grading/Excavation (roads)	70	75	60	Yes
	Grading/Excavation (homes)	550	65		Yes
	Utilities	550	56		No
	Building Construction	550	53		No
	Architectural Coating	550	54		No
R2	Grading/Excavation (road)	140	67[b]	60	Yes
	Grading/Excavation (homes)	1000	50[c]		No
	Utilities	1000	39[c]		No
	Building Construction	1000	36[c]		No
	Architectural Coating	1000	37[c]		No

[a] *Estimated construction noise levels represent the worst-case condition when noise generators are located closest to the receptors and are expected to last the entire construction duration.*

[b] *Partially shielded from the construction site by topography.*

[c] *Fully shielded from the construction site by topography .*

Source: PCR Services Corporation, 2014

Off-Site Construction Noise

Threshold NOISE-2: The Project would have a significant impact related to noise if construction related mobile equipment causes noise levels to exceed 75 dBA at single-family residential uses between the hours of 7:00 A.M. and 7:00 P.M. Monday through Saturday (construction prohibited to occur on Sunday and legal holidays).

Impact Statement 4.10-2: Off-site construction traffic would not exceed the significance threshold of 75 dBA. Therefore, impacts would be less than significant.

There would be truck trips for material delivery and removal throughout the construction period. The trucks will be instructed to use routes which comply with the approved truck routes designated by the City and County. Outbound traffic would travel eastbound on Pico Canyon Road to the I-5 freeway and inbound traffic would travel westbound on Pico Canyon Road from the I-5 freeway. It is estimated that there would be a maximum of approximately 3 truck trips and up to 100 construction worker trips per day. The Project's truck and construction worker trips would generate noise levels of approximately 46 dBA, L_{eq} at a 25-foot distance along Pico Canyon Road. The construction related traffic noise levels would not exceed the significance threshold of 75 dBA. Detailed noise calculations for off-site construction noise are provided in Appendix I of this Draft EIR. Therefore, impacts would be less than significant.

Operation

Operational Noise

Threshold NOISE-3: The Project would have a significant impact related to noise if the Project related traffic noise would cause ambient noise levels to increase by 5 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally acceptable" or "conditionally acceptable" (see Table 4.10-4 for description of these categories); or cause ambient noise levels to increase by 3 dBA, CNEL or more and the resulting noise falls on a noise-sensitive land use within an area categorized as either "normally unacceptable" or "clearly unacceptable."

Impact Statement 4.10-3: Project related traffic would result in noise levels that exceed the significance threshold for existing residential uses along Pico Canyon Road, between Whispering Oaks and A Street. However, the closest residential uses along this stretch of Pico Canyon Road, between Whispering Oaks and A Street, are located approximately 50 feet south of Pico Canyon Road and approximately 20 feet higher than Pico Canyon Road. As a result of attenuation from setback and height, Project-related traffic noise impacts would be less than significant.

Future roadway noise levels were calculated along various arterial segments adjacent to the Project. Roadway noise attributable to Project development was calculated using the traffic noise model previously described and compared to baseline noise levels that would occur under the "No Project" condition.

For existing conditions, as shown in **Table 4.10-10**, *Off-Site Traffic Noise Impacts*, the maximum increase in Project-related traffic noise levels over existing traffic noise levels would be 7.9 dBA CNEL, which would occur approximately 25 feet from the edges of Pico Canyon Road, between Whispering Oaks and A Street. For future Project buildout, the maximum Project-related noise increase of 7.0 dBA CNEL over the future projected noise levels without the Project would also occur approximately 25 feet from the edges of Pico Canyon Road, between Whispering Oaks and A Street. However, the nearest residential uses along this stretch of Pico Canyon Road, between Whispering Oaks and A Street, are located approximately 50 feet south of Pico Canyon Road and approximately more than 20 feet higher than Pico Canyon Road. Due to attenuation from setback and height, noise levels from Project-related increases in traffic would be approximately 3 dBA at the property boundary. This increase is less than the 5 dBA CNEL threshold, and impacts from operational noise would be less than significant.

Threshold NOISE-4: The Project would have a significant impact related to noise if the Project-related operational (i.e., on-site stationary) noise sources such as outdoor building mechanical/electrical equipment exceed the County Noise Ordinance Standards in Table 4.10-3.

Impact Statement 4.10-4: Project implementation would increase noise levels at adjacent noise-sensitive receptors in the Project vicinity. However, Project-related operational noise levels would not exceed established thresholds and therefore impacts would be less than significant.

The operation of mechanical equipment such as air conditioning equipment may generate audible noise levels. However, mechanical equipment would likely be shielded from nearby uses to attenuate noise and avoid conflicts with adjacent uses. In addition, the Project's mechanical equipment would need to comply with the County's noise standards, which establish maximum permitted noise levels from mechanical

Table 4.10-10

Off-Site Traffic Noise Impacts

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)				Existing Project Increment [d] (B-A)	Future Project Increment [e] (D – C)	Cumulative Increment [f] (D – A)
	Existing (A)	Existing with Project [a] (B)	Future No Project [b] (C)	Future with Project [c] (D)			
Pico Canyon Road							
Between Lyons and Old Road	70.5	70.5	71.7	71.8	0.0	0.1	1.3
Between Old Road and Stevenson Ranch	67.9	68.1	70.2	70.3	0.2	0.1	2.4
Between Stevenson Ranch and Southern Oaks	63.1	63.9	63.3	64.1	0.8	0.8	1.0
Between Southern Oaks and Whispering Oaks	59.2	60.9	59.3	60.9	1.7	1.6	1.7
Between Whispering Oaks and A Street	50.0	57.9	50.8	57.8	7.9	7.0	7.8
Old Road							
Between Stevenson Ranch and Pico Canyon	69.5	69.5	70.6	70.7	0.0	0.1	1.2
Lyons							
East of I-5 NB Ramp	71.2	71.2	71.8	71.9	0.0	0.1	0.7
Stevenson Ranch							
Between Old Road and Pico Canyon	69.0	69.1	70.1	70.2	0.1	0.1	1.2
Southern Oaks							
South of Pico Canyon	59.1	59.1	59.1	59.1	0.0	0.0	0.0
Whispering Oaks							
South of Pico Canyon	57.2	57.2	57.2	57.2	0.0	0.0	0.0

[a] *Include existing plus Project traffic.*
[b] *Include future growth plus related (cumulative) projects identified in the Traffic Study.*
[c] *Include future growth plus related (cumulative) projects and Project traffic.*
[d] *Increase due to Project-related traffic only at existing.*
[e] *Increase due to Project-related traffic only at Project build-out.*
[f] *Increase due to future growth, related (cumulative) projects, and Project traffic.*

Source: PCR Services Corporation, 2014.

equipment. Project compliance with the County's noise standards would ensure that operational noise impacts would be less than significant.

The Project will include two 20 horsepower pumps for the water storage tanks located in parcel 104. The pumps would be located approximately 2,500 feet from existing residential uses and would generate 90 dBA,

L_{eq} at 3 feet from the pumps.[11] Based on a noise level source strength of 90 dBA at a reference distance of 3 feet, and accounting for barrier-insertion loss (minimum 20 dBA insertion loss for full shielding from the project buildings) and distance attenuation (minimum 58 dBA loss), the sound level at the residences from operation of the pumps would be 12 dBA and would not exceed the significance threshold; therefore, impacts would be less than significant.

Site Compatibility (Proposed On-site Noise Sensitive Uses)

Threshold NOISE-5: The Project would have a significant impact related to noise if the Project's residential uses are exposed to an exterior noise level of greater than 60 dBA CNEL for outdoor living areas (excluding balconies) or an interior noise level of greater than 45 dBA CNEL.

Impact Statement 4.10-5: Sound levels for Project residents would fall within the residential development standards established by the California Department of Health Services. Project impacts on on-site noise sensitive uses would be less than significant.

Based on the ambient noise monitoring data provided in Table 4.10-5, the Project would introduce noise sensitive uses (i.e., residential uses) to an ambient noise environment of 56 dBA (CNEL). According to the California Department of Health Services for Compatible Land Use, the Project site is considered "normally acceptable" for single-family residential development. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Impacts would be less than significant.

Threshold NOISE-6: The Project would have a significant impact if 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, which would expose people residing or working in the Project area to excessive noise levels.

Impact Statement 4.10-6: The Project is not 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. As such, the Project would not expose people residing or working in the Project area to excessive noise levels. No impacts would occur in this regard.

The Project is not within an airport land use plan. The Project is not within two miles of a public use airport. The nearest airports, Van Nuys Airport (16461 Sherman Way, Van Nuys, CA) and Whiteman Airport (12653 Osborne Street, Los Angeles) are located approximately 12 miles south and 13 miles southeast of the Project site, respectively. Therefore, construction or operation of the Project would not expose people to excessive airport related noise levels. No impact would occur in this regard.

[11] *Bolt Beranek and Newman Inc., Noise Control for Buildings and Manufacturing Plants, 1981.*

Threshold NOISE-7: The Project would have a significant impact if located within the vicinity of a private airstrip, which would expose people residing or working in the Project area to excessive noise levels.

Impact Statement 4.10-7: The Project is not located within the vicinity of a private airstrip. As such, the Project would not expose people residing or working in the Project area to excessive noise levels. No impacts would occur in this regard.

There are no private airstrips in the vicinity of the Project site. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels from such uses. No impact would occur in this regard.

Vibration

Threshold NOISE-8: The Project would have a significant impact related to noise if the Project construction and operation activities cause ground-borne vibration levels to exceed 0.035-inch-per-second PPV at nearby residential uses

Impact Statement 4.10-8: Construction activities associated with the Project would produce groundborne vibrations. However, vibration velocities would not exceed the established thresholds. Thus, construction vibration impacts would be less than significant.

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibration from construction activities rarely reach levels that damage structures. The FTA has published standard vibration velocities for construction equipment operations. The PPV for construction equipment pieces anticipated to be used during Project construction are listed in **Table 4.10-11**, *Typical Vibration Velocities for Potential Project Construction Equipment*.

The construction of the Project would generate ground-borne construction vibration during grading and excavation activities, and large bulldozer operation. Based on the vibration data provided in Table 4.10-11, vibration velocities from operation of large construction equipment would range from approximately 0.003 to 0.089 inches per second PPV at 25 feet from the source of activity. However, with implementation of Project Design Features, only small construction equipment such as small graders and small excavators will be allowed within 50 feet from residential buildings. Therefore, the nearest off-site residential structures are the single-family residential buildings located along Pico Canyon Road and at the end of Verandah Court, within 50 feet east of the construction site, which would be exposed to vibration velocities ranging from approximately 0.016 to 0.019 inches per second PPV, consistent with project design feature restrictions of use of small construction equipment. As these values are lower than the 0.035 inches per second PPV significance threshold, vibration impacts associated with construction would be less than significant at the nearest residential building.

Table 4.10-11

Typical Vibration Velocities for Potential Project Construction Equipment

Equipment	Reference Vibration Velocity Levels at 25 ft, inch/second PPV[a,b]
Large bulldozer	0.089
Loaded trucks	0.076
Small bulldozer	0.003

[a] *PPV=Peak particle velocity.*
[b] *FTA's "Transit Noise and Vibration Impact Assessment", Table 12-2.*

Source: USDOT Federal Transit Administration, 2006.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (NOISE-1 to NOISE-8) analyzed in this EIR section?

Impact Statement 4.10-9: The Project combined with the related projects would not result in substantial adverse effects related to noise in the Project area. Cumulative noise impacts would be less than significant and not cumulatively considerable.

The geographic context for the analysis of cumulative noise impacts depends on the impact being analyzed. Noise is by definition a localized phenomenon, and significantly reduces in magnitude as the distance from the source increases. As such, only projects and growth due to occur in the immediate Project area would be likely to contribute to cumulative noise impacts.

As discussed in Chapter 3.0, General Description of Environmental Setting, in this Draft EIR, there are 18 related projects in the surrounding areas. The potential for noise impacts to occur increases with proximity as well as intensity of noise-generating activities (on-site equipment and off-site traffic on the surrounding roadway network).

Of the 18 related projects listed in Table 3-1, the three closet related projects situated approximately 9,000 feet to 10,000 feet from the Project site, including Related Project No. 3 – Legacy Village (TR 61996), Residential units and Commercial Office/Retail, Related Project No. 13 – Lyons Canyon Ranch (TR 53653), Single Family Detached Residential Units, and Related Project No. 14 – UCLA Film Archives, Office/Archiving. All other related projects are minimum 11,000 feet away from the Project. The potential for noise impacts to occur are specific to the location of each related project as well as the cumulative traffic on the surrounding roadway network.

Construction Noise and Vibration

Noise from construction of the Project and related projects would be localized, thereby potentially affecting areas immediately within 500 feet from the construction site. Due to distance attenuation (more than 9,000 feet away) and intervening structures, construction noise from one site would not result in a noticeable increase in noise at sensitive receptors near the other site, which would preclude a cumulative noise impact. As such, cumulative impacts associated with construction noise would be less than significant. In addition, since Project impacts are less than significant, cumulative impacts are also less than significant because they are not cumulatively considerable.

Operation Noise and Vibration

As previously indicated in Table 4.10-10, the cumulative increase in future CNEL traffic noise levels at Project buildout with future ambient growth and the 18 related projects, relative to the existing baseline, would be 7.8 dB along Pico Canyon Road, between Whispering Oaks and A Street, As discussed above, residential uses along Pico Canyon Road, between Whispering Oaks and A Street are located approximately 50 feet from north of Pico Canyon Road and more than 20 feet higher than Pico Canyon Road. With attenuation of approximately 4 dBA by topography, the noise level increase would be approximately 3 dBA. As such, the impacts would be less than significant.

The Project site and surrounding area have been developed with uses that have previously generated, and will continue to generate, noise from lawn maintenance activities, mechanical equipment (e.g., air conditioning systems), and vehicle movements, among other community noise sources. As demonstrated above in Subsection d.(2). (Long-term Operations Noise), noise impacts related to project development would be less than significant. In addition, the other related projects are of sufficient distance (approximately 9,000 feet) from the Project such that operational noise levels from these projects would not be audible noise at the Project site. As such, cumulative noise impacts related to long-term Project operations would be less than significant. Because the Project noise impacts are less than significant, cumulative impacts are also less than significant, as they are not cumulatively considerable.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Construction

Mitigation Measure 4.10-1 provides for sound barriers that will achieve a noise reduction of 6 to 15 dBA between Project construction and off-site receptor locations. Mitigation Measures 4.10-2 would avoid operating more than two pieces of heavy equipment simultaneously, and would reduce the construction noise level 5 to 10 dBA during grading/excavation phases. With implementation of mitigation measures, construction noise levels at the nearby noise sensitive receptor locations (R1 and R2) would be below 60 dBA. Therefore, construction related noise impacts would be less than significant with implementation of mitigation measures.

Operations

Project impacts related to operational noise were determined to be less than significant and no mitigation measures are required. Traffic related noise impacts, where attenuation from setback (horizontal) and height (vertical) of noise sensitive receptors would reduce operational noise, would have a less than significant impact level.

4.11 PUBLIC SERVICES

This section analyzes potential impacts of the Project on public services including fire protection, sheriff protection, schools, parks, and libraries that would serve the Project. Relevant regulations and existing conditions are described as well as the potential for the Project to have impacts on public service facilities and the ability of the service providers to provide or maintain adequate services with implementation of the Project. Information in this section is based on correspondence with the Los Angeles County Fire Department (LACFD), the Los Angeles Sheriff's Department (LASD), the Newhall School District (NSD), and the Los Angeles County Public Library (LACPL), as well as information provided in the LACFD Strategic Plan (2012), the LACFD Developer Fee Detailed Fire Station Plan (2013), and the Draft General Plan 2035 (2014). Letters of correspondence with these agencies are located in Appendix J of this EIR.

1. ENVIRONMENTAL SETTING

Regulatory Framework

Federal

There are no federal services pertinent to the Project.

State

Fire Protection

California Fire Code 2013, California Code of Regulations, Title 24, Part 9

Section 100, California Fire Code (CFC) and International Fire Code (IFC) Adoption by Reference, of Title 32, Fire Code (Fire Code), of the Los Angeles County (County), California, Code of Ordinances, states that the County has adopted the 2013 Edition of the CFC, based on the IFC, 2012 Edition, with errata and supplements, published by the International Code Council (ICC), and the whole thereof (including Chapters 1 through 80; and Appendix B, Appendix BB, Appendix C, Appendix CC, and Appendix K). The IFC includes regulations for the protection of life and property from fire and explosion, as enforced by the LACFD. The purpose of the CFC is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety to fire fighters and emergency responders during emergency operations.

Schools

California Department of Education

The California Department of Education (CDE) administers California's public education system at the State level and the State Board of Education, by statute, is the governing and policy-determining body of the CDE. The Board adopts rules and regulations for the governing of the State's public schools.

School Facility Act – Development Fees – Assembly Bill 2926 – Senate Bill 50

Assembly Bill (AB) 2926 was enacted in 1986 by the State of California and added Section 65995 to the Government Code (GC). This Act authorized school districts to collect development fees for certain types of

projects based on demonstrated need and generates revenue for capital acquisitions and improvements. It also establishes the maximum fees, adjustable for inflation, which may be collected under this Act. In 1998, Senate Bill (SB) 50 subsequently revised the School Facilities Act by defining the Needs Analysis process in Sections 65995.5-65998 of the GC, by allowing school districts to collect fees higher than previously permitted to offset the costs associated with increasing school capacity needs as a result of new development.

Assembly Bill 16

In 2002, AB 16 created the Critically Overcrowded School Facilities program (Education Code, Article 11, Critically Overcrowded School Facilities, Sections 17078.10-17078.30), which supplements the new construction provisions within the School Facilities Program (SFP). The SFP provides State funding assistance for two major types of facility construction projects: new construction and modernization. The Critically Overcrowded School Facilities program allows school districts with critically overcrowded school facilities, as determined by the CDE, to apply for new construction projects in advance of meeting all SFP new construction program requirements. Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply.

Parks

Quimby Act

Section 66477 of the California Government Code, also known as the Quimby Act, was enacted by the California legislature in 1965 to promote the availability of park and open space areas in response to California's rapid urbanization and the need to preserve open space and provide parks and recreation facilities in response to this urbanization. The Quimby Act authorizes cities and counties to enact ordinances requiring the dedication of land, or the payment of fees for park and/or recreational facilities in lieu thereof, or both, by developers of residential subdivisions as a condition of the approval of a tentative map or parcel map. Under the Quimby Act, dedications of land shall not exceed three acres of parkland per 1,000 persons residing within a subdivision, and in-lieu fee payments shall not exceed the proportionate amount necessary to provide three acres of parkland, unless the amount of existing neighborhood and community parkland exceeds that limit. However, as a condition of zone change approval, General Plan amendment, specific plan approval, or development agreement, the County may require a subdivider to dedicate land according to the General Plan standards of four acres of local parkland per 1,000 residents in the unincorporated areas and six acres of regional parkland per 1,000 residents.[1] Compliance with the Quimby Act is discussed below as set forth in the County's General Plan and the Los Angeles County, Code of Ordinances, Title 21, Subdivisions, Chapter 21.24, Design Standards, Part 4, Lots, Section 21.24.340, Residential Subdivisions – Local Park Space Obligation – Formula and Section 21.24.350, Residential Subdivisions – Provision of local park sites.

[1] *Los Angeles County General Plan 2035, Public Review Draft, Chapter 10, Parks and Recreation Element, January 20, 2014.*

Local

Fire Protection

Los Angeles County Fire Department Strategic Plan, Engineering our Future (2012)

The LACFD Strategic Plan (Strategic Plan) is designed to address short and long term challenges. The Strategic Plan is designed to carry out the County's public safety mission in meeting the current and future needs of over four million residents living and working in communities throughout the County.

Los Angeles County Fire Department Developer Fee Detailed Fire Station Plan (2013)

The LACFD Developer Fee Detailed Fire Station Plan reflects the Consolidated Fire Protection District's fire service requirements as of October 2013 based upon growth projections and contacts with cities and developers who have shared their development plans with the District. The Plan identifies 18 additional fire stations, one temporary fire station, a replacement station, and the necessary capital equipment that will be required in the Areas of Benefit as well as the anticipated costs and time frames provided that development occurs as expected. The anticipated costs identified in this Plan will be funded by developer fee revenues or funds which the District has advanced from other sources. These advances will be repaid to the District when sufficient developer fee revenue is generated.

Los Angeles County, California, Code of Ordinances, Title 32, Fire Code

The purpose of the Fire Code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion, or dangerous conditions in new and existing building, structures, and premises, and to provide safety to fire fighters and emergency responders during emergency operations. Consistent with this purpose, the provisions of this code are intended, and have always been intended, to confer a benefit on the community as a whole and are not intended to establish a duty of care toward any particular person.

Sheriff Protection

Los Angeles County, California, Code of Ordinances, Title 22, Planning and Zoning, Division 2, Additional Regulations, Chapter 22.742, Law Enforcement Facilities Fee

The purpose of this chapter is to implement goals and policies of the County's General Plan with respect to the unincorporated urban expansion areas of Santa Clarita, Newhall, and Gorman. These goals and policies promote an equitable distribution of the costs and benefits of governmental actions; promote a distribution of population consistent with service system capacity and resource availability; seek to maintain a balance between increased intensity of development and the capacity of needed public facilities; give priority to upgrading existing public facilities in areas lacking adequate facilities; to mitigate adverse impacts due to the inadequacy of law enforcement facilities that might otherwise occur due to new development; and to comply with the procedures for adoption of developer fees contained in the Mitigation Fee Act, GC Section 66000, et seq. The amount of the fee to be imposed on a new residential project is based upon the findings and conclusions set forth in the "Santa Clarita-North Los Angeles County Law Enforcement Facilities Fee Study," dated October 29, 2007. The fee shall not exceed the estimated reasonable cost of providing law enforcement facilities for such residential development projects. The law enforcement facilities mitigation fee shall be a uniform fee within each law enforcement facilities fee zone based on the estimated cost of providing the projected law enforcement facility needs in each zone.

Parks

Los Angeles County, California, Code of Ordinances, Title 21, Subdivision, Chapter 21.24, Design Standards, Part 4, Lots, Section 21.24.340, Residential Subdivisions – Local Park Space Obligation – Formula

The subdivider of a residential subdivision shall provide local park space to serve the subdivision, pay a fee in lieu of the provision of such park land in accordance with provisions of Section 21.28.140, provide local park space containing less than the required obligation but developed with amenities equal in value to the park fee, or do a combination of the above in accordance with the requirements of this section. This section provides the local park space obligation formula.

Los Angeles County, California, Code of Ordinances, Title 21, Subdivision, Chapter 21.24, Design Standards, Part 4, Lots, Section 21.24.350, Residential Subdivisions – Provisions of Local Park Sites

Upon ascertaining the local park space obligation to be fulfilled by the subdivider of a residential subdivision pursuant to Section 21.24.340, the advisory agency shall review the proposed subdivision, the park and recreational needs of the future inhabitants of the subdivision, and existing or potential neighboring park and recreational facilities to determine whether all or any portion of the local park space obligation should be satisfied by the provision of park space to serve the subdivision. If the advisory agency determines that park space should be provided, the advisory agency shall advise the subdivider of the design and location of such space.

Los Angeles County, California, Code of Ordinances, Title 21, Subdivision, Chapter 21.28, Dedications, Section 21.28.140, Park Fees Required When – Computation and Use

If all or any portion of the local park space obligation for a residential subdivision is not satisfied by the provision of local park space designated by the advisory agency pursuant to Section 21.24.350, this section provides park fees to be paid as a condition precedent to final approval of the subdivision.

Libraries

Los Angeles County, California, Code of Ordinances, Title 22, Planning and Zoning, Division 2, Additional Regulations, Chapter 22.72, Library Facilities Mitigation Fee

The purpose of this chapter is to implement certain goals and policies of the County's General Plan, which goals and policies promote an equitable distribution of the costs and benefits of governmental actions, promote a distribution of population consistent with service system capacity and resource availability, seek to maintain a balance between increased intensity of development and the capacity of needed public facilities, and give priority to upgrading existing facilities in areas lacking adequate facilities; to mitigate any significant adverse impacts of increased residential development upon public library facilities as required by CEQA, Public Resources Code Section 21000 *et seq*; and to implement the Mitigation Fee Act, GC Section 66000 *et seq*. The amount of the fee to be imposed on a residential development project is based upon the findings and conclusions of the County librarian, as set forth in the "Report on Proposed Developer Fee Program for Library Facilities," prepared by the LACPL, dated October 1988. The fee shall not exceed the estimated reasonable cost of providing library facilities for such residential development projects. The library facilities mitigation fee shall be a uniform fee within each library planning area based on the estimated cost of providing the projected library facility needs in each library planning area.

Los Angeles County Draft General Plan 2035 (2014)

Chapter 10, Parks and Recreation Element

The purpose of the Parks and Recreation Element is to plan and provide for an integrated parks and recreation system that meets the needs of residents. The goals and policies set forth in the Element address the growing and diverse recreation needs of the communities served by the County.

Chapter 12, Safety Element

The purpose of the Safety Element is to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards. The California Government Code (CGC) Section 65302(g) requires the General Plan to address "the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards; flooding; and wildland and urban fires." The Safety Element addresses only limited aspects of man-made disaster, such as hazardous waste and materials management, in particular those aspects related to seismic events, fires, and floods. The Safety Element works in conjunction with the All-Hazard Mitigation Plan prepared by the Chief Executive Office-Office of Emergency Management (CEO OEM), which sets strategies for natural and man-made hazards in the County. The All-Hazard Mitigation Plan, which has been approved by the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency (CalEMA), includes a compilation of known and projected hazards in the County. The All-Hazard Mitigation Plan also includes information on historical disasters in the County.

Chapter 13, Public Services and Facilities Element

The Public Services and Facilities Element provides a summary of some of the major public services and facilities that serve the unincorporated areas of the County, and established policies that guide the provision of public services and facilities in conjunction with projected growth. The Element promotes the orderly and efficient planning of public facilities and infrastructure in conjunction with land use development and growth. This Element focuses on services and facilities that are affected the most by growth and development: drinking water, sanitary sewers, solid waste, utilities, early care and education, and libraries. The Element also discusses the key role of collaboration among County agencies in efficient and effective service provision and facilities planning. The Public Services and Facilities Element works in conjunction with the Los Angeles County Department of Public Works (DPW) Strategic Plan, which outlines service delivery goals for sanitary sewer, water supply, flood control, water quality, garbage disposal, and traffic lighting; the Integrated Waste Management Plan; the Sewer System Management Plan; the Library Strategic Plan; and other plans to address the provision of public services and facilities to the unincorporated areas of the County.

Existing Conditions

Fire Protection

The LACFD provides 24-hour, all-risk emergency services to a population of over four million residents living and working in 57 of the County's 88 cities including all of the County's unincorporated communities and the City of La Habra within Orange County. There are three major geographic regions (the North Regional Operations Bureau, the Central Regional Operations Bureau, and the East Regional Operations Bureau) within the LACFD service area, which are divided into nine divisions and 22 battalions. The LACFD provides

emergency services in response to a wide range of incidents including structure fires, wildfires, commercial fires, hazardous materials incidents, urban search and rescue, and swift water rescue. The LACFD responds to over 900 incidents daily from 170 fire stations and an average of 11,000 ocean rescues each year from 159 lifeguard towers. The LACFD consists of approximately 4,000 emergency personnel, including firefighters and lifeguards, and 800 business professionals. The LACFD includes 163 engine companies, 32 trucks and quints which include five light forces (i.e., combined fire engine and ladder truck units), 67 paramedic squads, 24 paramedic assessment engines, and nine helicopters (includes three paramedic air squads/fireships). The LACFD personnel includes four emergency support teams, two urban search and rescue task forces, three hazardous materials task forces, and a 210-member California Task Force 2 for national and international deployment.[2,3]

The Project site is located within Division 3 of the LACFD's North Regional Operations Bureau.[4] This Bureau includes Divisions 3 and 5, representing 44 fire stations serving communities in the Antelope and Santa Clarita Valleys, and the Air and Wildland Division, based in Pacoima. Division 3 serves the communities of Altadena, La Canada Flintridge, La Crescenta, Newhall, Chatsworth, Gorman, Stevenson Ranch, Santa Clarita, Aqua Dulce, Canyon Country, and Castaic.[5,6]

The Project site is susceptible to wildland fire hazards and is located within Fire Zone 4, which is a Very High Fire Hazard Severity Zone (VHFHSZ).[7] The LACFD Fire Station 124 (Fire Station), located at 25870 Hemingway Avenue, Stevenson Ranch, is the primary fire protection service provider to the Project site. The Fire Station is located approximately one mile northeast of the Project site. The Fire Station has a jurisdictional service boundary of 33.54 square miles. However, the LACFD operates under a regional concept in its approach to providing fire protection and emergency medical services, wherein emergency response units are dispatched as needed to an incident anywhere in the LACFD's service territory based on distance and availability, without regard to jurisdictional or municipal boundaries. There are no mutual aid agreements in effect within the Project area. The Fire Station is staffed with a three-person engine company (one captain, one fire fighter specialist and one fire fighter/paramedic) and a two-person paramedic squad (two fire fighter/paramedics) for each twenty-four hour shift.[8]

The LACFD uses national guidelines of a five minute response time within urban areas for the first arriving unit for fire and emergency medical services and eight minutes for the advanced life support (paramedic) unit. Within suburban areas, LACFD guidelines include an eight minute response time for the first arriving unit for fire and emergency medical services and 12 minutes for the paramedic units. The Project site is located within a mix of urban and suburban uses. During 2014, the Fire Station responded to 39 fire incidents, 1,598 medical incidents, and 285 other/miscellaneous incidents for a total of 1,922 emergency

---

2 *Los Angeles County Fire Department Strategic Plan, Engineering our Future, 2012.*

3 *Kevin T. Johnson, Acting Chief, Forestry Division Prevention Services Bureau, Letter Correspondence, July 8, 2015.*

4 *Los Angeles County General Plan 2035, Public Review Draft, Figure 12.7, Fire Department Battalions and Stations, January 20, 2014.*

5 *Los Angeles County Fire Department Strategic Plan, Engineering our Future, 2012.*

6 *Kevin T. Johnson, Acting Chief, Forestry Division Prevention Services Bureau, Letter Correspondence, July 8, 2015.*

7 *Los Angeles County General Plan 2035, Public Review Draft, Figure 12.5, Fire Hazard Severity Zones Policy Map, January 20, 2014.*

8 *Frank Vidales, Chief, Forestry Division, Prevention Services Bureau, LACFD, Letter Correspondence, November 4, 2014 and Kevin T. Johnson, Acting Chief, Forestry Division Prevention Services Bureau, Letter Correspondence, July 8, 2015.*

incidents with an average emergency response time of five minutes and 46 seconds (5:46 minutes).[9] According to the LACFD, it is estimated that the Fire Station would have a response time of five to seven minutes to the edge of the Project boundary on Pico Canyon Road.[10] As such, the Fire Station's average emergency response time of 5:46 minutes and the Fire Station's estimated response time of five to seven minutes to the Project site are both well within the LACFD's response time goals.[11]

There are no planned LACFD improvements in the immediate area of the Project site. However, the LACFD Developer Fee Detailed Fire Station Plan identifies one replacement station for temporary Fire Station 104 and six additional fire stations within the Santa Clarita Valley. Fire Station 104 is located at the intersection of Golden Valley Road and Soledad Canyon Road, Santa Clarita, approximately six miles northeast of the Project site.[12]

Sheriff Protection

The Los Angeles County Sheriff's Department (LASD) provides law enforcement services to more than one million residents living within 90 unincorporated communities, as well as to more than four million residents living within 40 contract cities. The LASD further provides law enforcement services to nine community colleges, Metro, and 48 superior courts. The LASD is divided into ten divisions, including the Office of Homeland Security, which focuses on potential threats related to local homeland security issues, such as terrorism or bioterrorism. The Field Operation Regions are centered on 25 patrol stations that are dispersed throughout the County. In addition to proactive enforcement of criminal laws, the LASD also provides investigative, traffic enforcement, accident investigation, and community education functions.[13]

The Project site is located within the Santa Clarita Valley service area. The Santa Clarita Sheriff Station (Sheriff Station), located at 23740 Magic Mountain Parkway, Valencia, is the primary law enforcement service provider to the Project site. The Sheriff Station is located approximately 3.5 miles northeast of the Project site. The Station's service area encompasses approximately 656 square miles and includes the City of Santa Clarita and unincorporated County territory between the City of Los Angeles to the south, the Kern County line to the north, the Ventura County line to the west, and the community of Agua Dulce to the east. The estimated resident population of the Sheriff Station's service area is 270,000 persons. The Sheriff Station is currently staffed by 189 sworn deputies and 38 civilian employees. The Sheriff Station provides 24-hour field deployment via multiple shifts, utilizing patrol cars, helicopters, emergency operations personnel, search and rescue personnel, and a mounted posse. The Sheriff Station currently deploys one to two patrol cars per shift to the Project area.[14]

According to the LASD, it is estimated that the Sheriff Station would have response times to the Project site for emergency, priority, and routine calls of approximately two to four minutes, five to ten minutes, and ten

---

9 *Frank Vidales, Chief, Forestry Division, Prevention Services Bureau, LACFD, Letter Correspondence, November 4, 2014 and Kevin T. Johnson, Acting Chief, Forestry Division Prevention Services Bureau, Letter Correspondence, July 8, 2015.*

10 *Ibid.*

11 *Ibid.*

12 *Ibid.*

13 *Los Angeles County General Plan 2035, Public Review Draft, Chapter 12, Safety Element, January 20, 2014.*

14 *Roosevelt Johnson, Captain of the Santa Clarita Valley Sheriff's Station, LASD, Letter Correspondence, March 6, 2014.*

to 20 minutes, respectively. Optimal response times for emergent, priority, and routine calls are ten minutes, 20 minutes, and 60 minutes, respectively. As such, the Sheriff Station's forecasted response times to the Project site are within the LASD's optimal response time goals. Further, various other law enforcement agencies within and beyond the limits of the County, including the California Highway Patrol (CHP), would provide additional law enforcement services and resources to the LASD via existing mutual aid agreements at that time.[15]

Schools

The Project site is located within the Newhall School District (NSD) (grades K through 6) and the William S. Hart Union High School District (Hart School District) (grades 7 through 12). The NSD is comprised of ten elementary schools. The Hart School District is comprised of nine high schools, six junior high schools, and six alternative schools/programs. Pico Canyon Elementary School, grades K through 6, is located at 25255 Pico Canyon Road, Stevenson Ranch, approximately 0.8 miles east of the Project site. Rancho Pico Junior High School, grades 7-8, is located at 26250 Valencia Boulevard, Stevenson Ranch, approximately 1.5 miles north of the Project site. West Ranch High School, grades 9-12, is located at 26255 Valencia Boulevard, Stevenson Ranch, approximately 1.5 miles north of the Project site. Refer to **Table 4.11-1**, *Existing Schools Serving the Project Vicinity*, for student enrollment data and design capacity. As shown in Table 4.11-1, Rancho Pico Junior High School has a student enrollment of 982 with a design capacity of 1,125 students. As such, Rancho Pico Junior High School is not considered to be overcrowded. Pico Canyon Elementary School has a student enrollment of 961 with a design capacity of 850 students. West Ranch High School has a student enrollment of 2,724 with a design capacity of 2,385. As such, both schools are considered to be overcrowded.

Table 4.11-1

Existing Schools Serving the Project Vicinity

School	Current Enrollment	Current Design Capacity	Percent of Capacity (%)
Pico Canyon Elementary School	961[a]	850[a]	113
Rancho Pico Junior High School	982[b]	1,125[b]	87
West Ranch High School	2,724[b]	2,385[b]	114

[a] *Source: Ronna Wolcott, Assistant Superintendent, Business Services, Newhall School District, Letter Correspondence, April 20, 2014.*

[b] *Source: Vista Canyon Draft EIR, Section 4.10, Education, prepared by Impact Sciences, Inc., dated October 2010.*

Parks

The Los Angeles County Department of Parks and Recreation (LACDPR) is responsible for the operation and maintenance of public parks in the unincorporated areas of the County. The County park system, including facilities that are owned, operated, and maintained by the County, totals approximately 70,000 acres. The County offers a wide variety of parks and recreation resources, which generally fall under two systems: the

[15] *Ibid.*

local park system and the regional park system. The local park system consists of parks of varying sizes that meet local needs and offer opportunities for daily recreation. This system includes community parks, neighborhood parks, pockets parks, and park nodes. The regional park system is intended to meet the park and recreation needs of residents and visitors throughout the County. This system consists of community regional parks, regional parks, and special use facilities. The County offers multi-use trails and access to other recreation facilities, such as city parks and facilities and private facilities. The County offers unique trail user opportunities that showcase its diverse scenery and provide connectivity to the parks, open spaces, cultural resources, and wilderness areas. Typical trail uses range from hiking and walking, to mountain biking and horseback riding, with many users participating in more than one activity. The County strives to make all trails multi-use and accessible to all non-motorized users including pedestrians, equestrians, and mountain bicyclists, where appropriate. In addition to local and regional parks and trails, residents are served by multi-benefit parks, school sites, city parks and facilities, private recreational facilities, and greenways.[16]

Pico Canyon Park, located at 25600 Pico Canyon Road, Stevenson Ranch, is located approximately 0.5 mile east from the Project site. The park is 21-acres in size and is home to a large transplanted oak tree popularly known as the "Million Dollar Oak Tree" and "Old Glory." Jake Kuredjian Park, located at 25265 Pico Canyon Road, Stevenson Ranch, is located approximately 0.7 miles east of the Project site.

Libraries

In fiscal year 2011-2012, the LACPL circulated 16.5 million items to 3.1 million cardholders; answered over eight million reference questions; provided 18,000 programs to 500,000 children, teens, and adults; and assisted the public with three million internet sessions on the LACPL's public access computers. Supplementing the 7.5 million volume book collection, the LACPL also offers magazines, newspapers, microfilm, government publications, specialized reference materials, magazines, audio-visual media, adult, teen, and children programs, downloadable audio and e-books, and internet access, including Wi-Fi.[17]

The Project site is located within the service area of the LACPL. The Stevenson Ranch Express Library (Library) located at 26233 W. Faulkner Drive, Stevenson Ranch, served the Project area until recently. The Library was located approximately 0.8 miles north of the Project site. The estimated service area population of the Library is 10,970 persons. The Library was 480 square feet and had a collection of 6,090 books and other library materials. The Library had one full-time and two part-time employees. The LACPL opened a new, nearly 12,000 square-foot library to replace the 480 square-foot Express Library facility. The opening of the new library was March 2015.[18]

A standard service ratio has been adopted by the LACPL to determine the number of volumes and floor area needed to adequately service a given population. The LACPL has adopted a service ratio of 0.50 gross square feet of library facility space per capita, 2.75 items (books and other library materials) per capita, and 1.0 public access computers per 1,000 persons served.[19]

---

16 *Los Angeles County General Plan 2035, Public Review Draft, Chapter 10, Parks and Recreation Element, January 20, 2014.*

17 *Los Angeles County General Plan 2035, Public Review Draft, Chapter 13, Public Services and Facilities Element, January 20, 2014.*

18 *Yolanda De Ramus, Chief Deputy, LACPL, Letter Correspondence, May 19, 2014.*

19 *Ibid.*

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provides thresholds of significance to determine whether a project would have a significant environmental impact regarding public services. Based on the size and scope of the Project and the potential for public services impacts, the threshold identified below is included for evaluation in this EIR.

Would the Project:

Threshold PS-1: Create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services? (refer to Impact Statement 4.11-1):

- Fire protection?
- Sheriff protection?
- Schools?
- Parks?
- Libraries?
- Other public facilities?

Methodology

The analysis evaluates the potential for impacts on public services and facilities that would serve the Project. The methodology for this analysis included corresponding with the various public service agencies and providers with jurisdiction over the Project area to request current information regarding service ratios, response times, performance objectives, available equipment and facilities. In addition, available information from LACFD Strategic Plan (2012), the LACFD Developer Fee Detailed Fire Station Plan (2013), and the Draft General Plan 2035 (2014), as well as the websites for each the service agencies, were reviewed for background information. Based on the addition of the Project and its anticipated associated number of residents, in consideration of existing service conditions, the analysis makes a determination as to whether the Project would adversely affect the ability of the service providers to maintain or provide acceptable service to their designated service area (including the Project area) and whether new or physically altered facilities would be required.

Project Design Features

There are no specific Project Design Features (PDFs) that relate to potential public service impacts.

Analysis of Project Impacts

Provision of Public Services

Threshold PS-1: Would the Project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection?
- Sheriff protection?
- Schools?
- Parks?
- Libraries?
- Other public facilities?

Impact Statement 4.11-1: Implementation of the Project could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, sheriff protection, schools, parks, libraries, or other public facilities. However, compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level.

Fire Protection

The Project proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, water tanks and a pump station, water quality treatment basins, and an emergency secondary fire access road. The Project would generate a new residential population of 306 residents.[20] As mentioned above, the closest LACFD fire station that would provide primary fire protection service to the Project site is Fire Station 124. The Fire Station is located approximately one mile northeast of the Project site. According to the LACFD, the response travel time to the Project site is estimated between five and seven minutes, which is well within the LACFD goal response times for urban areas (five minutes for first arriving and eight minutes for paramedic) and suburban areas (eight minutes for first arriving and 12 minutes for paramedic). The Project would be designed, constructed and maintained in accordance with the LACFD development and construction requirements to minimize the risks associated with fires. As such, the incremental increase in population from the Project would not be substantial enough to significantly impact fire protection services on a daily or annual basis.

No new fire protection facilities would be necessary as a result of Project implementation. However, as discussed in the Existing Conditions section above, the LACFD Developer Fee Detailed Fire Station Plan

[20] *Based on average household size of 3.00 persons/household for Los Angeles County per the U.S. Census Bureau American Fact Finder. 102 single-family residences X 3.00 = 306. This calculation is consistent with the 2.99 persons per household average for Los Angeles County listed in State of California, Department of Finance*, E-5 Population and Housing Estimates for Cities, Counties and the State, January 2011-2014, with 2010 Benchmark.

(2013) identifies one replacement station for temporary Fire Station 104 and six additional fire stations within the Santa Clarita Valley. Fire Station 104 is located at the intersection of Golden Valley Road and Soledad Canyon Road, Santa Clarita, approximately six miles northeast of the Project site. Nonetheless, to ensure that the Project pays its fair share of costs associated with fire protection, the Permittee shall comply with the Developer Fee Program for the LACD as provided in Los Angeles County Code of Ordinances, Title 32, Fire Code. Compliance would offset the incremental cost of the increased demand to maintain adequate fire protection facilities and equipment, and/or personnel, resulting from the Project by payment of development fees per the Code. As such, impacts to fire protection services and facilities would be less than significant.

As indicated above, the Project site is susceptible to wildland fire hazards and is located within Fire Zone 4, which is a VHFHSZ. Section 4.7, *Hazards and Hazardous Materials*, discusses the potential for impacts associated with wildland fires. Section 4.7 provides a detailed discussion of the fuel modification zones (i.e., Fuel Modification Zones, A, B, C and the Emergency Secondary Fire Access Road Zone) proposed by the Project, each of which would be designed specifically to help suppress a wildland fire in different ways. As discussed in Section 4.7, with implementation of the prescribed mitigation measure and the regulatory framework relating to fire prevention, any significant risk of loss, injury or death involving wildland fires, would be minimized to the maximum extent feasible. As importantly, because the existing site is not maintained as a fuel modification area and consists of uncontrolled wildland vegetation, existing single-family residences to the east of the Project site would gain increased protection from the spread of fire. As such, the Project would reduce the threat of wildland fires to people and structures in the Project vicinity and thus, lessen the potential demand for fire services needed in the event of a wildland fire.

Incorporation of the LACFD requirements (including those contained in the approved Preliminary Fuel Modification Plan) such as providing fire hydrants spaced at 600 feet or less and roadways designed to meet or exceed minimum fire access requirements, would ensure the Project access is designed to reduce and minimize emergency access interference time so that fire protection service is more effective. An emergency vehicle access road to the east, connecting with Verandah Court, would be maintained to provide emergency fire access through the roadway infrastructure of the private properties southeast of the Project site. According to LACFD standards, the emergency secondary fire access road shall provide a minimum paved width of 24 feet, clear- to-sky, and shall maintain all-weather access capabilities with a bridge or culvert to cross the existing water course. The fire access road shall comply with the LACFD standard road requirements including, but not limited to, a maximum grade of 15 percent; grade differential to not exceed ten percent in ten feet; maximum 32 feet centerline turning radius; and maintain a minimum ten feet brush clearance on each side of the road. The emergency secondary fire access road shall be constructed with a material designated within the Fire Code and shall be gated with an approved locking device and designed to not encroach into the required access width.[21] As discussed in Section 4.12, *Traffic/Transportation*, the Project would result in less than significant traffic impacts with implementation of the prescribed mitigation measures. Accordingly, the functionality of the street system would remain and there would be available capacity to accommodate the projected traffic volumes, in addition to emergency service vehicles.

Another important component of ensuring fire protection services is the availability of adequate firefighting water flow. As part of the Project's proposed infrastructure improvements, two 250,000 gallon water tanks and an on-site pump station would be provided, inclusive of fire protection needs. The minimum fire flow

[21] *Frank Vidales, Chief, Forestry Division, Prevention Services Bureau, LACFD, Letter Correspondence, November 4, 2014.*

requirement for the Project site is 1,250 gallons per minute (gpm) at 20 pounds per square inch (PSI) for two-hour duration.[22] The ability of the water service provider to provide water supply to the Project site is discussed in Section 6.0, *Other Mandatory CEQA Considerations.* As discussed therein, there is adequate water supply for the Project.[23] To ensure that adequate fire flows are provided to the Project site, per correspondence with the LACFD, Mitigation Measure 4.7-3 is prescribed in Section 4.7, *Hazards and Hazardous Materials*. Mitigation Measure 4.7-3 requires the Permittee to fund any additional necessary upgrades to the surrounding water infrastructure to meet fire flow requirements, with the Valencia Water Company designing and making the necessary upgrades at the Permittee's expense.

Overall, compliance with the applicable regulatory requirements and implementation of the prescribed mitigation measures would ensure that the Project would not adversely affect fire protection services, and all potentially significant impacts in this regard would be reduced to a less than significant level.

Mitigation Measures

Refer to Mitigation Measure 4.7-3 in Section 4.7, *Hazards and Hazardous Materials*, in this EIR. .

Sheriff Protection

As discussed in the Existing Conditions above, the closest LASD sheriff station that would provide primary sheriff protection services to the Project site is the Santa Clarita Sheriff Station. The Sheriff Station is located approximately 3.5 miles northeast of the Project site. The Project would generate a population of approximately 306 residents. This incremental increase in population, compared to the estimated resident population of 270,000 persons within the Sheriff Station's service area, would not create a need for expanding existing facilities or staff, construction of a new facility, or adversely impact types of services provided. With development of the site, patrol routes in the area would be slightly modified to include the Project site; however, the LASD's current adequate response times would not be substantially changed such that response time objectives are compromised in any manner. The forecasted response times to the Project site for emergent, priority, and routine calls are approximately two to four minutes, five to ten minutes, and 10 to 20 minutes, respectively. Optimal response times for emergent, priority, and routine calls are ten minutes, 20 minutes, and 60 minutes, respectively. As such, the Sheriff Station's forecasted response times to the Project site are within the LASD's optimal response time goals. Nonetheless, to ensure that the Project pays its fair share of costs associated with sheriff protection, the Permittee shall comply with the Developer Fee Program for the LASD as provided in the Los Angeles County Code of Ordinances, Title 22, Planning and Zoning, Division 2, Additional Regulations, Chapter 22.74 Law Enforcement Facilities Fee. Compliance would offset the incremental cost of the increased demand to maintain adequate sheriff protection facilities and equipment, and/or personnel, resulting from the Project by payment of development fees per the Code. As the Project site is located within the Santa Clarita Zone, the law enforcement facilities mitigation fee per single-family dwelling is $467.00 for a total Project law enforcement facilities fee requirement of $47,634.[24] As such, impacts to sheriff protection services and facilities would be less than significant.

[22] *Ibid.*

[23] *Cris Perez, Valencia Water Company, Email Correspondence, dated July 1, 2014.*

[24] *102 single-family dwellings X $467.00 = $47,634.00.*

Schools

Operation

The Project site is served by the NSD and the Hart School District, within the attendance boundaries of Pico Canyon Elementary School, Rancho Pico Junior High School, and West Ranch High School. The Project would introduce 102 single-family detached residential dwellings that would generate a population of 306 residents. Based on the NSD and Hart School District generation factors, the Project would generate approximately 37 elementary age students, 13 middle school students, and 24 high school students for a total of 74 school-aged children; refer to **Table 4.11-2**, *NSD & Hart School District Student Generation Factors*. As shown in Table 4.11-1 above, Pico Canyon Elementary School has a total elementary student enrollment of 961, exceeding the total elementary student capacity of 850. West Ranch High School has a total student enrollment of 2,724, exceeding the total high school student capacity of 2,385. Rancho Pico Junior High School has a student enrollment of 982 with a design capacity of 1,125 students. The addition of the projected 13 middle school students would not exceed the middle school student capacity. However, the projected 37 elementary students and 24 high school students would further exceed the total elementary and high school student capacities of Pico Canyon Elementary School and West Ranch High School.

Table 4.11-2

NSD & Hart School District Student Generation Factors

School (School District)	Student Generation Rate Per Single-Family Residential Unit	Project Total*
Pico Canyon Elementary School (NSD)	0.363[a]	37
Rancho Pico Junior High School (Hart School District)	0.1270[b]	13
West Ranch High School (Hart School District)	0.2386[b]	24
		Total: 74 Students

* *Student generation rate multiplied by the proposed 102 single-family detached residential dwellings.*

[a] *Source: Ronna Wolcott, Assistant Superintendent, Business Services, Newhall School District, Letter Correspondence, April 20, 2014.*

[b] *Source: Vista Canyon Draft EIR, prepared by Impact Sciences, Inc., dated October 2010.*

Pico Canyon Elementary School has no room for expansion of school buildings or portable classrooms. Further, there are no plans for expansion of facilities on school property.[25] Due to the cap on school enrollment, additional elementary school children are diverted and assigned to other elementary schools within the NSD. According to the NSD, other schools with available capacity are not located within the vicinity of the Project site and the NSD does not offer bus services for this situation.[26] However, there are six NSD elementary schools within approximately three miles of the Project site: (1) Stevenson Ranch Elementary School, 25820 North Carroll Lane, Stevenson Ranch, located approximately 0.8 miles north of the Project site; (2) Oak Hills Elementary School, 26730 Old Rock Road, Valencia, located approximately 1.75 miles north of the Project site; (3) Wiley Canyon Elementary School, 24240 West La Glorita Circle, Newhall, located approximately two miles east of the Project site; (4) Meadows Elementary School, 25577 North

[25] *Ronna Wolcott, Assistant Superintendent, Business Services, Newhall School District, Letter Correspondence, April 20, 2014.*

[26] *Ibid.*

Fedala Road, Valencia, located approximately 2.5 miles northeast of the Project site; (5) Old Orchard Elementary School, 25141 North Avenida Rondel, located approximately 2.7 miles east of the Project site; and (6) Peachland Elementary School, 24800 Peachland Avenue, Newhall, located approximately 2.85 miles east of the Project site. If additional high school children are diverted and assigned to other high schools within the Hart School District, William S. Hart Union High School, 21380 Centre Pointe Parkway, is located approximately five miles northeast =of the Project site . Further, pursuant to SB 50 (Section 65995 of the GC), payment of fees to the NSD and the Hart School District is considered full mitigation for Project impacts, including impacts related to the provision of new or physically altered governmental facilities. With compliance with SB 50, the Project's potentially significant impact on schools would be reduced to a less than significant level. SB 50 requires the payment of prescribed fees for the construction of capital facilities, including classrooms, for additional students generated by this and other new projects.

Short-Term Construction Impacts

Construction vehicles traveling to and from the Project site would generally travel along Pico Canyon Road. Project-related construction traffic and activities, including worker travel and the delivery of construction materials, could potentially affect school traffic, student pick-up/drop off, pedestrian routes, and/or transportation safety in the Project area, specifically near Pico Canyon Elementary School, located at 25255 Pico Canyon Road, approximately 0.8 miles east of the Project site. Thus, construction traffic could impact existing and proposed school traffic traveling along Pico Canyon Road. It is conservatively concluded in this EIR that construction traffic could result in potentially significant safety impacts to school routes near the Project site. Implementation of Mitigation Measure 4.11-1 to 4.11-4 and Mitigation Measure 4.12-1 in Section 4.12, *Traffic/Transportation,* would reduce potentially significant construction-related impacts regarding school pedestrian routes and traffic and safety access to a less than significant level. Mitigation Measure 4.12-1 requires the Project to prepare a Construction Staging and Traffic Management Plan to identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of construction activities associated with the Project, subject to final approval by the Los Angeles County DPW. Mitigation Measures 4.11-1, 4.11-2, 4.11-3, and 4.11-4 establish safety requirements to ensure that student safety associated with driving or walking to school, as well as other pedestrian and vehicular movements, are not adversely affected by construction traffic.

Mitigation Measures

Please refer to Mitigation Measure 4.12-1 in Section 4.12, *Traffic/Transportation*, in this EIR. The following mitigation measures are also prescribed.

Mitigation Measure 4.11-1 During construction, on-going communication shall be maintained with school administration at the Pico Canyon Elementary School, providing sufficient notice to forewarn students and parents/guardians when existing pedestrian and vehicle routes to the school may be impacted in order to ensure school traffic and pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.

Mitigation Measure 4.11-2 In order to ensure school traffic and pedestrian safety, during construction, construction vehicles shall not haul past the Pico Canyon Elementary School except when school is not in session. If that is infeasible, construction vehicles shall not haul during school arrival or dismissal times. This mitigation measure is to be verified by

the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.

Mitigation Measure 4.11-3 During construction, crossing guards shall be provided by the Permittee in consultation with the Pico Canyon Elementary School, as appropriate, when safety of students may be compromised by construction-related activities at impacted school crossings in order to ensure school pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.

Mitigation Measure 4.11-4 During all hours of construction, temporary traffic control, signage, and/or flaggers shall be present on Pico Canyon Road to direct vehicular traffic and pedestrians around the construction site in order to ensure school traffic and pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.

Parks

As discussed under Existing Conditions, Pico Canyon Park, located at 25600 Pico Canyon Road, Stevenson Ranch, is located approximately 0.5 mile east from the Project site. The park is 21-acres in size and is home to a large transplanted oak tree popularly known as the "Million Dollar Oak Tree" and "Old Glory." Jake Kuredjian Park, located at 25265 Pico Canyon Road, Stevenson Ranch, is located approximately 0.7 miles east of the Project site. The Project would generate a population of approximately 306 residents. While the Project's resident population would be expected to utilize existing neighborhood and regional parks in the surrounding area, the introduction of this relatively small population in comparison with the local and regional service populations would not substantially affect park facilities. Nonetheless, the Project would be required to meet the parkland dedication or fee requirements pursuant to the Quimby Act and the Los Angeles County Code of Ordinances (Chapter 21.24, Design Standards, Section 21.24.340, Residential Subdivisions – Local Park Space Obligation – Formula; Chapter 21.24, Design Standards, Section 21.24.350, Residential Subdivisions – Provisions of Local Park Sites; and Chapter 21.28, Dedications, Section 21.28.140, Park Fees Required When – Computation and Use). Payment of these park impact fees would ensure impacts on parks would be less than significant.

Library

The Stevenson Ranch Express Library served the Project area. The Library was located approximately 0.8 miles north of the Project site. The LACPL opened a new, nearly 12,000 square-foot library to replace the 480 square-foot Express Library facility. The new library opened March 2015. Due to the incremental population increase of the Project, the impact on library services is anticipated to be minimal and would not affect the County's ability to provide library services. The LACPL has adopted a service ratio of 0.50 gross square feet of library facility space per capita, 2.75 items (books and other library materials) per capita, and 1.0 public access computers per 1,000 persons served. As such, the Project would generate a need for 153 additional square feet of library space,[27] approximately 842 additional book items (books and other library materials),[28] and approximately one public access computers.[29] To ensure that the Project pays its fair share

[27] *0.50 square feet of library facility space X 306 persons = 153 additional square feet of library space.*

[28] *2.75 items X 306 persons = 841.5 additional items.*

of costs associated with library services, the Permittee shall comply with the Developer Fee Program for the LACPL as provided in Los Angeles County, Code of Ordinances, Title 22, Planning and Zoning, Division 2, Additional Regulations, Chapter 22.72, Library Facilities Mitigation Fee. Compliance would offset any incremental need for funding of capital improvements to maintain adequate library facilities and service, resulting from the Project by payment of development fees per the Code. Per the LACPL, the current mitigation fee is $857.00 per residential unit. The total library facilities mitigation fee required is $87,414.00.[30] As such, impacts regarding library services would be less than significant.

Other Public Facilities

No other public facilities beyond those discussed above are anticipated to have the potential for adverse physical impacts associated with Project implementation. As such, no impacts would occur in this regard.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the threshold (PS-1) analyzed in this EIR section?

Impact Statement 4.11-2: The Project combined with the related projects would not result in substantial adverse effects related to public services in the Project area. Cumulative public service impacts would be less than significant and not cumulatively considerable.

Fire Protection

The Project and related projects would increase the population and introduce structures that would create increased demand for fire protection services in the County. This cumulative demand for fire protection would require additional personnel and resources at the LACFD to provide adequate service levels and to maintain existing response times.

Individual developments are required to comply with pertinent provisions and standard conditions of the CFC and the LACFD to minimize the potential for fire hazards, to promote fire safety, and to facilitate emergency response. Similar to this Project, other related projects located in high fire hazard areas would be required to implement fuel modification plans per the requirements of the LACFD. These fire protection requirements would reduce fire hazards to existing residential uses that border current opens space areas, thus providing a beneficial impact regarding wildland fire hazards.

The LACFD's operating budget includes funds generated by property tax revenues. Facilities, and equipment expansion and acquisition in the Santa Clarita Valley are funded with developer fee revenues. Personnel costs, i.e., fire station staffing, are funded by property tax revenues which are supplemented by the tax-base expansion. Additionally, the Permittee, all present projects, and reasonably foreseeable future projects, would be required to pay applicable fees established for public improvements and facilities associated with the LACFD. Tax-base and developer fee revenue from development of the Project as well as past, present, and reasonably foreseeable future projects would generate funding for fire protection services to provide

[29] *306 persons/1,000 persons = 0.306 X 1 = 0.306 public access computers. As a conservative approach, rounding up to one.*

[30] *102 single-family dwellings X $857.00 = $87,414.00.*

needed increases in staffing, fire stations, and equipment, as necessary, and to keep response times within acceptable limits (i.e. five minutes for first arrival and eight minutes for paramedic response within urban areas and eight minutes for first arrival and 12 minutes for paramedic response within suburban areas). Consequently, the cumulative demand for fire protection services would incrementally increase over time, resulting in potential cumulative impacts associated with the construction of new facilities or the alteration of existing facilities. Any new or altered facilities that would be required in the future would be subject to separate CEQA review.

While new development projects could place burdens on fire protection services, potentially resulting in significant impacts to service providers, compliance with the CFC and LACFD standard conditions, implementation of fuel modification plans, and payment of fees and annual property taxes on a project-by-project basis would avoid potentially significant cumulative adverse impacts on fire protection services by providing the necessary equipment and staff to allow for maintenance of service response times. Thus, the Project would not substantially contribute to cumulatively considerable impacts regarding fire protection services and facilities and, as such, impacts would be less than significant.

Sheriff Protection

The Project and other related projects would increase the population and introduce structures that would generate an increased demand for sheriff protection services. This cumulative demand for sheriff services would require additional personnel and resources at the LASD to provide adequate service levels and to maintain existing response times. For sheriff protection services, the LASD is part of a mutual aid arrangement with various cities in the County under the California Law Enforcement Mutual Aid System. Under this agreement, all law enforcement agencies in the State assist adjacent or neighboring agencies upon request. Annual evaluation of sheriff protection services by the individual cities and the County determine the adequacy of sheriff protection services and the necessary resources to meet the public safety needs of the individual communities.

The LASD's operating budget includes funds generated by tax revenues and development fees as provided in the Los Angeles County, Code of Ordinances, Title 22, Planning and Zoning, Division 2, Additional Regulations, Chapter 22.74, Law Enforcement Facilities Fee. Facilities, personnel, and equipment expansion and acquisition are tied to the County's budget process and tax-base expansion. Additionally, the Permittee, all present projects, and reasonably foreseeable future projects, would be required to pay applicable taxes and fees established for public improvements and facilities associated with the LASD. Tax-base and fee expansion from development of the Project as well as past, present, and reasonably foreseeable future projects would generate funding for sheriff protection services to provide needed increases in staffing, sheriff stations and equipment, and to keep response times within acceptable limits. Consequently, the cumulative demand for sheriff protection services would incrementally increase over time, resulting in potential cumulative impacts associated with the construction of new facilities or the alteration of existing facilities. Any new or altered facilities that would be required in the future would be subject to separate CEQA review.

While new development projects could place burdens on sheriff protection services potentially resulting in significant impacts to the LASD, individual related projects would be subject to review by the LASD to determine ways to reduce the potential for crime incidence and demand for sheriff protection services. Further, payment of fees and annual property taxes on a project-by-project basis would minimize the potential for impacts to sheriff protection services. Overall, compliance with the LASD standard conditions,

implementation of site specific security features, where available, and payment of fees and taxes on a project-by-project basis would avoid potentially significant cumulative adverse impacts on sheriff protection services by providing the necessary equipment and staff to allow for maintenance of service response times. Thus, the Project would not substantially contribute to cumulatively considerable impacts regarding sheriff protection services and facilities and, as such, impacts would be less than significant.

Schools

The Project, in conjunction with other related projects could impact school facilities and services. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." The Permittee, the sponsors of all past projects since the passage of SB 50, all present projects, and reasonably foreseeable future projects would be required to pay school impact fees established to offset potential impacts on school facilities. Payment of these fees is considered to be full and complete mitigation of school impacts. Therefore, although the Project and other past, present, and reasonably foreseeable future projects could result in additional students and the need for additional facilities, payment of the fees mandated under SB 50 is the mitigation prescribed by the statute, and payment of the fees is deemed full and complete mitigation. Thus, the cumulative public services impact of the Project, considered with past, present, and reasonably foreseeable future projects, with respect to schools, would be less than significant.

Parks

The Project, in conjunction with other related projects, could impact school facilities and services. However, the individual development projects would be required to meet the parkland dedication or fee requirements pursuant to the Quimby Act and the Los Angeles County Code of Ordinances (Chapter 21.24, Design Standards, Section 21.24.340, Residential Subdivisions – Local Park Space Obligation – Formula; Chapter 21.24, Design Standards, Section 21.24.350, Residential Subdivisions – Provisions of Local Park Sites; and Chapter 21.28, Dedications, Section 21.28.140, Park Fees Required When – Computation and Use). Thus, the cumulative public services impact of the Project, considered with past, present, and reasonably foreseeable future projects, with respect to parks, would be less than significant.

Libraries

The geographic area in which cumulative effects to libraries could occur is considered to be the County in its entirety. The Project, in combination with other related projects would increase the demand for library services. The increased demand for library services would be distributed over the region, resulting in a nominal increase in demand to any one library facility. Additionally, the Permittee, all present projects, and reasonably foreseeable future projects, would be required to pay applicable development fees on a project-specific basis, as provided in the Los Angeles County, Code of Ordinances, Title 22, Planning and Zoning, Division 2, Additional Regulations, Chapter 22.72, Library Facilities Mitigation Fee. Payment of fees on a project-by-project basis would avoid potentially significant cumulative adverse impacts on library services by providing the necessary library materials, facilities, and staff to allow for maintenance of acceptable library service ratios. Thus, the Project would not substantially contribute to cumulatively considerable impacts regarding library services and facilities and, as such, cumulative impacts would be less than significant.

Other Public Facilities

No other public facilities beyond those discussed above are anticipated to have the potential for adverse physical impacts associated with Project implementation. The Permittee, all present projects, and reasonably foreseeable future projects, would be required to pay applicable development fees on a project-specific basis. Thus, the Project would not substantially contribute to cumulatively considerable impacts regarding other public facilities and, as such, cumulative impacts would be less than significant.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Public service impacts would be less than significant with implementation of the prescribed mitigation measures and compliance with applicable regulatory requirements.

4.12 TRAFFIC/TRANSPORTATION

This section analyzes the Project's potential impacts on traffic and the circulation system. Relevant regulations and existing conditions are described as well as the potential for the Project to result in traffic/transportation-related impacts associated with: increases in vehicle trips and traffic congestion; exceedance of established levels of service by the County of Los Angeles (County); the potential for the Project to conflict with an applicable congestion management program (CMP); and potential to result in inadequate emergency access. The traffic impact analysis in this section is based on the *Aidlin Hills VTTM 52796 Traffic Impact Analysis* (herein referred to as the "Traffic Study"), prepared by Stantec Consulting Services, Inc., dated November 24, 2014. The Traffic Study is contained in Appendix K of this EIR. The Traffic Study has been prepared in consultation with the Los Angeles County Department of Public Works (DPW).

1. ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

There are no federal traffic/transportation regulations pertinent to the Project.

State

Statewide Transportation Improvement Program

The California Department of Transportation (Caltrans) administers transportation programming, which is the public decision making process that sets priorities and funds projects envisioned in long-range transportation plans. Caltrans commits expected revenues over a multi-year period to transportation projects. The Statewide Transportation Improvement Program (STIP) is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources.

Senate Bill 743

Senate Bill 743 (SB 743) was signed by Governor Brown on September 27, 2013. The purpose of SB 743 is to streamline the review under CEQA for several categories of development projects, including the development of infill projects in transit priority areas, and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. The bill adds Chapter 2.7: Modernization of Transportation Analysis for Transit Oriented Infill Projects to the CEQA Statute (Section 21099). Section 21099(d)(1) provides that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. In addition, SB 743 will result in a change in the metrics for determining impacts relative to the transportation network through the development of new methodologies for traffic analyses for CEQA documents, This promotes the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promotes the development of multimodal transportation system, and provides clean, efficient access to destinations. Currently, environmental review of transportation impacts focuses on the delay that

vehicles experience at intersections and on roadway segments, which is often measured using level of service (LOS). Mitigation for increased delay often involves widening a roadway or the size of an intersection, which increases capacity and may, therefore, increase auto use and emissions and discourage alternative forms of transportation. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks and promotion of a mix of land uses.

SB 743 requires that the Office of Planning and Research (OPR) prepare revisions to the CEQA guidelines criteria for determining the significance of transportation impacts of projects within transit priority areas. OPR will submit the proposed changes to the Secretary of the Natural Resources Agency to certify and adopt. In August 2014 OPR released a report entitled "Updating Transportation Impacts Analysis in the CEQA Guidelines" for public comment. The report contained a new proposed Section 15064.3 to the *State CEQA Guidelines* as well as proposed amendments to Appendix F (Energy Conservation) and Appendix G (Initial Study Checklist) of the *State CEQA Guidelines*. The comment period closed November 21, 2014, and OPR is currently reviewing and considering comments to determine if revisions are needed. Upon adoption the new requirements will apply immediately within transit priority areas and high quality transit corridors and will apply statewide after January 1, 2016.

Regional and Local

Southern California Association of Governments' Regional Transportation Plan

The Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP) is a federal- and state-mandated transportation plan that envisions the future multi-modal transportation system for the region and provides the basic framework for coordinated, long-term investment in the regional transportation system over the RTP planning horizon of 2035. In compliance with state and federal requirements, SCAG prepares the Regional Transportation Improvement Program (RTIP) to implement projects and programs listed in the RTP. Updated every other year, the RTP contains a listing of all transportation projects proposed for the region over a six-year period. Transportation projects proposed in the region are required to be consistent with the RTP and included within the RTIP to be eligible for State or federal funding.

The 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted by SCAG on April 4, 2012. The 2012-2035 RTP/SCS identifies mobility as an important component of a much larger picture with added emphasis on sustainability and integrated planning. In addition, the RTP/SCS includes goals and policies that pertain to mobility, accessibility, safety, productivity of the transportation system, protection of the environment and energy efficiency, and land use and growth patterns that complement the State and region's transportation investments. An integral component of the RTP/SCS is a strong commitment to reduce emissions from transportation sources, in order to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the Clean Air Act. For further discussion of air quality and greenhouse gas emissions, see Section 4.2, *Air Quality*, and Section 4.6, *Greenhouse Gas Emissions*, respectively, of this EIR.

Los Angeles County Congestion Management Plan

Based on the approval of Proposition 111 in 1990 [Prop. 111, as approved by voters, Primary Elec. (June 5, 1990, amending Cal. Const., art. XVI, § 8], regulations require the preparation, implementation, and annual

updating of a Congestion Management Program (CMP) in each of California's urbanized counties. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants, and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process.

The purpose of the state-mandated CMP is to monitor roadway congestion and assess the overall performance of the region's transportation system. Based upon this assessment, the CMP contains specific strategies and identifies proposed improvements to reduce traffic congestion and improve the performance of a multi-modal transportation system. Examples of strategies include increased emphasis on public transportation and rideshare programs, mitigating the impacts of new development and better coordinating land use and transportation planning decisions.

None of the intersections directly serving the Project site are within the CMP system. The CMP intersections nearest to the Project site are the following: Valencia Boulevard and Magic Mountain Parkway within the City of Santa Clarita (City); Chiquito Canyon Road and State Route 126 (SR-126) within the County; and Railroad Avenue (formerly named San Fernando Road) and Lyons Avenue within the County. With respect to the mainline freeway, the CMP monitoring locations nearest to the Project site include the following: Interstate 5 (I-5) north of SR-126; I-5 north of State Route 14 (SR-14); and I-5 north of Osborne Street. The Project's potential for impacts to CMP facilities are discussed below.

Los Angeles County Draft General Plan 2035 (2014)

Chapter 7, Mobility Element

The Mobility Element provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Element assesses the challenges and constraints of the County transportation system and offers policy guidance to reach the County's long-term mobility goals. The Element includes two sub-elements, the Highway Plan and the Bicycle Master Plan. These plans establish policies for the roadway and bikeway systems in the unincorporated areas, which are coordinated with the networks in the 88 cities in the County. The General Plan also established a program to prepare community pedestrian plans, with guidelines and standards to promote walkability and connectivity throughout the unincorporated areas.

Existing Conditions

The following section describes the existing traffic conditions within the Project study area. Based in part upon consultation with the Los Angeles County DPW, the study area includes the roadways and intersections within the Project site as well as locations off-site where Project-generated traffic could potentially cause a significant impact; refer to **Figure 4.12-1**, *Project Location Study Area – Intersection Location Map*. This section includes a description of Project access, the study area's existing roadway system, existing traffic volumes and corresponding levels of service (LOS) as defined by the performance criteria outlined below under the Methodology, and the existing public and active transportation network. Further, the section includes discussion on future roadways near the Project site as proposed within the Los Angeles County Highway Plan and the Newhall Ranch Specific Plan.

Project Access

Regional access to the Project site is provided via I-5, located approximately 1.6 miles east of the Project site. Local access to the Project site is provided by a single entry from Pico Canyon Road, a County master-planned arterial road. Secondary emergency vehicle access will be provided by a connection to Whispering Oaks Road or Southern Oaks Drive via Tulip Grove Road and Verandah Court to the east.

Existing Roadway System[1]

The I-5 provides for regional travel in the north/south direction. Additional freeways in the Project area include SR-14, which provides access to the Antelope Valley, Interstate 210 (I-210) and Interstate 405 (I-405), which along with the I-5, provides access to the region south of the Newhall Pass. Regional access is also provided via SR-126, which runs north of the Project site in an east/west direction.

Per discussions with the Los Angeles County DPW, the following roadways were identified to be evaluated within this traffic analysis: Pico Canyon Road, Lyons Avenue, Poe Parkway, Stevenson Ranch Parkway, McBean Parkway, and The Old Road; refer to **Figure 4.12-2**, *Existing Roadway System*. Eleven study area intersection locations were identified to be evaluated in this traffic analysis; refer to **Table 4.12-1**, *Intersection Analysis Locations*, and **Figure 4.12-3**, *Existing Intersection Lane Configurations*. Of these eleven intersections, ten currently exist, while Intersection No. 251 ("A" Street and Pico Canyon Road) is a future Project improvement that has yet to be constructed.

Existing Traffic Volumes and Levels of Service[2]

The "existing conditions" (2014) average daily traffic (ADT) volumes for the study area are provided in **Figure 4.12-4**, *ADT Volumes (000s) – Existing Conditions*. The A.M. and P.M. peak hour turning movement volumes for the study intersections are illustrated in **Figure 4.12-5**, *A.M. Peak Hour Turning Movement Volumes Existing Conditions* and **Figure 4.12-6**, *P.M. Peak Hour Turning Movement Volumes Existing Conditions*. Traffic count data was collected throughout the study area during the critical A.M. and P.M. peak hours on various dates in February, March, and April 2014. The data was collected while local schools were in session. The results of the intersection capacity utilization (ICU) LOS analysis for the Project area intersections are shown in **Table 4.12-2**, *ICU and LOS Summary – Existing Conditions*. Table 4.12-2 indicates that the intersections are currently operating at LOS "B" or better. Please refer to the Methodology discussion below for the outlined performance criteria.

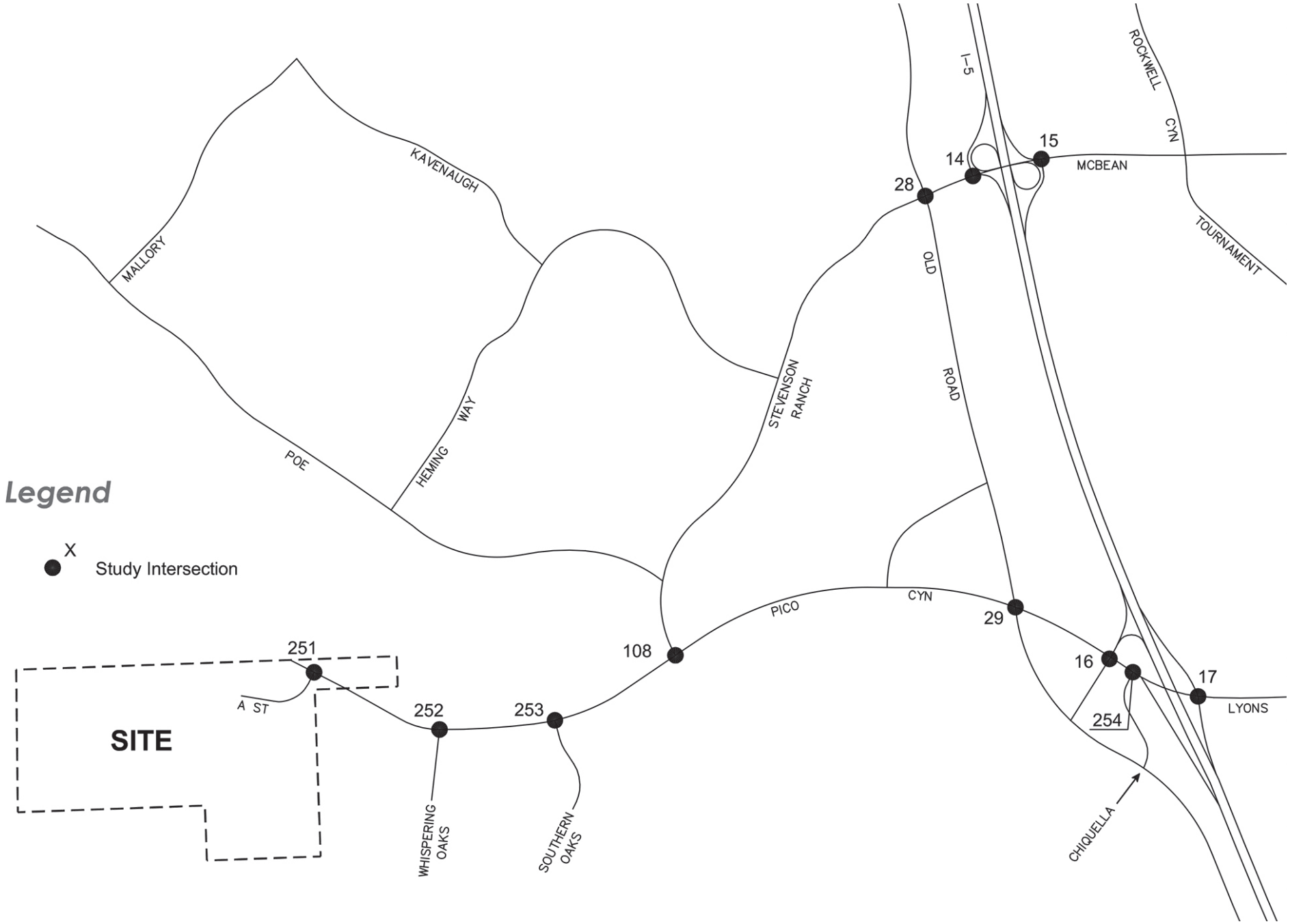
Public Transportation[3]

The City of Santa Clarita Transit (SCT) currently does not operate transit lines within close proximity (typically defined as ¼ mile) to the Project site. The nearest transit lines are Routes 5 and 6, which provide service between Newhall, Stevenson Ranch and Canyon Country (Shadow Pines and north of Sierra Highway) with stops at the Newhall and Santa Clarita (Soledad) Metrolink stations. The Newhall

[1] *Aidlin Hills VTTM 52796 Traffic Impact Analysis, prepared by Stantec Consulting Services, Inc., dated November 24, 2014.*

[2] *Ibid.*

[3] *Aidlin Hills VTTM 52796 Traffic Impact Analysis, prepared by Stantec Consulting Services, Inc., dated November 24, 2014.*



- PRELIMINARY WORKING DRAFT -

PCR

N

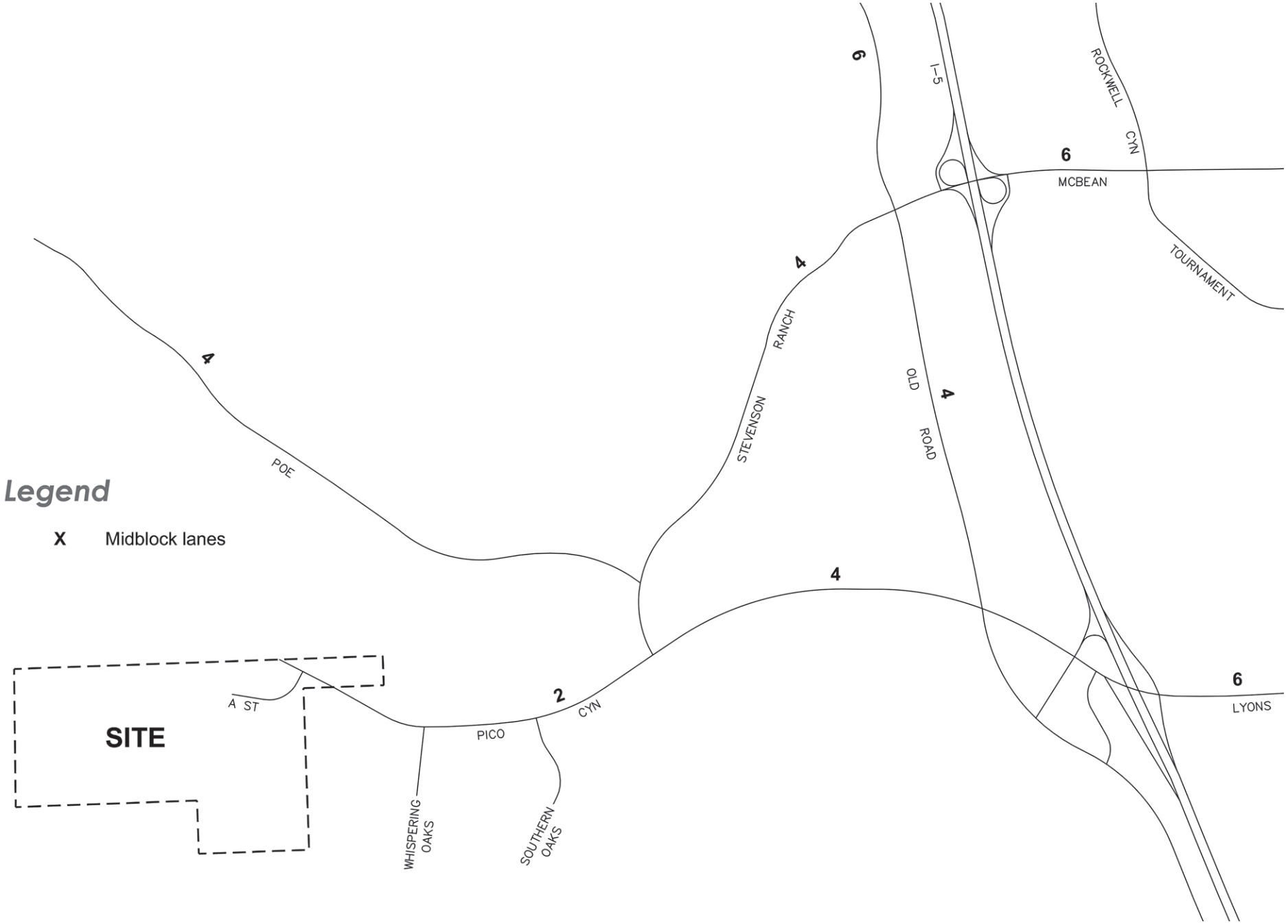
Project Location Study Area – Intersection Location Map

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-1



Existing Roadway System

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-2

PCR

- PRELIMINARY WORKING DRAFT -

Table 4.12-1

Intersection Analysis Locations

ID	Intersection Location	Jurisdiction
14	I-5 SB & Stevenson Ranch Parkway/McBean Parkway	County/Caltrans
15	I-5 NB Ramps & McBean Parkway	City/Caltrans
16	I-5 SB/Marriott & Pico Canyon Road/Lyons Avenue	County/Caltrans
17	I-5 NB Ramps & Lyons Avenue	City/Caltrans
28	The Old Road & Stevenson Ranch Parkway	County
29	The Old Road & Pico Canyon Road	County
108	Stevenson Ranch Parkway & Pico Canyon Road	County
251	"A" Street (Project Site) & Pico Canyon Road	County
252	Whispering Oaks & Pico Canyon Road	County
253	Southern Oaks & Pico Canyon Road	County
254	Chiquella Lane & Pico Canyon Road	County

Note: NB = northbound; SB = southbound; County = Los Angeles County; City = City of Santa Clarita.

Source: Aidlin Hills VTTM 52796 Traffic Impact Analysis, prepared by Stantec, dated November 24, 2014.

Table 4.12-2

ICU and LOS Summary – Existing Conditions

		AM Peak Hour		PM Peak Hour		
Intersection	Jurisdiction	ICU	LOS	ICU	LOS	Count Date
14. I-5 SB & Stevenson Ranch/McBean	County/Caltrans	.43	A	.54	A	3/13/2014
15. I-5 NB Ramps & McBean	City/Caltrans	.44	A	.52	A	3/11/2014
16. I-5 SB/Marriott & Pico/Lyons	County/Caltrans	.52	A	.63	B	3/11/2104
17. I-5 NB Ramps & Lyons	City/Caltrans	.55	A	.64	B	3/11/2014
28. The Old Road & Stevenson Ranch	County	.58	A	.69	B	3/5/2014
29. The Old Road & Pico Canyon	County	.44	A	.63	B	3/5/2014
108. Stevenson Ranch & Pico Canyon	County	.43	A	.56	A	2/25/2014
252. Whispering Oaks & Pico Canyon	County	.20	A	.18	A	4/15/2014
253. Southern Oaks & Pico Canyon	County	.31	A	.24	A	4/15/2014
254. Chiquella & Pico Canyon	County	.47	A	.53	A	4/15/2014

Source: Stantec Consulting Services, Inc., 2014

Station and Santa Clarita Station are located approximately 3.88 miles east and 4.77 miles northeast of the Project site, respectively. Additional routes, accessible from these routes, provide service to the greater Santa Clarita Valley area. Future bus transit routes are anticipated to be extended along Pico Canyon Road in

the Project vicinity by SCT as a part of a comprehensive valley-wide transit system.[4] The SCT Commuter Express offers express commuter bus travel to Downtown Los Angeles, Warner Center, Van Nuys, Century City and the Antelope Valley. Three Metrolink Antelope Valley Line stations exist within the City. This line travels between Lancaster and Union Station in Los Angeles. The City also operates approximately 20 supplemental school day service routes to serve students. The supplemental school day service routes provide transit service to various areas within the Santa Clarita Valley and are available on school days during peak morning and afternoon travel times.

Active Transportation[5]

Sidewalks are provided on both sides of Pico Canyon Road from approximately 500 feet east of the Project site to Stevenson Ranch Parkway. A short gap without a sidewalk of approximately 125 feet exists on the south side of Pico Canyon Road approaching Stevenson Ranch. East of Stevenson Ranch Parkway, sidewalks exist only on the north side of Pico Canyon Road. Bike lanes are not currently provided on Pico Canyon Road. However, within the County Bicycle Master Plan, Pico Canyon Road is designated to have Class II bike lanes in each direction. Stevenson Ranch Parkway currently has Class II bike lanes in each direction north of Poe Parkway, but currently no bike lanes exist on Stevenson Ranch Parkway south of Poe Parkway.

Future Roadway System[6]

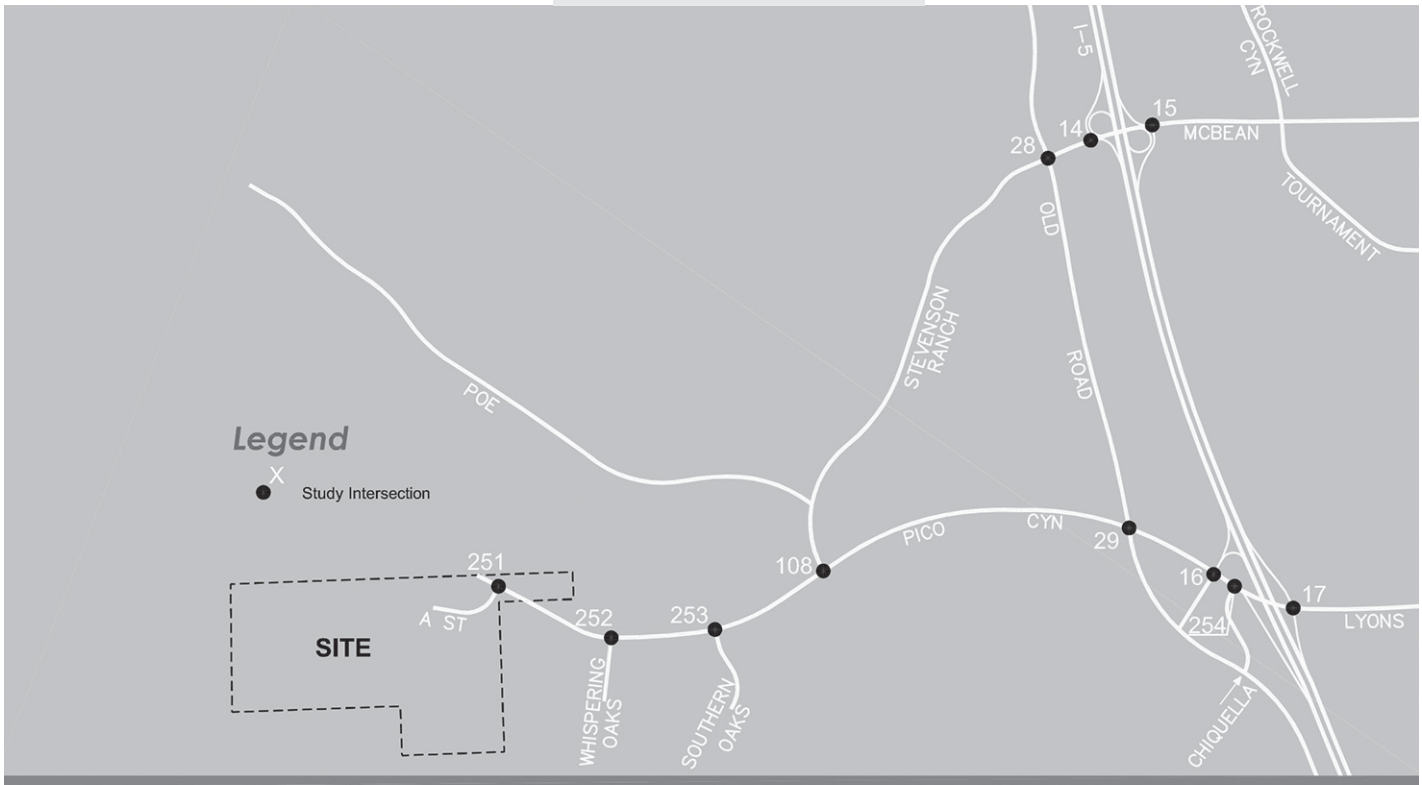
The Los Angeles County Highway Plan and the Newhall Ranch Specific Plan include future roadways near the Project site. The Project site is located along Pico Canyon Road, at the location where the road transitions from a fully-improved four-lane divided roadway east of the site (currently striped as two lanes in the vicinity) to a two-lane paved roadway to the west. The extension of Pico Canyon Road as a four-lane road west and north of the Project site to the future extension of Valencia Boulevard is designated on the County Highway Plan. However, there is no time frame identified for the construction of the roadway extension. As such, the extension of Pico Canyon Road west of the Project site is not assumed for this analysis. Other primary roadways (i.e., designated on the County Highway Plan) will be constructed northeast of the Project site. These roadways will be constructed in connection with the Homestead South, Mission Village, Landmark Village, Entrada South, and Legacy Village projects. The roads are included within the Westside Bridge & Thoroughfare District, which will provide the necessary funding for the roads.

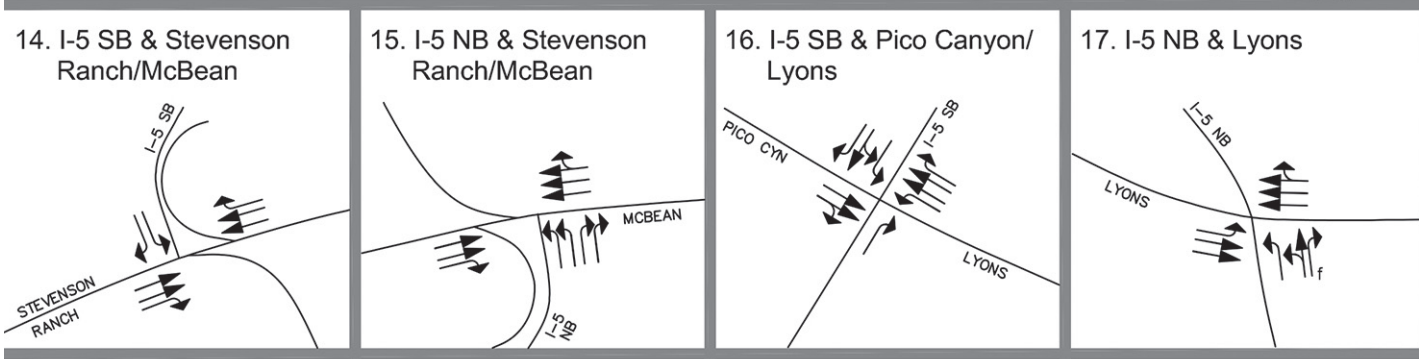
Long Canyon Road is planned to run in a generally north/south direction and will provide access to SR-126 to the north. Long Canyon Road is classified as a Secondary Highway in the adopted Newhall Ranch Specific Plan. Magic Mountain Parkway will run in a generally east/west direction and will provide access to the City as well as I-5 to the east. Magic Mountain Parkway is classified as a Secondary Highway in the Newhall Ranch Specific Plan. Valencia Boulevard, which will intersect with Magic Mountain Parkway at Long Canyon Road, will run in a generally east/west direction. In the Newhall Ranch Specific Plan, Valencia Boulevard is classified as a Secondary Highway.

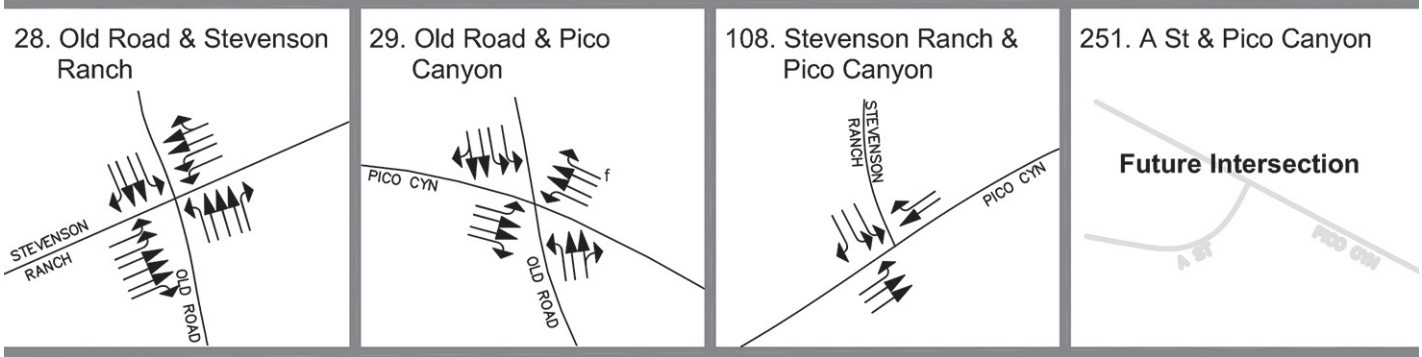
[4] *Stantec Consulting Services, Inc., 2014. Aidlin Hills VTTM 52796 Traffic Impact Analysis*

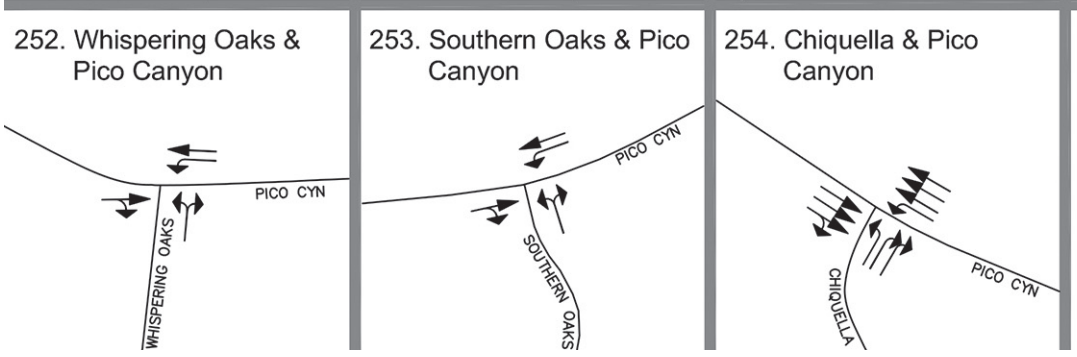
[5] *Ibid.*

[6] *Ibid.*









PCR

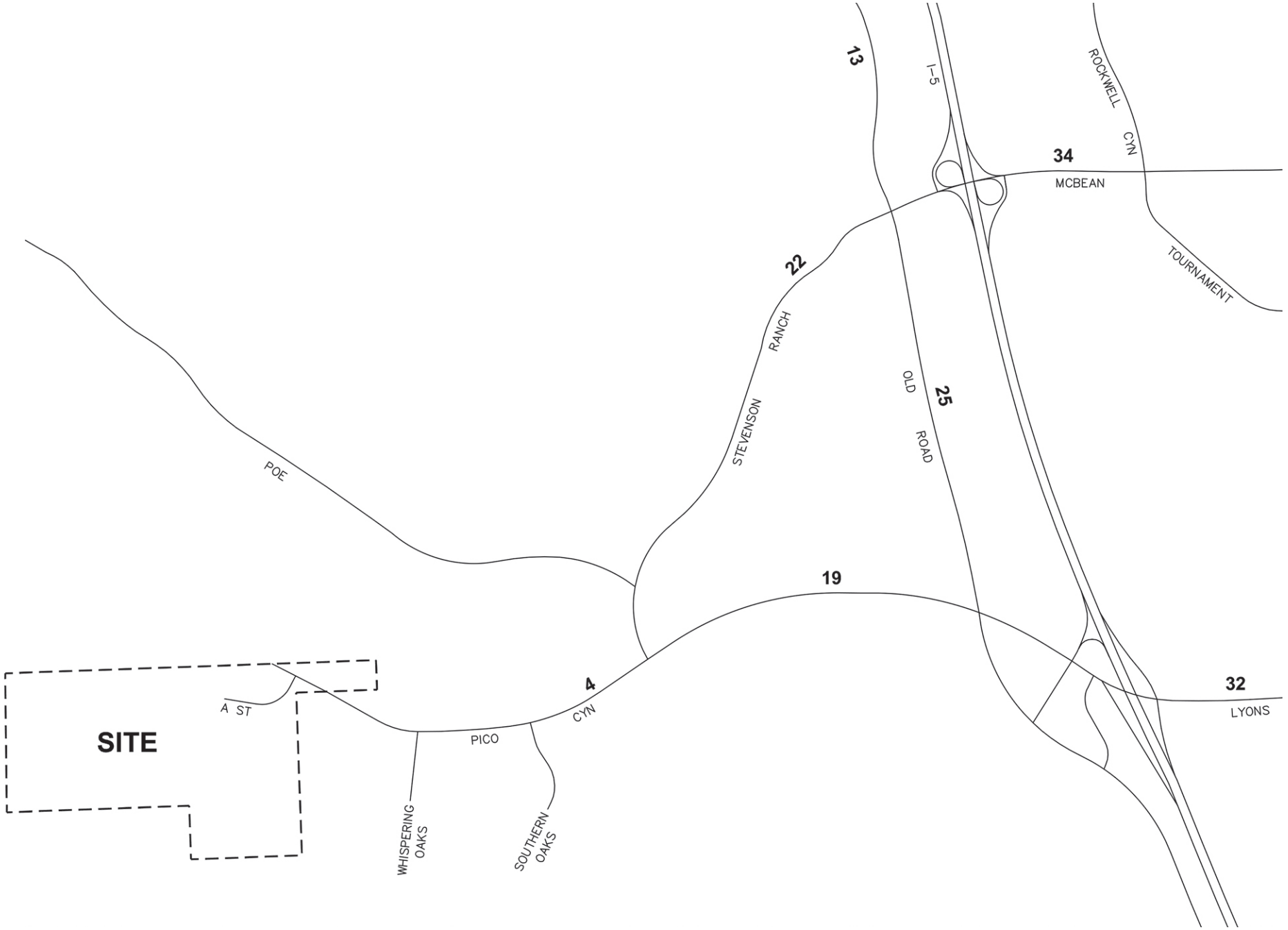
Existing Intersection Lane Configurations

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-3



- PRELIMINARY WORKING DRAFT -

PCR

N

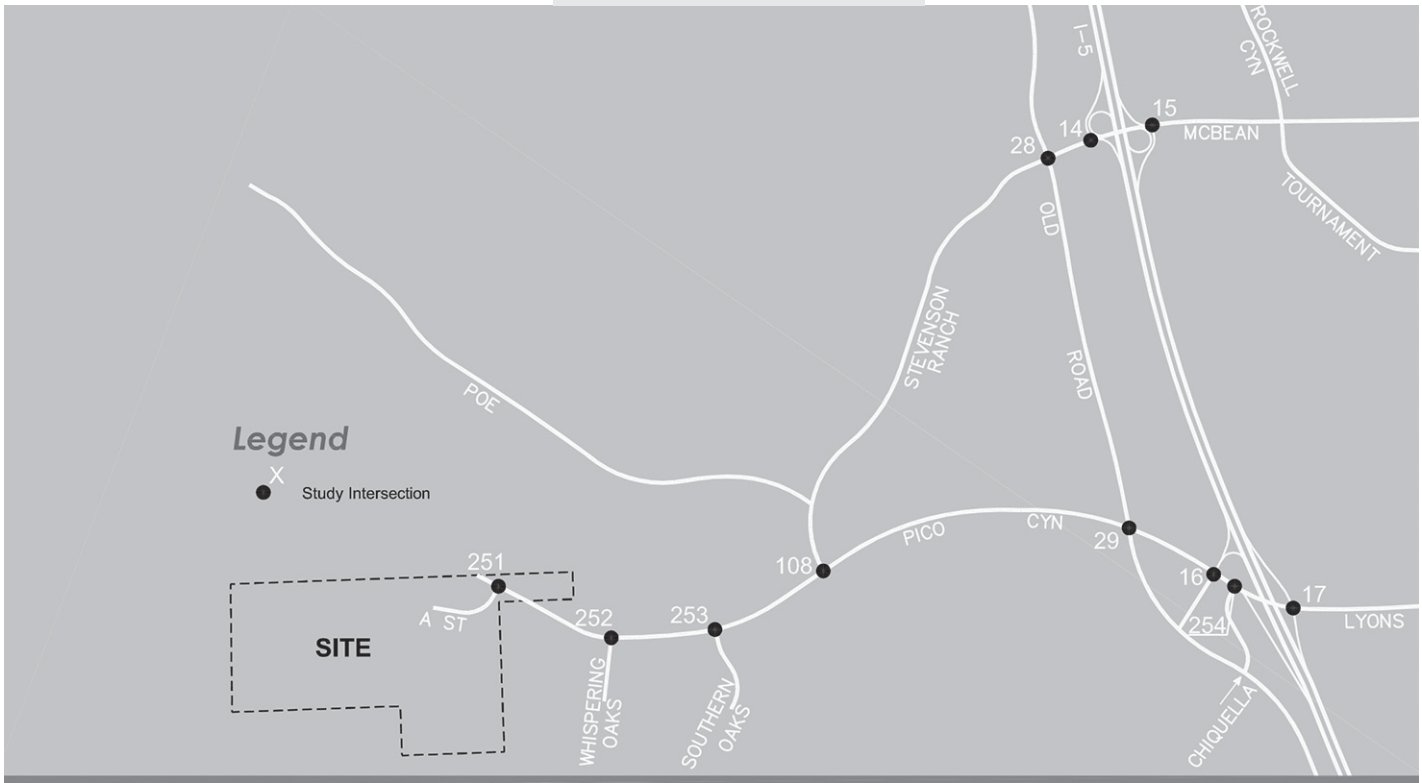
ADT Volumes (000s) – Existing Conditions

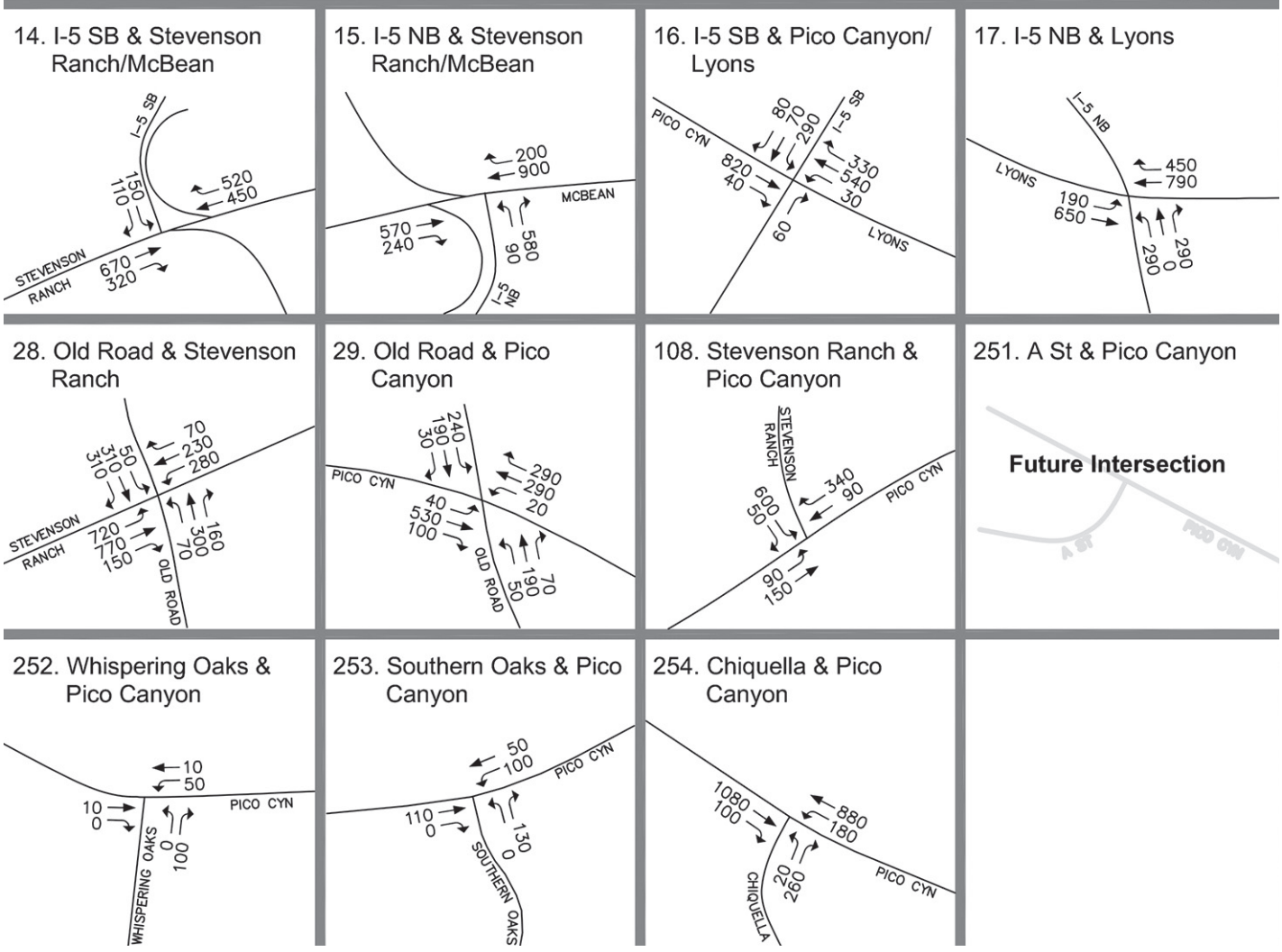
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-4





PCR

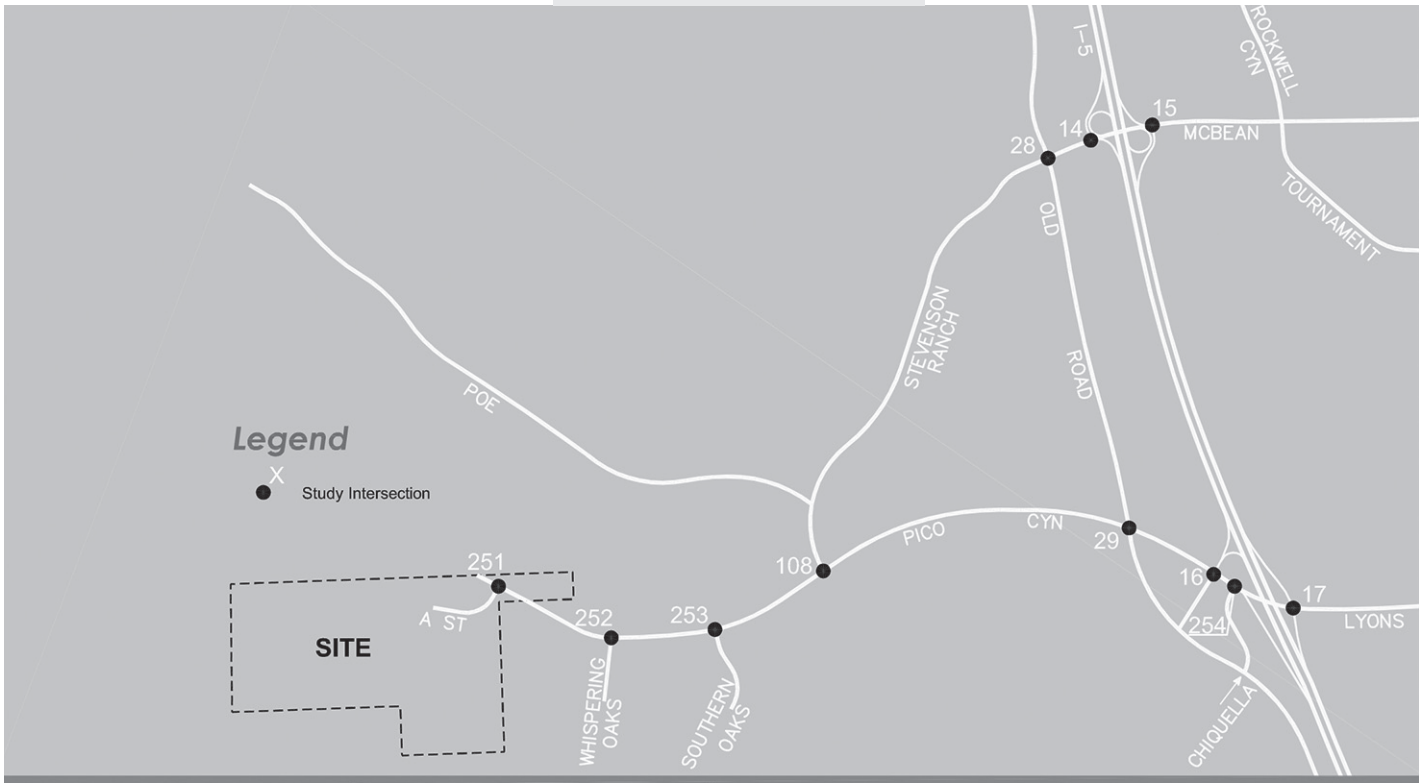
A.M. Peak Hour Turning Movement Volumes Existing Conditions

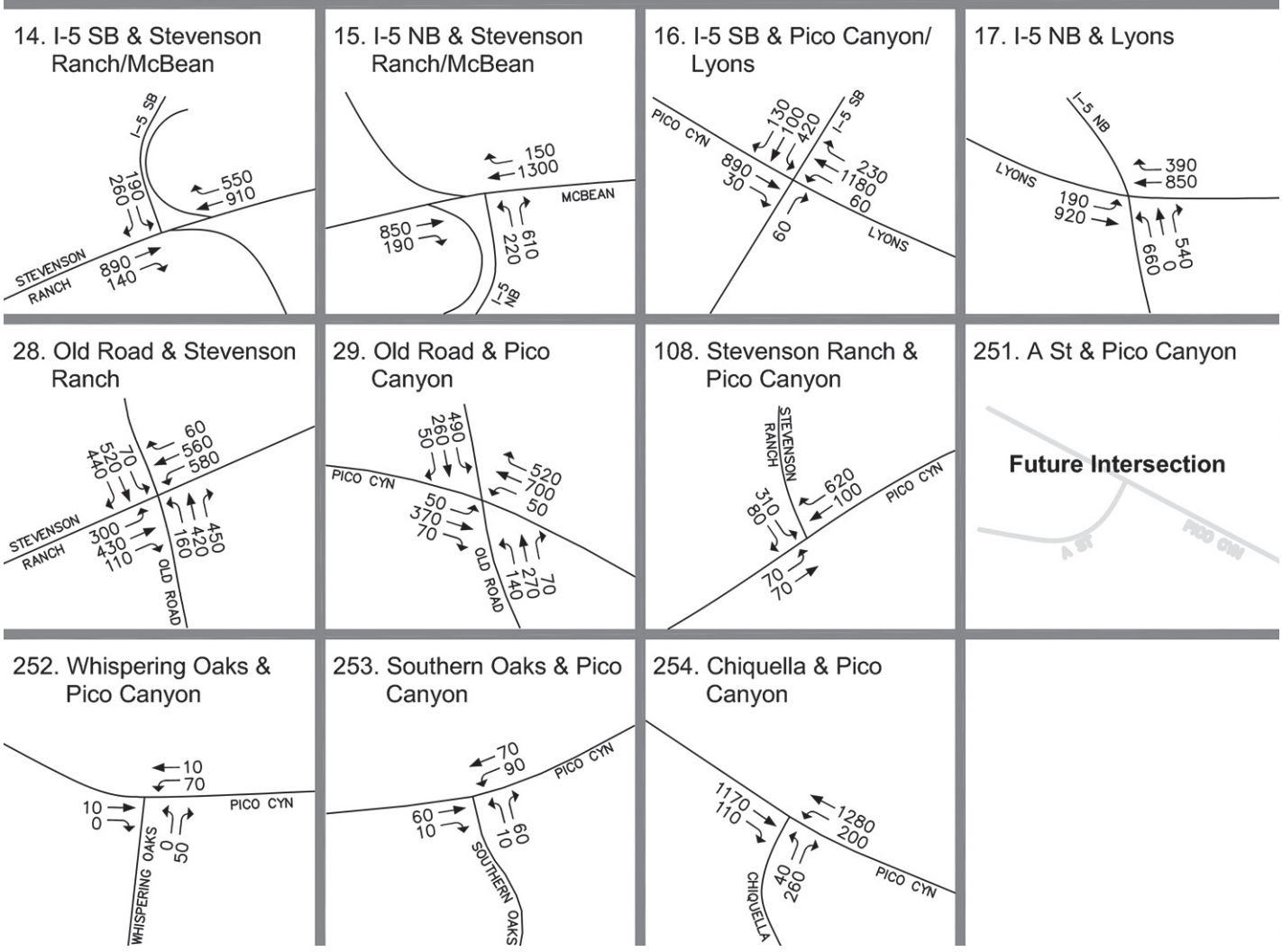
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-5





PCR

P.M. Peak Hour Turning Movement Volumes Existing Conditions

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-6

The I-5 is currently built to eight lanes in the Project area. Caltrans and the Metropolitan Transportation Authority (MTA) are in the process of expanding the freeway to provide additional capacity. In September 2009, Caltrans approved a Final Environmental Impact Report/Environmental Assessment (FEIR/EA) for the I-5 High Occupancy Vehicle (HOV)/Truck Lanes Project SR-14 to Parker Road. The project would add: (1) one HOV lane in each direction on I-5 from the SR-14 interchange north to Parker Road; two (2) truck climbing lanes in each direction from the SR-14 interchange to Calgrove Boulevard (northbound) and Pico Canyon Road and Lyons Avenue (southbound); and three (3) full auxiliary lanes within the northbound and southbound directions at several locations. In May 2013, Caltrans approved a Supplemental EIR/Environmental Reevaluation (SEIR/ER) for the improvement project that replaces the planned HOV lanes with high occupancy toll (HO/T) lanes. According to the SEIR/ER, Caltrans estimates completion of the truck lanes in 2014 and the HO/T lanes in 2018.

2. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the *State CEQA Guidelines* and the Los Angeles County Environmental Analysis Checklist provides thresholds of significance to determine whether a project would have a significant environmental impact regarding traffic and transportation. Based on the size and scope of the Project and the potential for traffic and transportation impacts, the threshold identified below is included for evaluation in this EIR.

Would the Project:

Threshold TR-1: 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? (refer to Impact Statement 4.12-1);

Threshold TR-2: Conflict with an applicable congestion management program (CMP), including, but not limited to, level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways? (refer to Impact Statement 4.12-2);

Threshold TR-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (refer to Impact Statement 4.12-3);

Threshold TR-4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (refer to Impact Statement 4.12-4);

Threshold TR-5: Result in inadequate emergency access? (refer to Impact Statement 4.12-5); and

Threshold TR-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (refer to Impact Statement 4.12-6).

Methodology

Construction Traffic

The analysis of construction traffic included a determination of the approximate number of construction-related trips (i.e., construction worker trips and construction truck trips) that would occur as a result of the Project. The impacts of these estimated numbers of trips on the existing roadway system were then qualitatively assessed.

Intersections

The Los Angeles County DPW has established guidelines for the analysis of traffic impacts based on the Project opening year and cumulative conditions. These guidelines specify that Project impacts are to be evaluated based on opening year traffic conditions. Cumulative impacts are evaluated based on opening year with related (i.e., cumulative) projects to determine the Project's fair share of future improvements.

The area to the northwest of the Project site is largely undeveloped. There are no related projects in the vicinity that will be constructed by the Project's buildout date of 2017. Therefore, the Los Angeles County DPW has specified that the Project impacts are to be identified based on an "existing plus Project" analysis.

There are several related projects in the vicinity of the Project site that are expected to be developed after the Project has been constructed. These related projects have their own buildout dates as much as 20 years in the future. Since these projects will not be constructed until after the Project is constructed, the Los Angeles County DPW has agreed that the approach for this Project's EIR cumulative analysis is to include each of the known related projects for a long-range buildout horizon in lieu of the standard opening year "existing plus Project plus related project" approach. Cumulative impacts will be identified for locations where traffic will exceed the specified impact threshold, and the Project's fair-share percentage of the necessary mitigation will be determined. This methodology is also consistent with the City guidelines.

Future land development is anticipated for the Santa Clarita Valley as quantified in the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). The SCVCTM includes a land use database prepared by the County and the City that is based on the approved General Plans of each jurisdiction. This database is regularly updated as specific projects are proposed and thus is a comprehensive listing of cumulative projects. In addition, the land use database has been updated based on the "One Valley, One Vision" (OVOV) Plan. Trips to and from the Santa Clarita Valley, as well as through-trips, are included in the forecasts. Regional growth, which is considered increased traffic volume occurring outside of the SCVCTM area, is incorporated into the model. Pending, recorded, and approved projects are incorporated into the long-range buildout/cumulative database. A listing of the known cumulative projects (i.e., "related projects") in the vicinity that have been included within the buildout/cumulative database is provided in **Table 4.12-3**, *Defined Related Projects Included in the Cumulative Database* and illustrated in **Figure 4.12-7**, *Related Projects Location Map*. These projects are planned to be built out by the year 2034.

Table 4.12-3

Defined Related Projects Included in the Cumulative Database

No.	Project	Description
1	Mission Village (TR 61105)	4,055 Residential Units; 1,555,100 sq. ft. Commercial Business Park/Office/Retail
2	Landmark Village (TR 53108)	1,444 Residential Units, 1,030,000 sq. ft. Commercial Office/Retail
3	Legacy Village (TR 61996)	3,457 Residential Units; 884,000 sq. ft. Commercial Office/Retail
4	Entrada South (VTTM 53295)	1,574 Residential Units; 730,000 sq. ft. Commercial Office/Retail
5	Homestead South (VTTM 060678)	3,617 Residential Units; 66,400 sq. ft. Commercial/ Retail; 900 student elementary school; 1,200 student middle school; 2,500 student high school
6	Entrada North (VTTM 071377)	1,510 Residential Units; 2,380,000 sq. ft. Commercial Office/Retail/Industrial
7	Potrero Village (VTTM 061911)	4,296 Residential Units; 250,000 sq. ft. Commercial Office/Retail
8	Homestead North	1,818 Residential Units, 1,250,000 sq. ft. Commercial Office/Retail
9	Valencia Commerce Center Phase III (PM 26363)	664,000 sq. ft. Commercial Industrial/Retail
10	Valencia Commerce Center Phase IV (TR 18108)	3,227,068 sq. ft. Commercial Business Park/Office/Industrial
11	Chiquita Canyon Landfill Expansion	Expansion of landfill operations by approximately 143 acres (net increase of approximately 600 trucks on peak day). Relocation of access roadway from SR-126 to Wolcott Way.
12	Tract 18654	30,000 sq. ft. Commercial Retail
13	Lyons Canyon Ranch (TR 53653)	95 Single Family Detached Residential Units and 95 Active Senior Units
14	UCLA Film Archives	250,000 sq. ft. Office/Archiving
15	Henry Mayo Newhall Memorial Hospital Master Plan	127,000 sq. ft. Hospital Expansion and 200,000 sq. ft. Medical Office Buildings (net increases)
16	Town Center Mall Expansion	203,500 sq. ft. Retail Commercial (Phase II) and 75,000 sq. ft. Retail Office (Phase III)
17	Valencia Sheraton	200 Room Hotel
18	Valencia Town Center Square	Mixed-use Residential, Retail & Office development consisting of 10 residential units and 40,000 sq. ft. of commercial retail and office

Sources: LA County DPW Traffic and Lighting Division (March 2014); LA County Dept. of Regional Planning GIS-NET3 (accessed March 2014); Mission Village Traffic Impact Analysis (March 2011); Castaic Bridge and Major Thoroughfare Construction Fee District Update Report (June 2009); discussions with City of Santa Clarita staff (April 2013), Homestead South Traffic Impact Analysis (December 2013).

Future condition traffic volumes are derived by the SCVCTM. A cumulative conditions analysis has been prepared for the 2034 buildout year of the related projects. The SCVCTM forecasts the complex interaction of vehicle trips between existing and future land uses. As such, the future condition forecasts reflect the change in existing travel patterns that occur due to changes in land use (e.g., the introduction of new development). The SCVCTM employs a process in which modeled future volumes are compared to modeled

existing condition volumes, and the net change from existing to future is then applied to the actual observed traffic count in a post-processing procedure. Post-processing is applied to each of the intersection's eleven possible turning movements for model verification while controlling to the net change calculated above at each of the intersection's four approaches (both entering and departure volumes). In that regard, the traffic forecasts presented within this analysis utilize existing traffic conditions as the foundation and build upon that foundation with the forecast change in volume (both increases and decreases) as derived by the model. As a result of changing traffic patterns, there are instances where specific turning movement volumes may go down in the future.

Regional Transportation System

The analysis of Project traffic in relation to the regional transportation system is conducted according to the CMP. The regional transportation system analysis determines if Project-generated trips would exceed the CMP thresholds, requiring additional analysis of CMP freeway or intersection locations.

Emergency Access

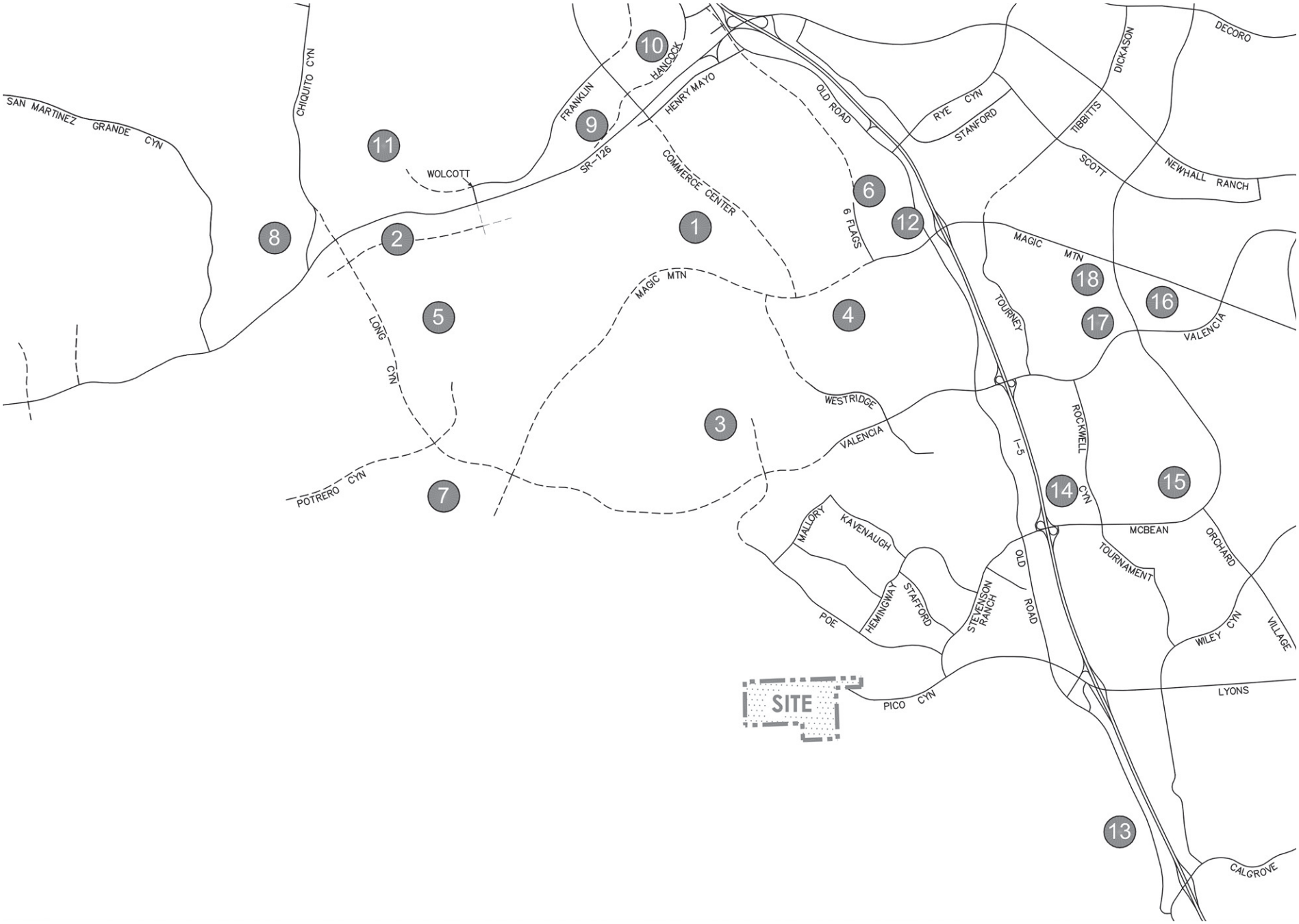
The analysis of emergency access first consists of a review of the County's policies for providing the minimum number of emergency access points to/from the Project site. Second, a determination is made whether the future traffic conditions in the immediate Project area and at the nearest adjacent intersections would be subject to adverse traffic conditions. Based on the future traffic conditions, a determination is made as to whether emergency access to/from the Project site would be adversely affected.

Performance Criteria[7]

For CEQA purposes, defined performance criteria are utilized to determine if a proposed project causes a significant impact. Performance criteria are based on two primary measures: (1) "capacity", which establishes the vehicle carrying ability of a roadway; and (2) "volume", which is either a traffic count (in the case of existing volumes) or a forecast for a future point in time. The ratio between the volume and the capacity gives a volume/capacity (V/C) ratio, and based on that V/C ratio, a corresponding LOS is defined. Traffic LOS is designated "A" through "F" with LOS "A" representing free flow conditions and LOS "F" representing severe traffic congestion. Traffic flow quality for each LOS is described in **Table 4.12-4**, *Level of Service Description – Arterial Roadways and Intersections*. As discussed under the Regulatory Framework section above, the status of the *State CEQA Guidelines* to be revised per SB 743 become effective in 2016, and the current analysis within this EIR is evaluated using LOS.

The V/C ranges listed for arterial roads and intersections within the study area are those used by the County and the City. Both the V/C ratio and the LOS are used in determining impact significance. Certain LOS values are deemed unacceptable, and increases in the V/C ratio which cause or contribute to the LOS being unacceptable are defined as a significant impact. Note that while the Caltrans guidelines for the preparation of traffic studies recommend the Highway Capacity Manual (HCM) method for the evaluation of State highway facilities, those guidelines do not include a threshold of significance criteria for the determination of a significant project impact. While the Caltrans guidelines do not identify specific impact criteria, due to differences between rural and urban areas of the State, as well as differences between the northern, central,

[7] *Aidlin Hills VTTM 52796 Traffic Impact Analysis, prepared by Stantec Consulting Services, Inc., dated November 24, 2014.*



- PRELIMINARY WORKING DRAFT -

PCR

N

Related Projects Location Map

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-7

This page intentionally blank.

Table 4.12-4

Level of Service Description – Arterial Roadways and Intersections

LOS	Traffic Flow Description	V/C or ICU
A	Minimal or no vehicle delay.	0.00 – 0.60
B	Slight delay to vehicles.	0.61 – 0.70
C	Moderate vehicle delays, traffic flow remains stable.	0.71 – 0.80
D	More extensive delays at intersections.	0.81 – 0.90
E	Long queues create lengthy delays.	0.91 – 1.00
F	Severe delays and congestion.	> 1.00

V/C = Volume to Capacity ratio
ICU = Intersection Capacity Utilization

Sources: HCM 2010, Congestion Management Program of Los Angeles County

and southern regions, the local Caltrans Districts will determine the impact criteria based on the appropriate requirements of that District. As such, the thresholds of significance criteria specified by the local agencies (i.e., Caltrans District 7, County of Los Angeles, City of Santa Clarita, and the LA County CMP) are utilized in this analysis.

In establishing V/C based performance criteria, there are certain items that need to be addressed to obtain suitable V/C estimates and to relate them to LOS. For instance, while ADT is a useful measure to show general levels of traffic and to provide data for other related aspects such as noise and air quality, highway congestion is largely a peak hour or peak period occurrence, and ADT does not reflect peak period conditions very effectively. As such, ADT is not used here as the basis for capacity evaluation. This evaluation instead focuses on those parts of the day when such congestion can occur, specifically the A.M. and P.M. peak hours.

For the arterial system, the peak hour is the accepted time period used for impact evaluation, and a number of techniques are available to establish suitable V/C ratios and define the corresponding LOS. These definitions and procedures are established by individual local jurisdictions, such as the County or the City, or by regional programs such as the CMP. The analysis of the arterial road system is based on intersection capacity, since this is the defining capacity limitation on an arterial highway system. There may be exceptions where certain facilities have long distances between signalized intersections. However, that is not the case within the traffic analysis study area here, and, as such, peak hour intersection performance is the most representative measure for evaluating the study area arterial road system.

The LOS for arterial roadway intersections are determined based on operating conditions during the A.M. and P.M. peak hours. For intersections, the ICU methodology is applied, providing a planning level basis for determining V/C and LOS. This methodology sums the V/C ratios for the critical movements of an intersection and is the preferred procedure for intersection analysis by the City and the County. The ICU methodology is generally compatible with the intersection capacity analysis methodology outlined in the HCM 2010. **Table 4.12-5**, *Arterial Intersection Performance Criteria*, summarizes the ICU calculation methodology and associated impact criteria for the study area arterial system. The County utilizes a variable

Table 4.12-5

Arterial Intersection Performance Criteria

V/C Calculation Methodology

Level of service to be based on peak hour intersection capacity utilization (ICU) values calculated using the following assumptions:

Saturation Flow Rates:

County Methodology:	1,600 vehicles/hour/lane for through lanes, right-turn lanes, and single left-turn lanes 2,880 vehicles/hour for dual left-turn lanes (total of both lanes)
City Methodology:	1,750 vehicles/hour/lane for all lanes
Clearance Interval:	0.10

Impact Thresholds

An intersection is considered to be significantly impacted if compared to the ICU in the no-project scenario, the ICU in the with-project scenario increases the ICU by the following:

	Pre-Project ICU	Project Increment
County Thresholds:	0.71 - 0.80 (LOS C)[1]	greater than or equal to 0.04
	0.81 - 0.90 (LOS D)	greater than or equal to 0.02
	0.91 or more (LOS E & F)	greater than or equal to 0.01
	With-Project ICU	**Project Increment**
City Thresholds:	0.81 - 0.90 (LOS D)	greater than or equal to 0.02
	0.91 or more (LOS E & F)	greater than or equal to 0.01

Abbreviations:
V/C – Volume/Capacity Ratio
LOS – Level of Service
ICU – Intersection Capacity Utilization
Note: The County guidelines do not address situations where pre-project conditions are less than 0.71. In that situation, County staff has interpreted the guidelines to mean that an increase resulting in a with-project condition of 0.75 or more is considered significant. The interpretation is based on the following scenario, which is addressed by the guidelines: 0.71 (pre-project) + 0.04 (project increment) = 0.75 and is a significant impact

Source: Stantec Consulting Services, Inc., 2014

scale of ICU impact amounts that are based on the pre-project LOS. As shown in Table 4.12-5, the higher the pre-project LOS, the lower the threshold for determining a significant impact. For long-range planning purposes, when a specific project increment is not applicable, LOS "D" (ICU not to exceed 0.90) is a commonly accepted target LOS for the design of future intersections, as well as for existing intersections. The City strives to maintain LOS "D" for existing and future conditions. However, several intersections in both the City and the County have been identified as operating at LOS "E" for General Plan Buildout Conditions as part of the General Plan/Area Plan update.

Project Design Features

There are no specific Project Design Features (PDFs) that relate to potential traffic and transportation impacts.

Analysis of Project Impacts

Circulation System

Threshold TR-1: Would the Project 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?

Impact Statement 4.12-1: *Implementation of the Project would contribute traffic to the roadway network during construction and operational activities which could result in potentially significant traffic impacts. Potentially significant construction and operational traffic impacts would be reduced to a less than significant level with implementation of the prescribed mitigation measures.*

Construction

The number of construction workers and construction equipment would vary throughout the construction process. It is estimated that during Project construction, approximately 25 to 100 construction workers would be arriving on-site per day, generating approximately 50 to 200 worker trips per day (25 to 100 inbound and 25 to 100 outbound). A conservative assumption is made that each employee would drive to and from the Project site alone each day. The construction workforce would likely be generated from all parts of the County and is assumed to arrive and depart from all directions. Construction traffic generally occurs prior to the peak period (i.e., 7:00 A.M. – 9:00 A.M. and 4:00 P.M. – 6:00 P.M.). Consistent with the typical construction work day, most employees would arrive to the Project site between 6:30 A.M. and 7:00 A.M. for daily meetings and planning purposes (noting that construction equipment would not be utilized until after 7:00 A.M.). Most workers would be expected to leave the Project site between 3:30 P.M. and 4:00 P.M., although some could leave during the P.M. peak traffic hour. Regardless of the timing during the P.M. hour, the construction employee trips would be short-term and in consideration of the number of potential trips (less than 50 to 200), would not substantially affect the performance of the circulation system during peak traffic periods. Further, the number of employee construction trips would be less than the Project, which is described below. Also, parking for employees and non-employee vehicles can be accommodated within the construction area of the Project and not on public streets. A project construction schedule will be made available to the local school district upon request.

The Project grading plan proposes that grading quantities would balance and that no import or export of soil would be required. As such, haul truck trips associated with export/import soils would be limited, if any. Heavy equipment to be utilized on-site during construction include, but is not limited to: flat beds, dozers, scrapers, graders, small utility tractors, track hoes, dump trucks, cement trucks, pavers, rubber-tired compactors, rollers, water trucks, rolling container trucks and bobcats. Heavy equipment would be delivered and removed from the Project site throughout the construction phase. As most heavy equipment is typically not authorized to be driven on a public roadway, most of the equipment would be delivered and

removed from the Project site via large flatbed trucks. It is anticipated that delivery of heavy equipment would not occur on a daily basis, but rather periodically throughout the construction phase based on need. As such, traffic impacts related to the delivery of heavy equipment and materials would be less than significant.

Project-related construction traffic and activities including worker travel and the delivery of construction materials and vehicles could potentially affect school traffic, pedestrian routes, or transportation safety in the Project area. Most notably, Pico Canyon Elementary School is located at 25255 Pico Canyon Road, Stevenson Ranch, approximately 0.8 miles east of the Project site.

Construction vehicles traveling to and from the Project site would travel along Pico Canyon Road to access the Project site. Construction traffic may impact existing and proposed school traffic traveling on Pico Canyon Road. Section 4.11, *Public Services,* discusses potential construction related traffic impacts to school routes and access. As discussed in Section 4.11, potentially significant construction related traffic noise impacts regarding school routes and access would be reduced to a less than significant level with implementation of the prescribed mitigation measures (Mitigation Measures 4.11-1 to 4.11-4). The prescribed mitigation measures include on-going communication with school administration; presence of crossing guards and usage of temporary traffic control, signage, and/or flaggers; and the limitation of construction vehicles hauling past the school, except when school is not in session. To ensure that construction-related traffic does not adversely impact pedestrian safety, including school and non-school routes, Mitigation Measure 4.12-1 has been prescribed for the Project. Implementation of the prescribed mitigation measures would ensure that potentially significant construction traffic-related impacts are reduced to a less than significant level. This would be done by requiring construction period traffic management, which would allow for construction traffic to blend with existing pedestrian and vehicular traffic patterns with minimal disruption.

Mitigation Measures

Refer to Mitigation Measures 4.11-1 and 4.11-4 in Section 4.11, *Public Services*, in this EIR. The following mitigation measure is also prescribed.

Mitigation Measure 4.12-1 Prior to the issuance of an encroachment permit within the public right-of-way, the Permittee, in coordination with the Los Angeles County DPW, shall devise a Traffic Control Plan to be implemented during construction of the Project. The Traffic Control Plan shall identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of construction activities associated with the Project improvements for Pico Canyon Road. The Traffic Control Plan shall be subject to final approval by the Los Angeles County DPW.

Operation

Project Trip Generation

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Trip generation rates used to estimate Project traffic and a summary of the Project's trip generation are shown on **Table 4.12-6**, *Land Use and Trip Generation Summary*. The trip generation rates are based upon data collected by the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012*. As shown in Table 4.12-6, the Project would generate approximately 971 average daily trip-ends (i.e., the

Table 4.12-6

Land Use and Trip Generation Summary

Category	Amount	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Tripends
Trip Generation									
Single Family Detached	102	DU	19	57	76	64	38	102	971
Trip Rates									
Single Family Detached (ITE 210)		DU	.19	.56	.75	.63	.37	1.00	9.52

DU = Dwelling unit

Source: "Trip Generation Manual, 9th Edition", Institute of Transportation Engineers

total trips entering and leaving a location) with approximately 76 trip-ends during the A.M. peak hour and 102 trip-ends during the P.M. peak hour.

Project Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the routes where the project traffic would distribute. The geographic distribution of Project-generated trips was derived by the SCVCTM, which utilizes a trip distribution function to derive the distribution of vehicle trips. Production and attraction trip data is generated by the model based on five separate trip purposes. Trip distribution patterns are then derived by the model. As a final step, the model assigns these trips to the roadway network based on the derived distribution patterns. Illustrations of the Project's trip distribution patterns based on the SCVCTM select zone run are provided in **Figure 4.12-8**, *Project Trip Distribution*. As shown on Figure 4.12-8, approximately 52 percent of the Project's traffic is distributed to Stevenson Ranch Parkway northeast of the Project site, while 48 percent is distributed to Pico Canyon Road east of Stevenson Ranch Parkway. Further, approximately 34 percent of the Project's traffic is distributed to I-5 (18 percent to the north and 16 percent to the south).

Project Traffic Forecasts

The Project generated ADT volumes are provided in **Figure 4.12-9**, *ADT Volumes – Project Only*. The corresponding Project generated turning movement volumes for the A.M. and P.M. peak hours are provided in **Figure 4.12-10**, *A.M. Peak Hour Volumes – Project* and **Figure 4.12-11**, *P.M. Peak Hour Volumes – Project Only*, respectively. The Project is projected to add less than 200 ADT and 12 peak hour trips (per direction; AM peak hour trips with 10 northbound and 9 southbound; PM peak hour trips with 11 northbound and 10 southbound) to the I-5 freeway.

Existing plus Project Conditions

Project occupancy is expected by 2017. However, as discussed above, no new development is expected within the study area by 2017. As such, per the County of Los Angeles DPW, the "existing conditions" are utilized to evaluate the direct project impacts. The "existing plus Project" conditions ADT volumes are provided in **Figure 4.12-12**, *ADT Volumes (000s) – Existing Plus Project*. The corresponding "existing plus

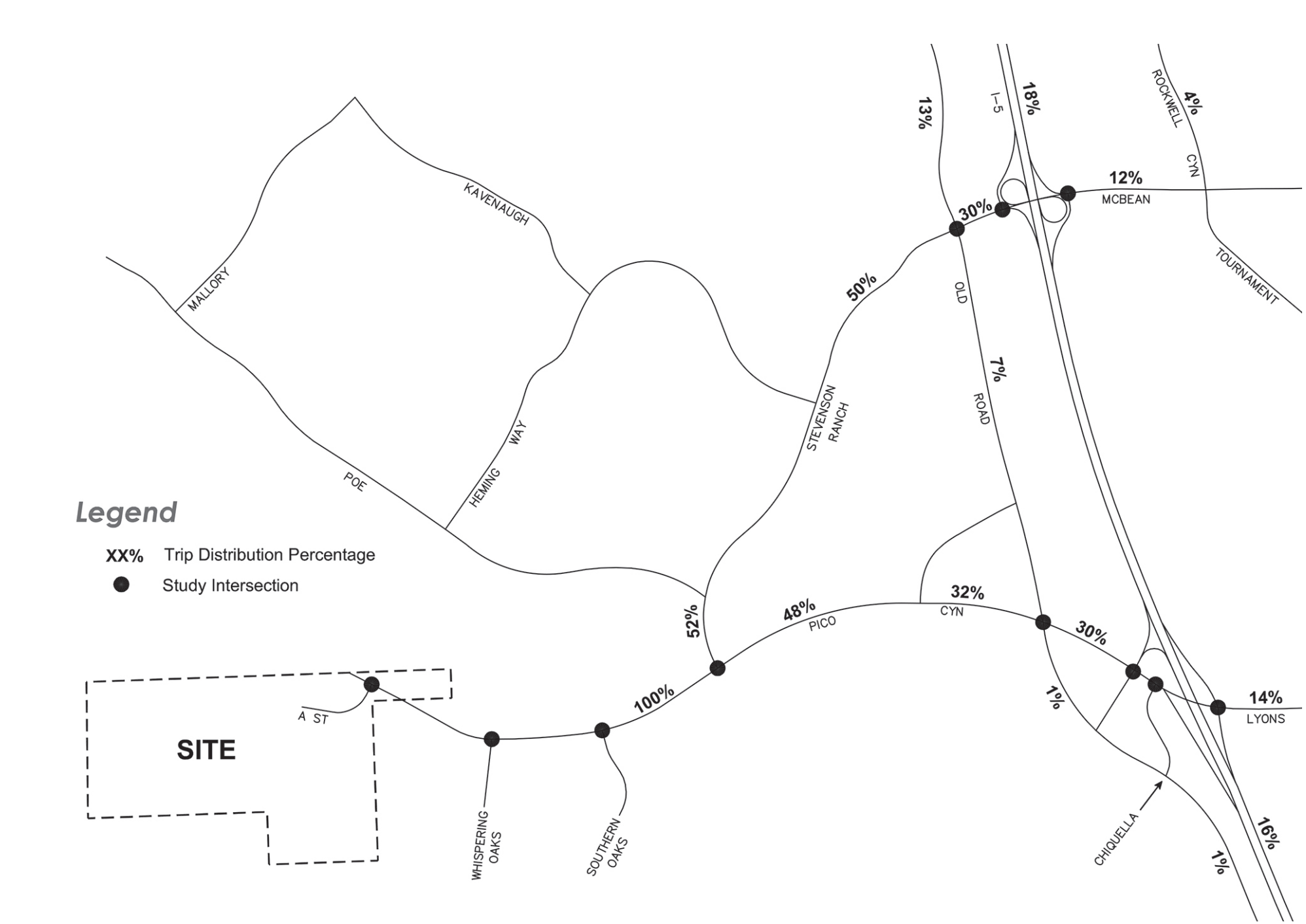
Project" peak hour turning movement volumes for the A.M. and P.M. peak hours are provided in **Figure 4.12-13**, *A.M. Peak Hour Turning Movement Volumes Existing-plus-Project* and **Figure 4.12-14**, *P.M. Peak Hour Turning Movement Volumes Existing-plus-Project*. The peak hour ICU values that correspond with the existing traffic conditions are included within **Table 4.12-7**, *ICU Summary – Existing Conditions with and without Project*. Table 4.12-7 provides a comparison between the "existing conditions" and the "existing plus Project" conditions. As shown in Table 4.12-7, the study intersections are forecast to operate at LOS "C "or better under the "existing plus Project" conditions. The Project has no significant impacts on the study intersections.

Four study intersections are under joint Caltrans jurisdiction. Caltrans uses the HCM average intersection delay methodology for analyzing intersections and determining Project impacts. Caltrans strives to maintain LOS "C." The Caltrans intersections would operate at LOS "C" or better with the Project under existing conditions based on the HCM delay methodology.

Cumulative Conditions

As noted above, the existing volumes are utilized to evaluate Project impacts. Cumulative impacts are based on buildout conditions for the related projects listed in Table 4.12-3. Year 2034 cumulative conditions (i.e., with approved, planned, and pending projects reasonably anticipated to be in place within this horizon) have been derived as previously discussed under the Methodology above.

Year 2034 cumulative conditions ADT volumes for the study area for the no-project condition ("cumulative conditions without Project") are provided in **Figure 4.12-15**, *ADT Volumes (000s) – Cumulative Conditions without Project (2034)*. The corresponding "cumulative conditions without Project" peak hour turning movement volumes for the A.M. and P.M. peak hours are provided in **Figure 4.12-16**, *A.M. Peak Hour Turning Movement Volumes Cumulative Conditions without Project (2034)* and **Figure 4.12-17**, *P.M. Peak Hour Turning Movement Volumes Cumulative Conditions without Project (2034)***.** Year 2034 cumulative conditions ADT volumes for the study area for the with-project condition ("cumulative conditions with Project") are provided in **Figure 4.12-18**, *ADT Volumes (000s) – Cumulative Conditions with Project (2034)*. The corresponding "cumulative conditions with Project" peak hour turning movement volumes for the A.M. and P.M. peak hours are provided are provided in **Figure 4.12-19**, *A.M. Peak Hour Turning Movement Volumes Cumulative Conditions with Project (2034)* and **Figure 4.12-20**, *P.M. Peak Hour Turning Movement Volumes Cumulative Conditions with Project (2034)***.** The peak hour ICU values that correspond with the 2034 cumulative conditions traffic forecasts are included within **Table 4.12-8**, *ICU Summary – Cumulative Conditions (2034) with and without Project.* Table 4.12-8 provides a comparison between the "cumulative conditions without Project" and "cumulative conditions with Project". As shown in Table 4.12-8, the Project would contribute to a cumulative impact at the intersection of The Old Road and Stevenson Ranch Parkway during the P.M. peak hour by increasing LOS "E" conditions by 0.01. Table 4.12-8 indicates that the Project does not contribute to a significant impact on the other study intersections under the 2034 cumulative conditions. To address this potentially significant impact, Mitigation Measure 4.12-2 has been prescribed. This mitigation requires the permittee to be responsible for the payment of a pro-rata share contribution of four percent to convert the shared through/right-turn lane to one through lane and one right-turn lane on the east approach of the intersection of The Old Road and Stevenson Ranch Parkway, resulting in a total of two left-turn lanes, two through lanes, and one right-turn lane. The mitigation further requires an overlap phase for the westbound right turn. Mitigation Measure 4.12-2 can be implemented without widening the roadway. The Project's fair-share contribution to the mitigation is four percent based on the Project's share of the increase in traffic at this location. This improvement would result in LOS "D" during



- PRELIMINARY WORKING DRAFT -

PCR

N

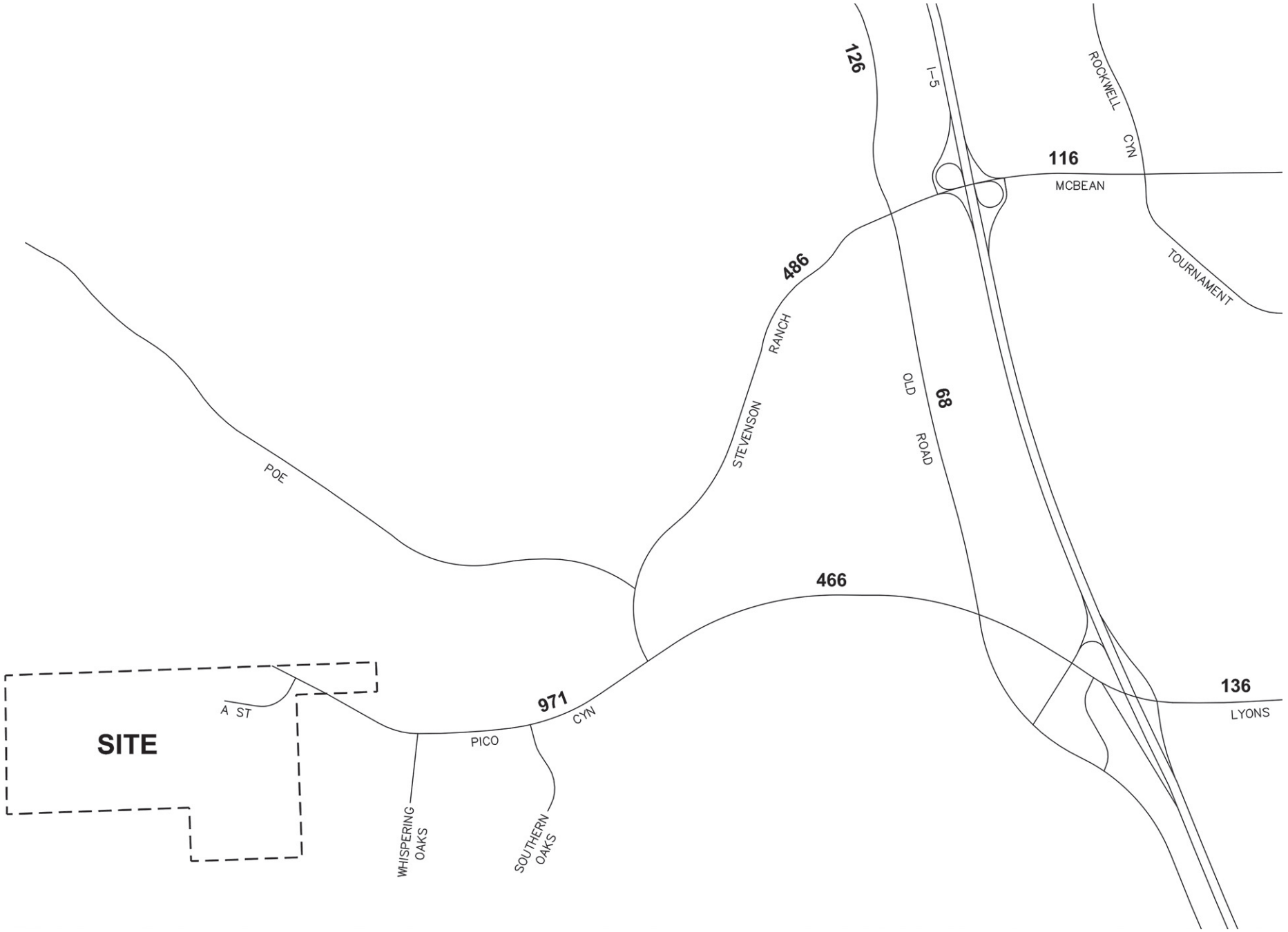
Project Trip Distribution

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-8



- PRELIMINARY WORKING DRAFT -

PCR

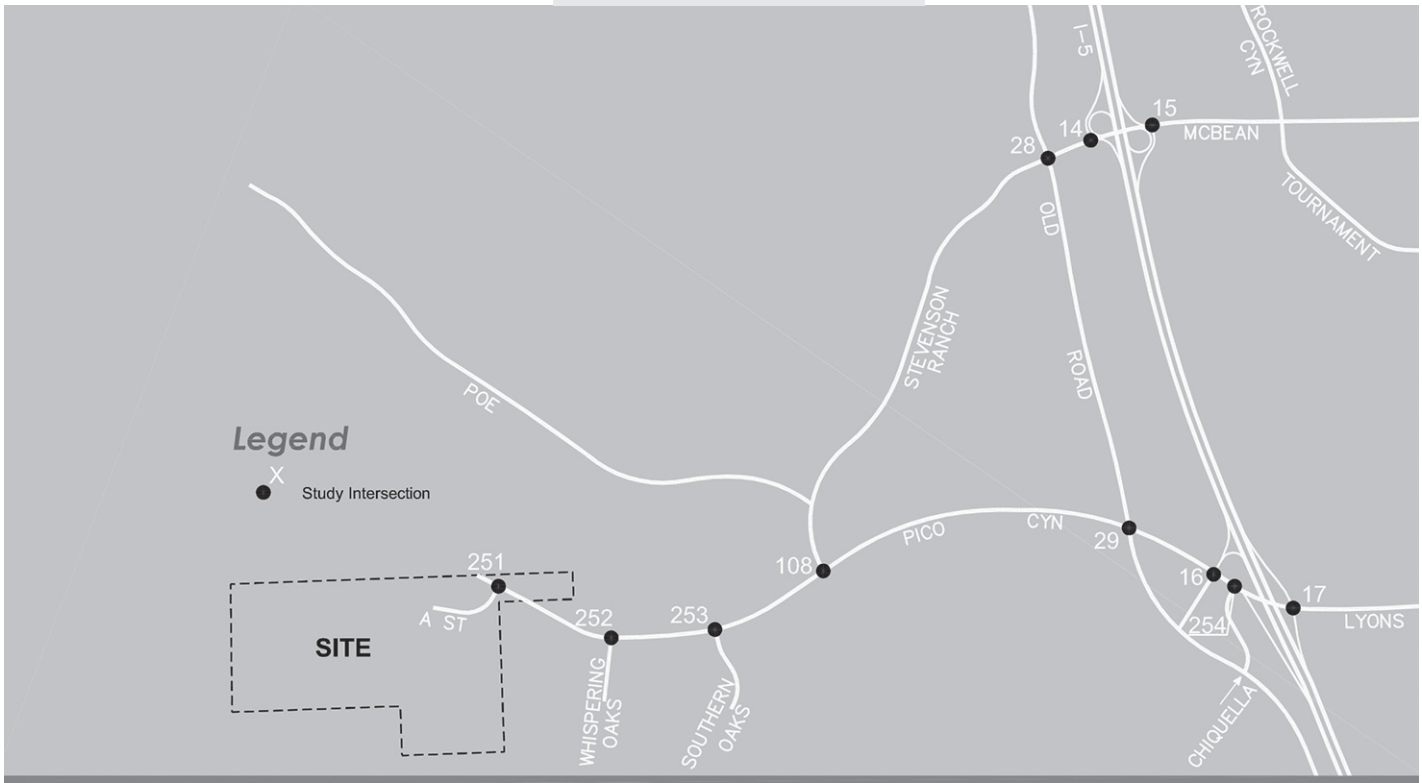
ADT Volumes – Project Only

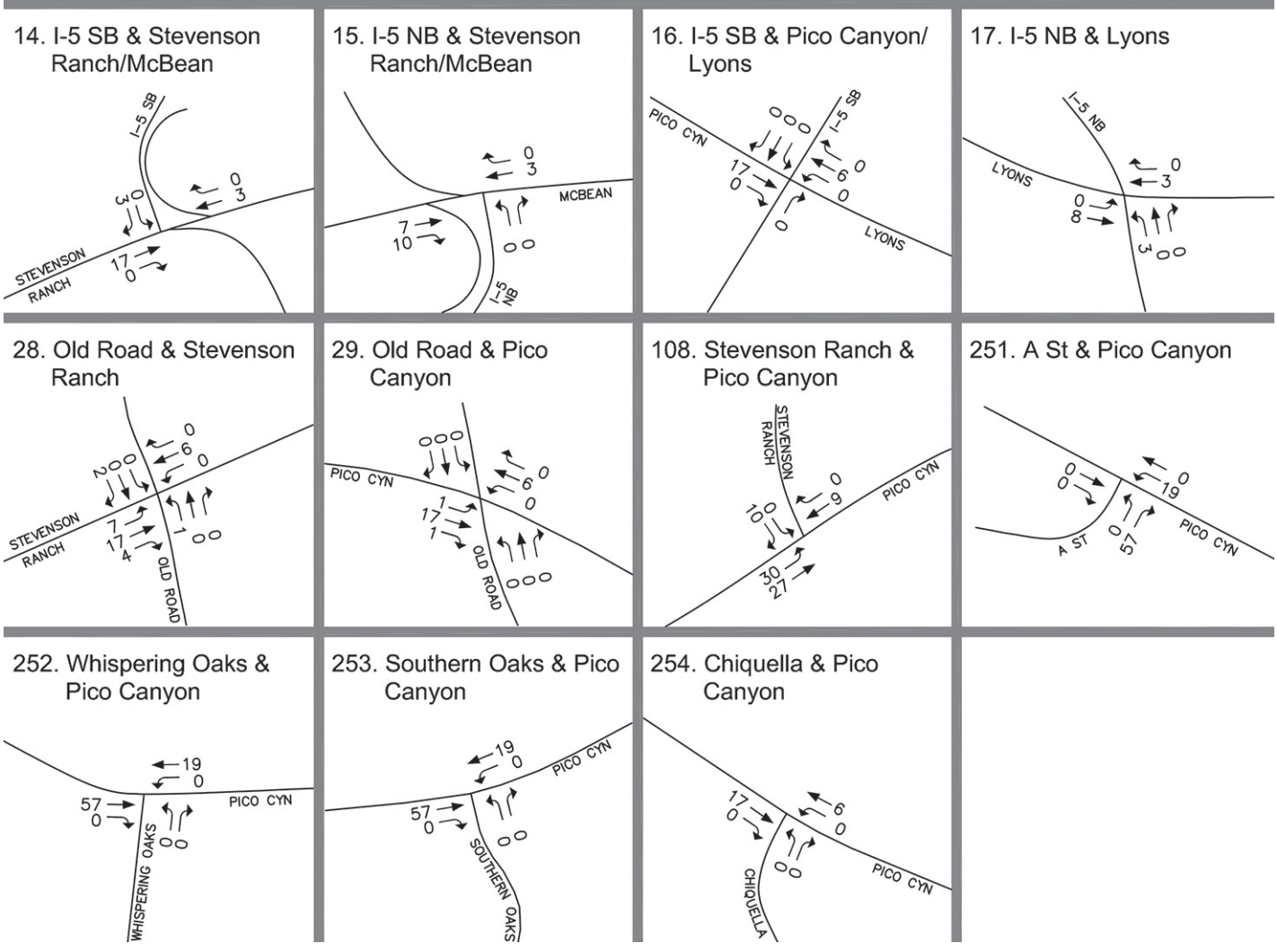
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-9





PCR

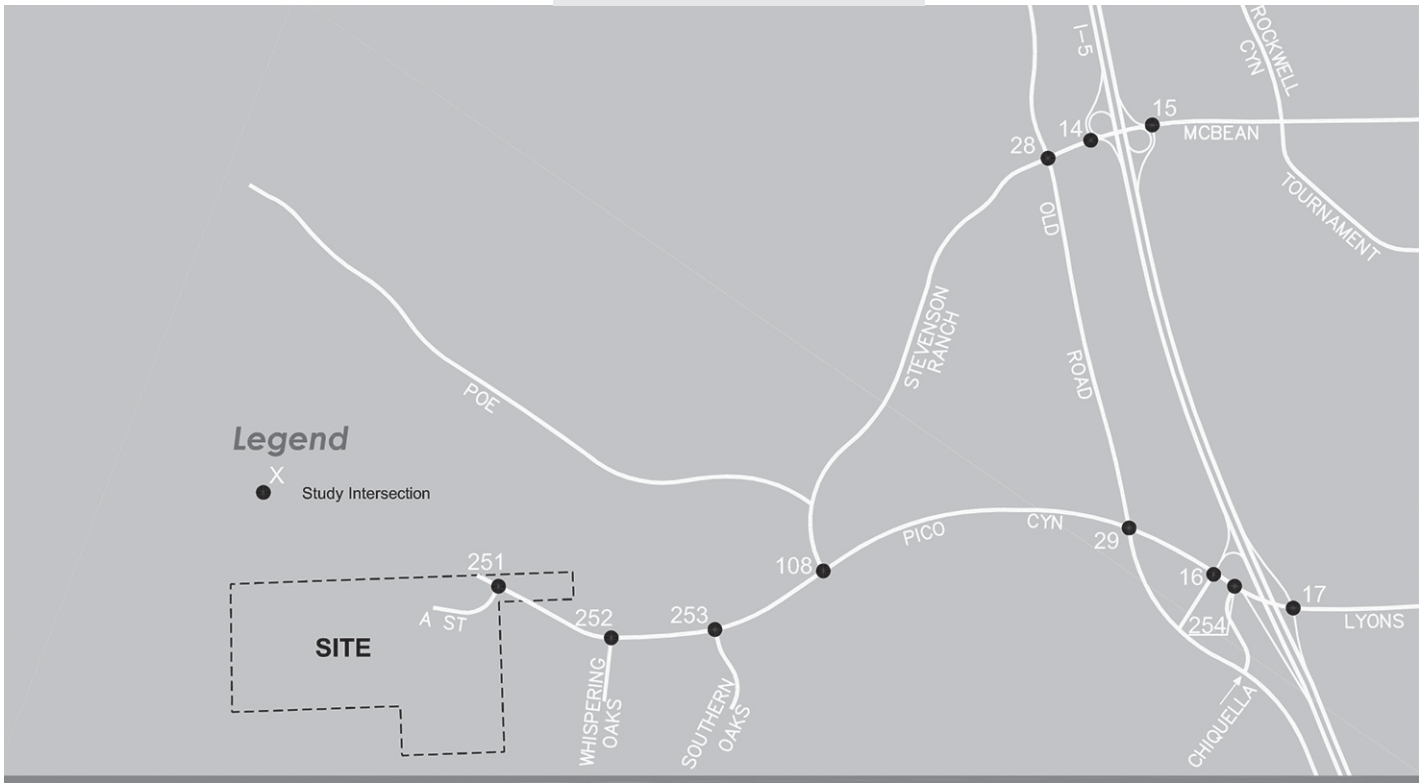
A.M. Peak Hour Volumes – Project Only

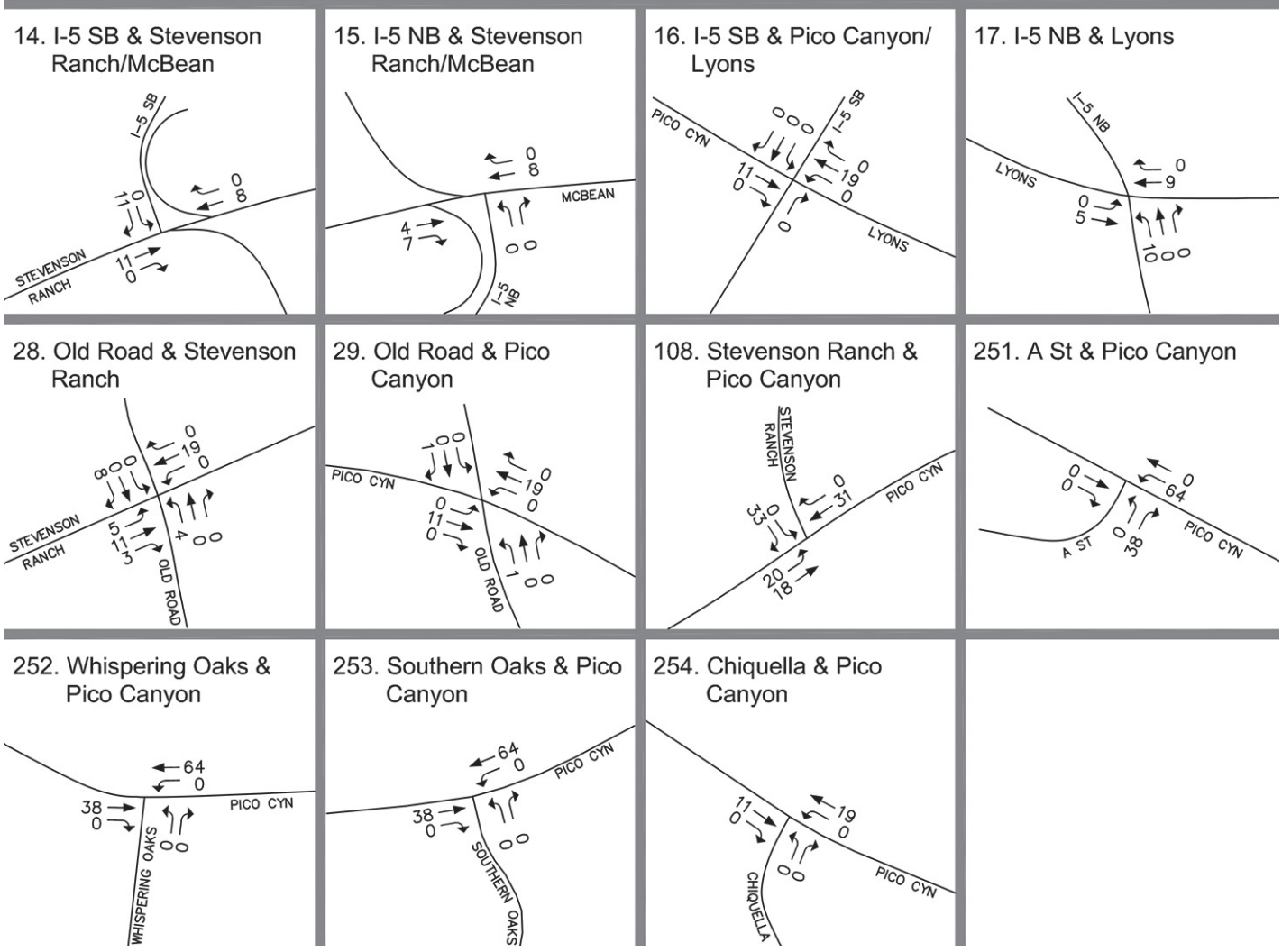
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-10





PCR

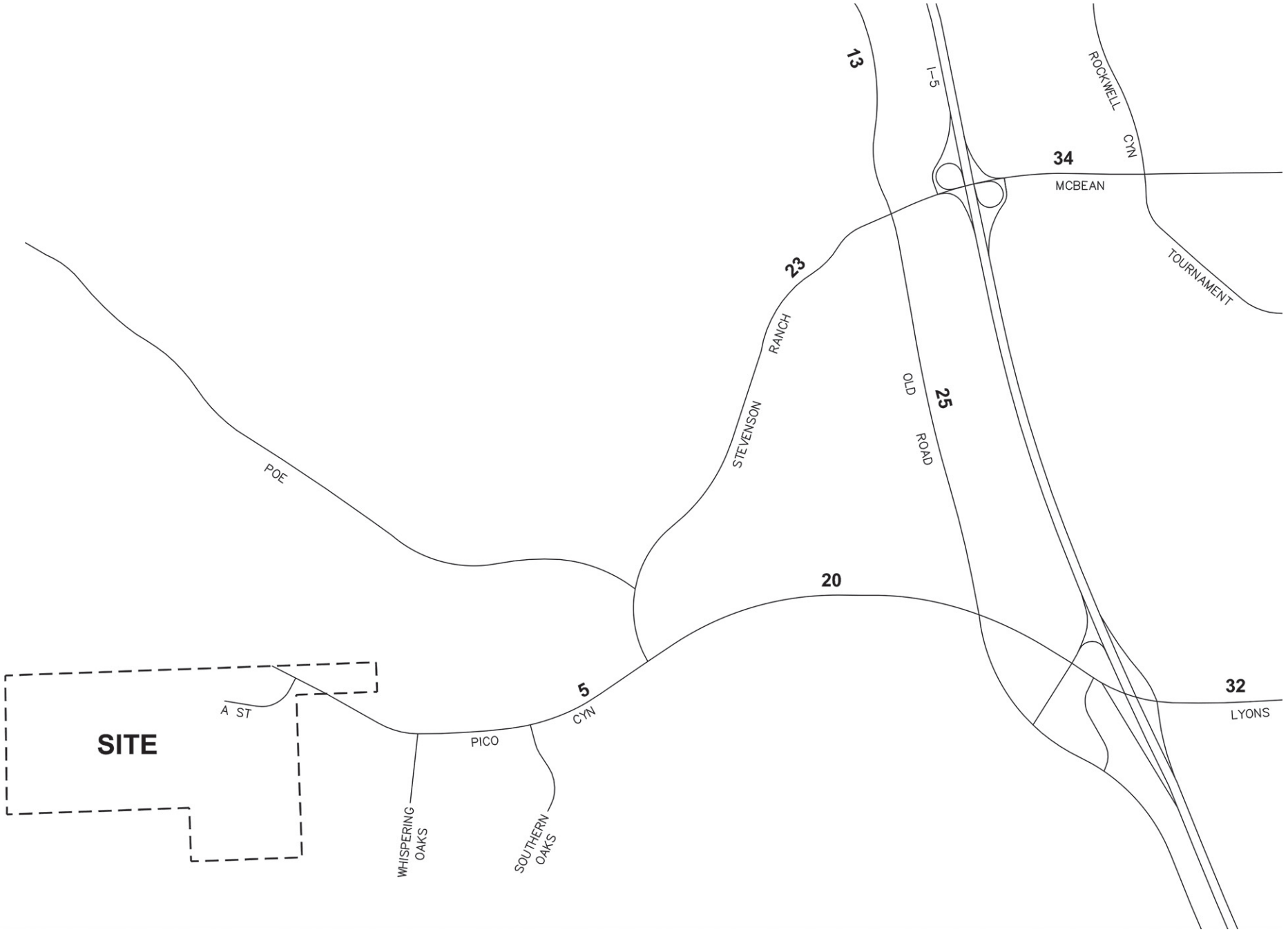
P.M. Peak Hour Volumes – Project Only

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-11



- PRELIMINARY WORKING DRAFT -

PCR

N

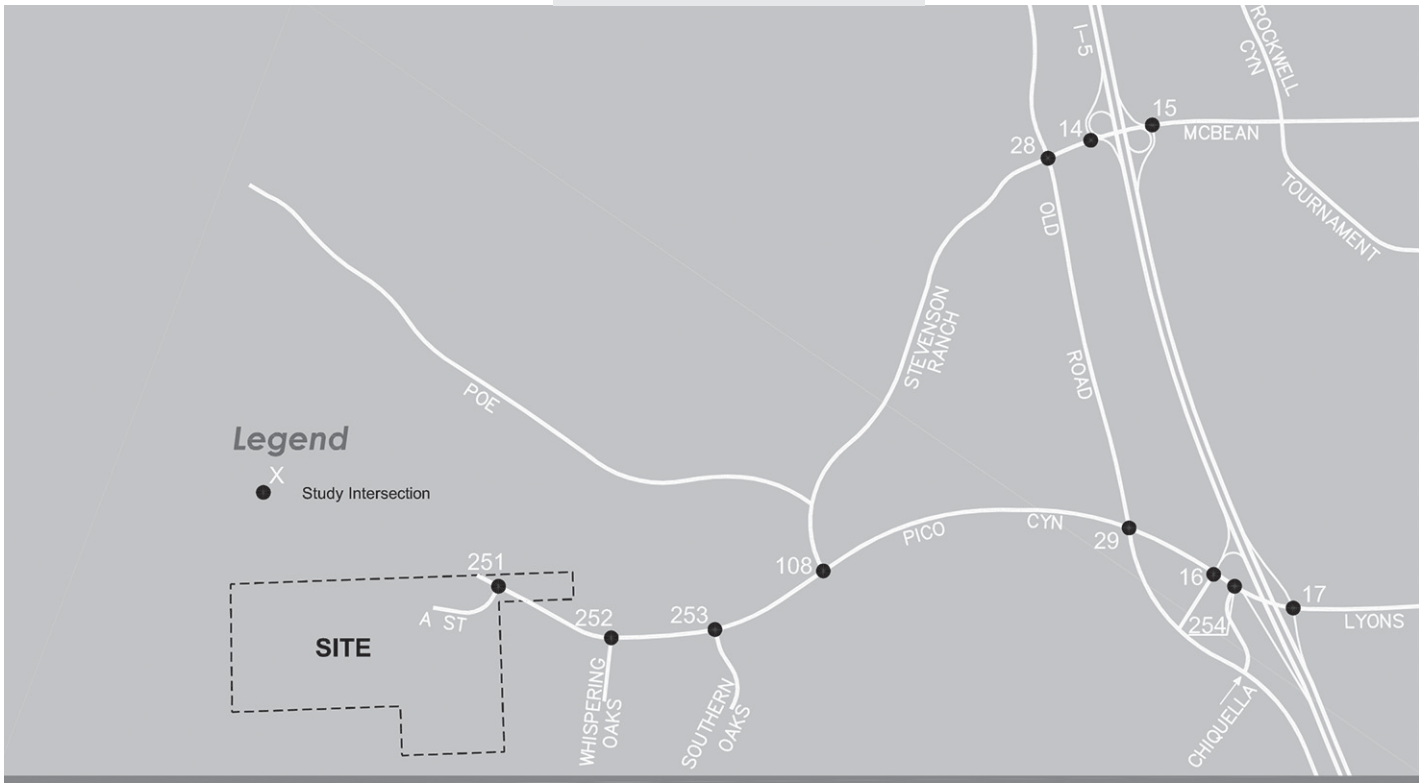
ADT Volumes (000s) – Existing Plus Project

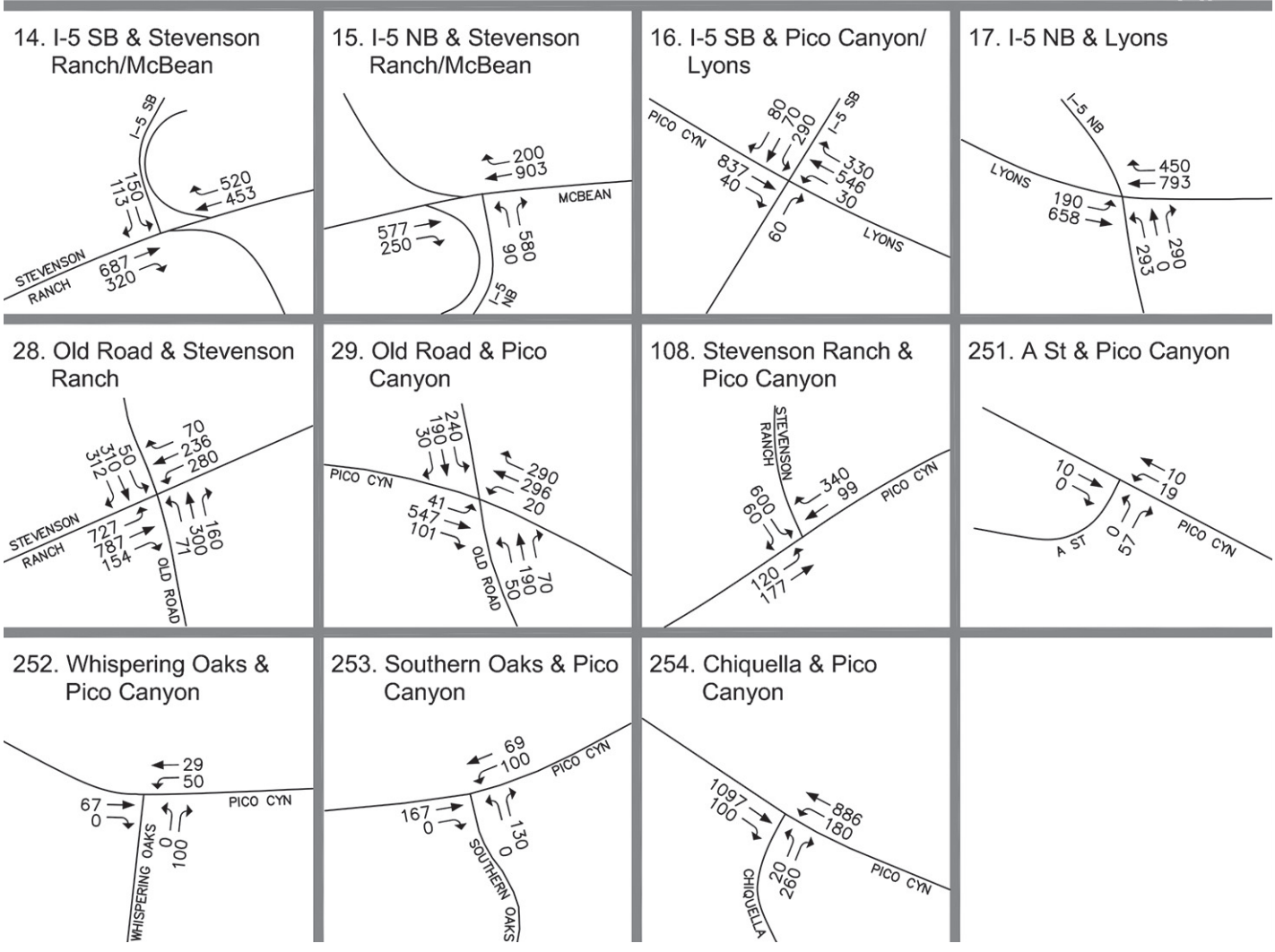
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-12





PCR

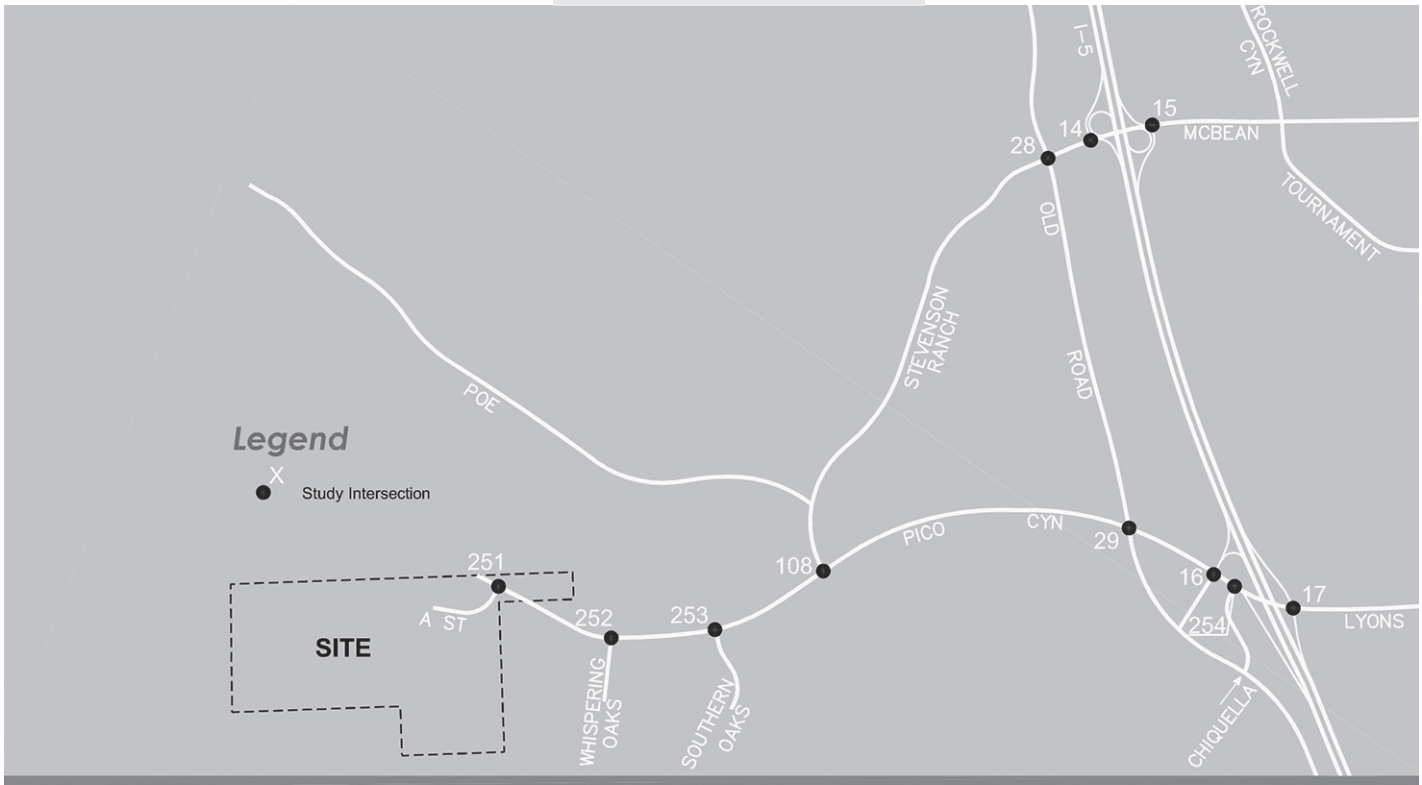
A.M. Peak Hour Turning Movement Volumes Existing-Plus-Project

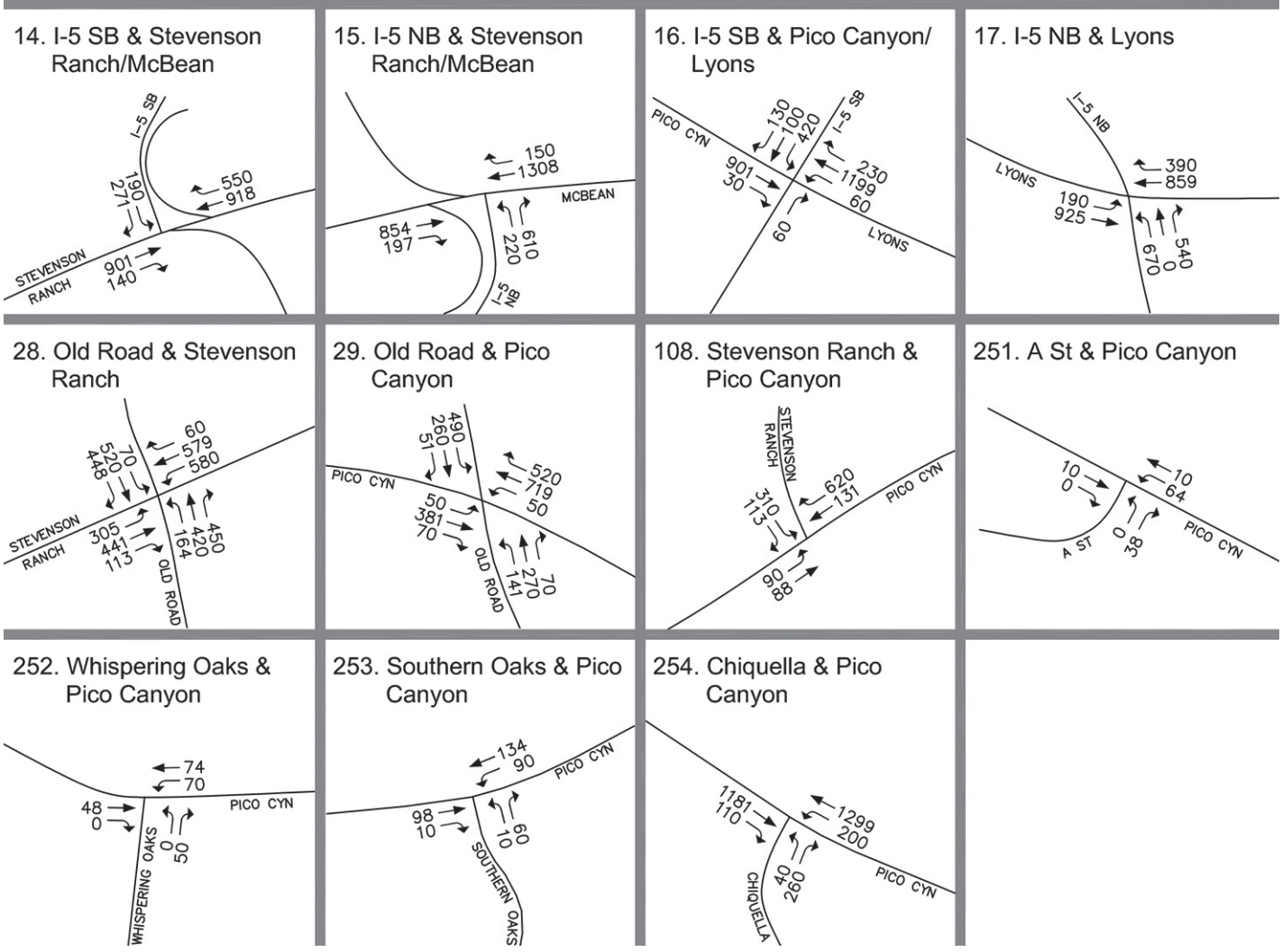
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-13





PCR

P.M. Peak Hour Turning Movement Volumes Existing-Plus-Project

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-14

This page intentionally blank.

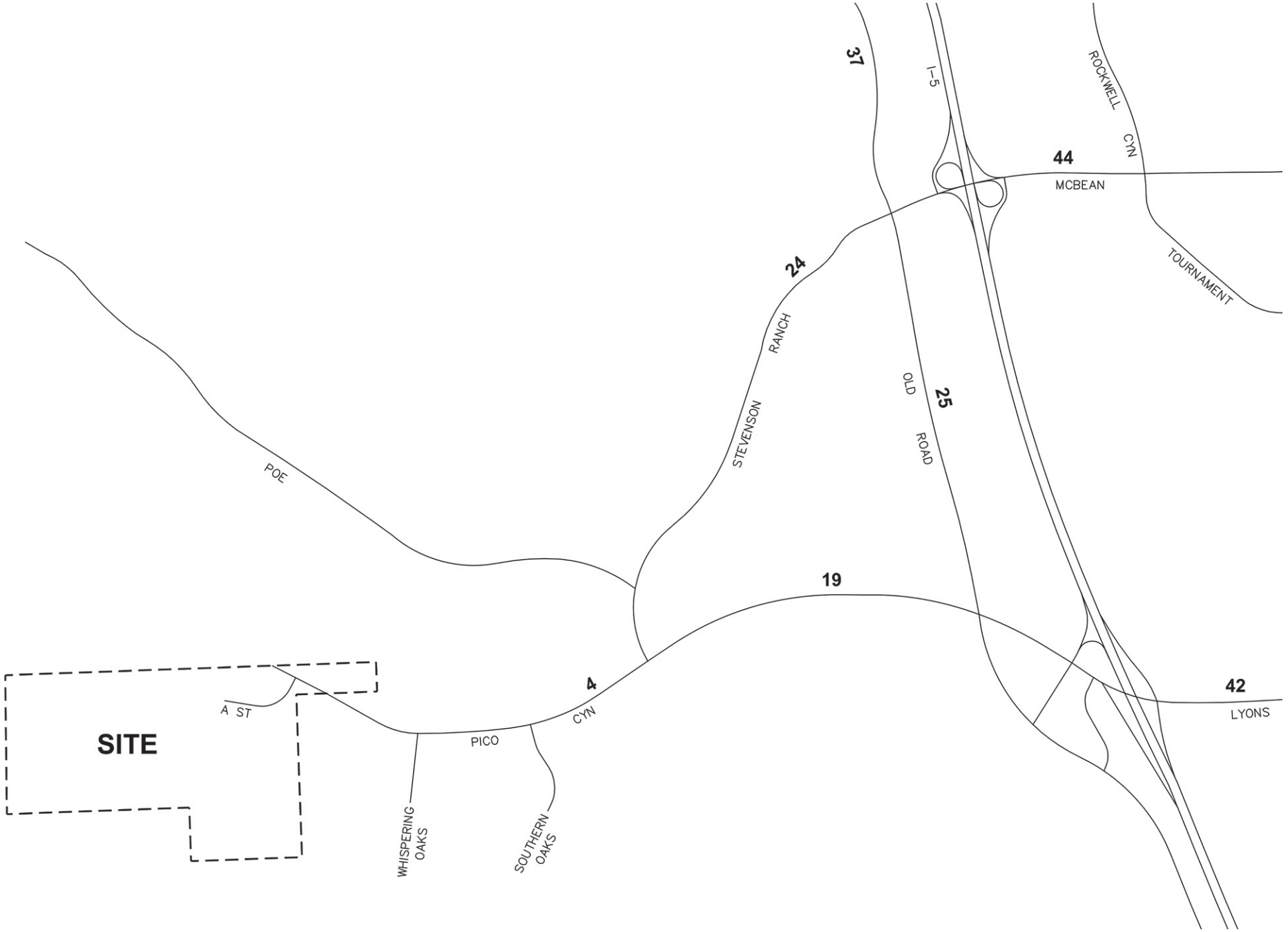
Table 4.12-7

ICU Summary – Existing Conditions with and without Project

Intersection	Jurisdiction	Existing				Existing-plus-Project				Increase	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
Joint Caltrans/County Intersections											
14. I-5 SB & Stevenson Ranch/McBean	County/Caltrans	.43	A	.54	A	.43	A	.56	A	.00	.02
16. I-5 SB/Marriott & Pico/Lyons	County/Caltrans	.52	A	.63	B	.52	A	.63	B	.00	.00
Joint Caltrans/City Intersections											
15. I-5 NB Ramps & McBean	City/Caltrans	.44	A	.52	A	.44	A	.52	A	.00	.00
17. I-5 NB Ramps & Lyons	City/Caltrans	.55	A	.64	B	.55	A	.64	B	.00	.00
County Intersections											
28. The Old Road & Stevenson Ranch	County	.58	A	.69	B	.59	A	.71	C	.01	.02
29. The Old Road & Pico Canyon	County	.44	A	.63	B	.44	A	.63	B	.00	.00
108. Stevenson Ranch & Pico Canyon	County	.43	A	.56	A	.45	A	.58	A	.02	.02
251. "A" St. (VTTM 52796) & Pico Canyon	County	--		--		.16	A	.17	A	.16	.17
252. Whispering Oaks & Pico Canyon	County	.20	A	.18	A	.23	A	.20	A	.03	.02
253. Southern Oaks & Pico Canyon	County	.31	A	.24	A	.34	A	.27	A	.03	.03
254. Chiquella & Pico Canyon	County	.47	A	.53	A	.47	A	.53	A	.00	.00

Source: Stantec Consulting Services, Inc., 2014

This page intentionally blank.



- PRELIMINARY WORKING DRAFT -

PCR

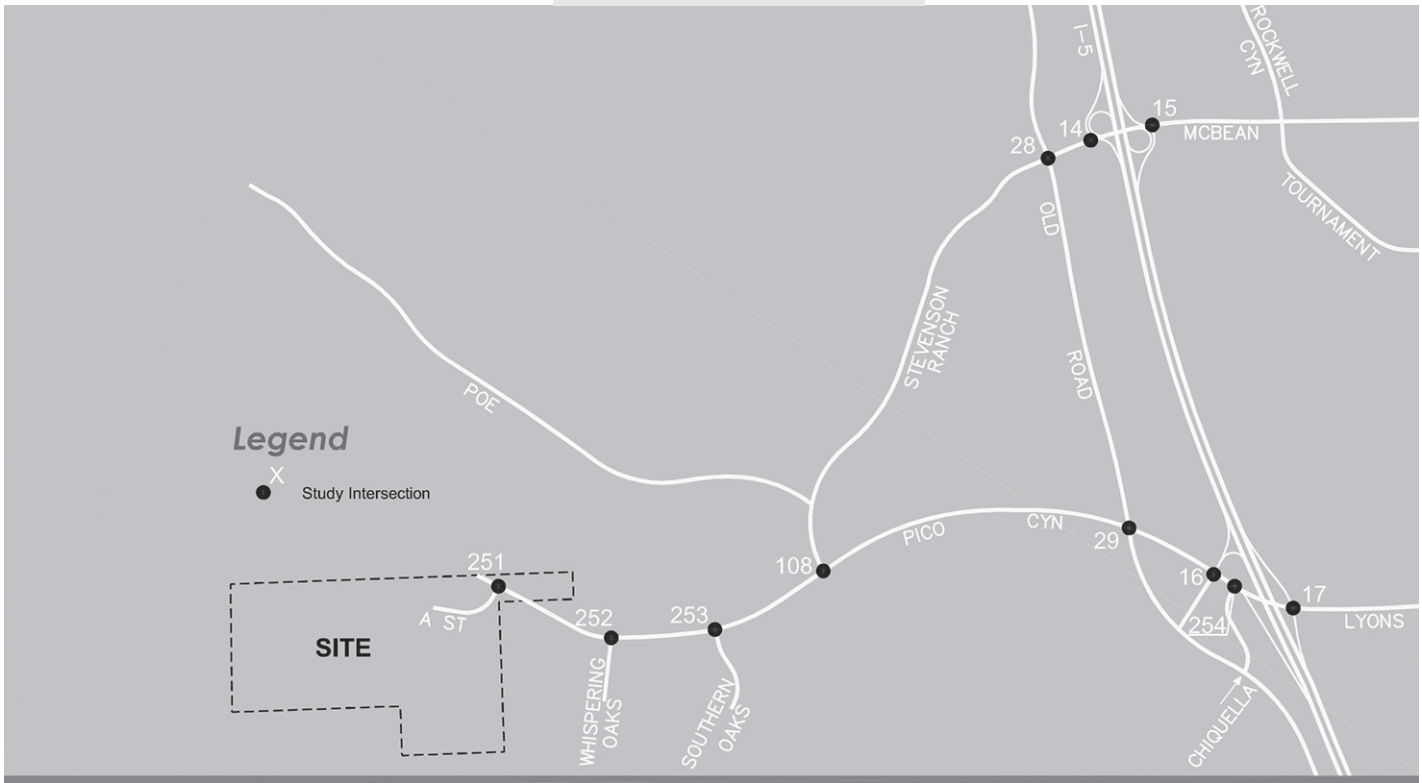
ADT Volumes (000s) – Cumulative Conditions without Project (2034)

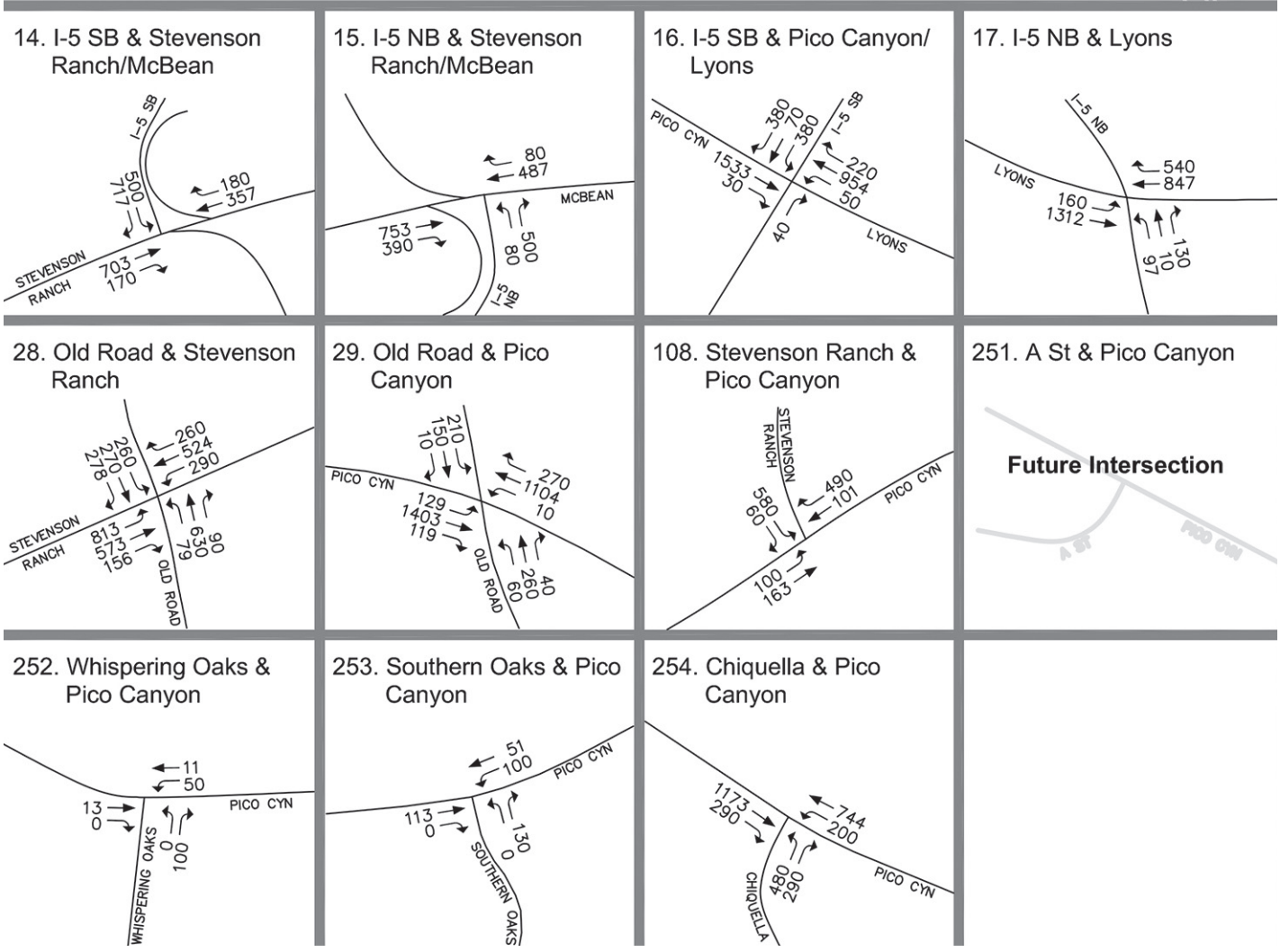
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-15





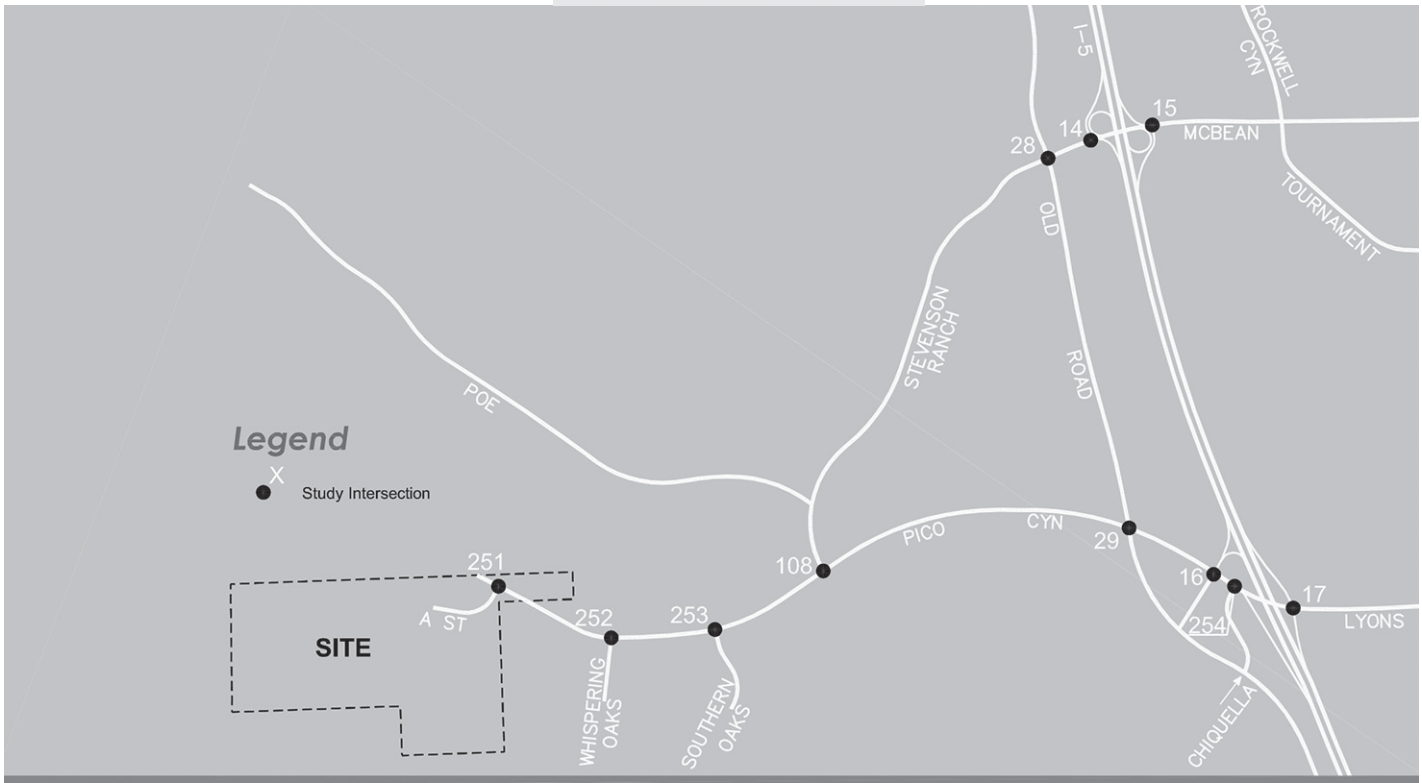
PCR

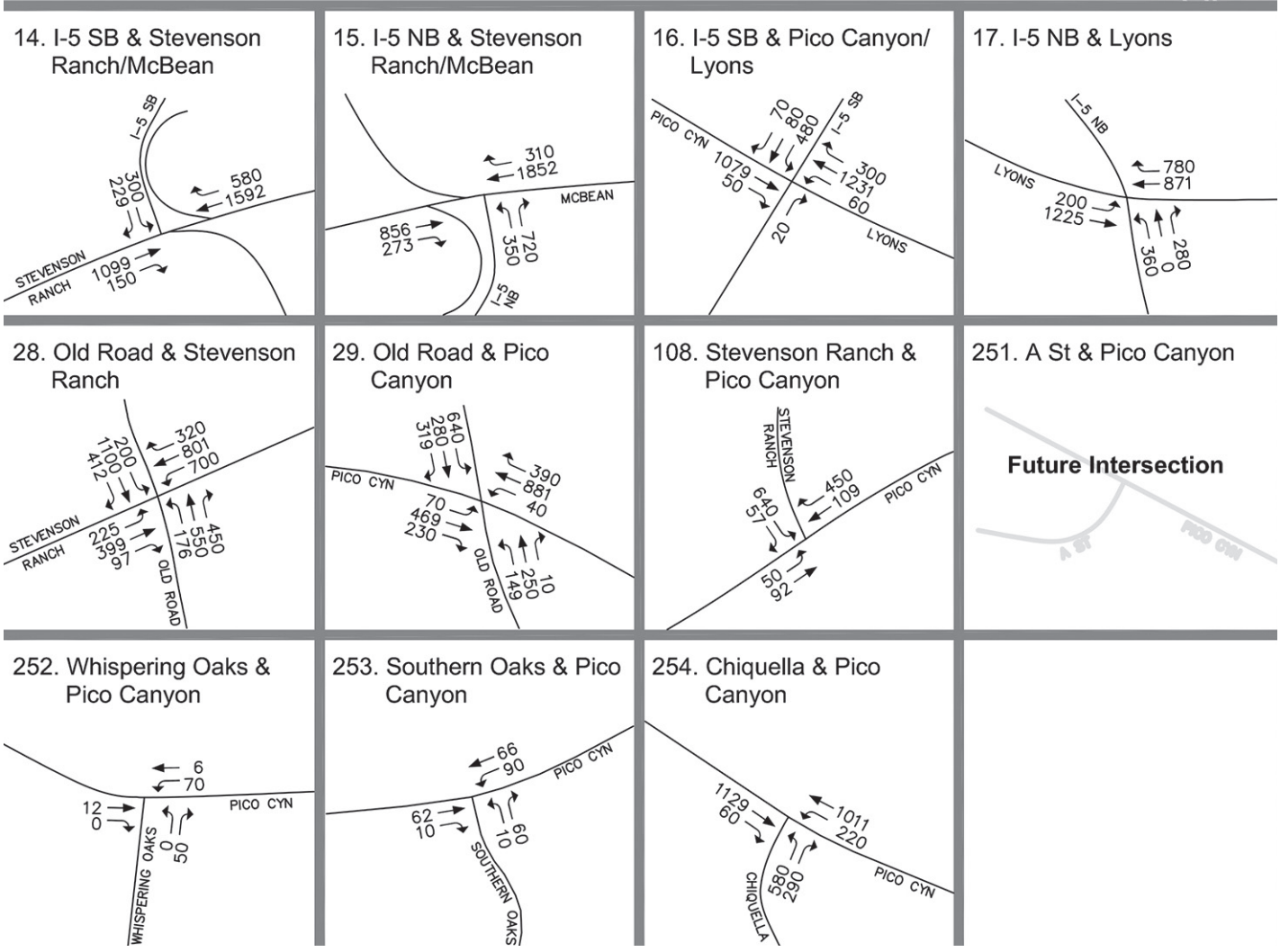
A.M. Peak Hour Turning Movement Volumes
Cumulative Conditions without Project (2034)

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE
4.12-16





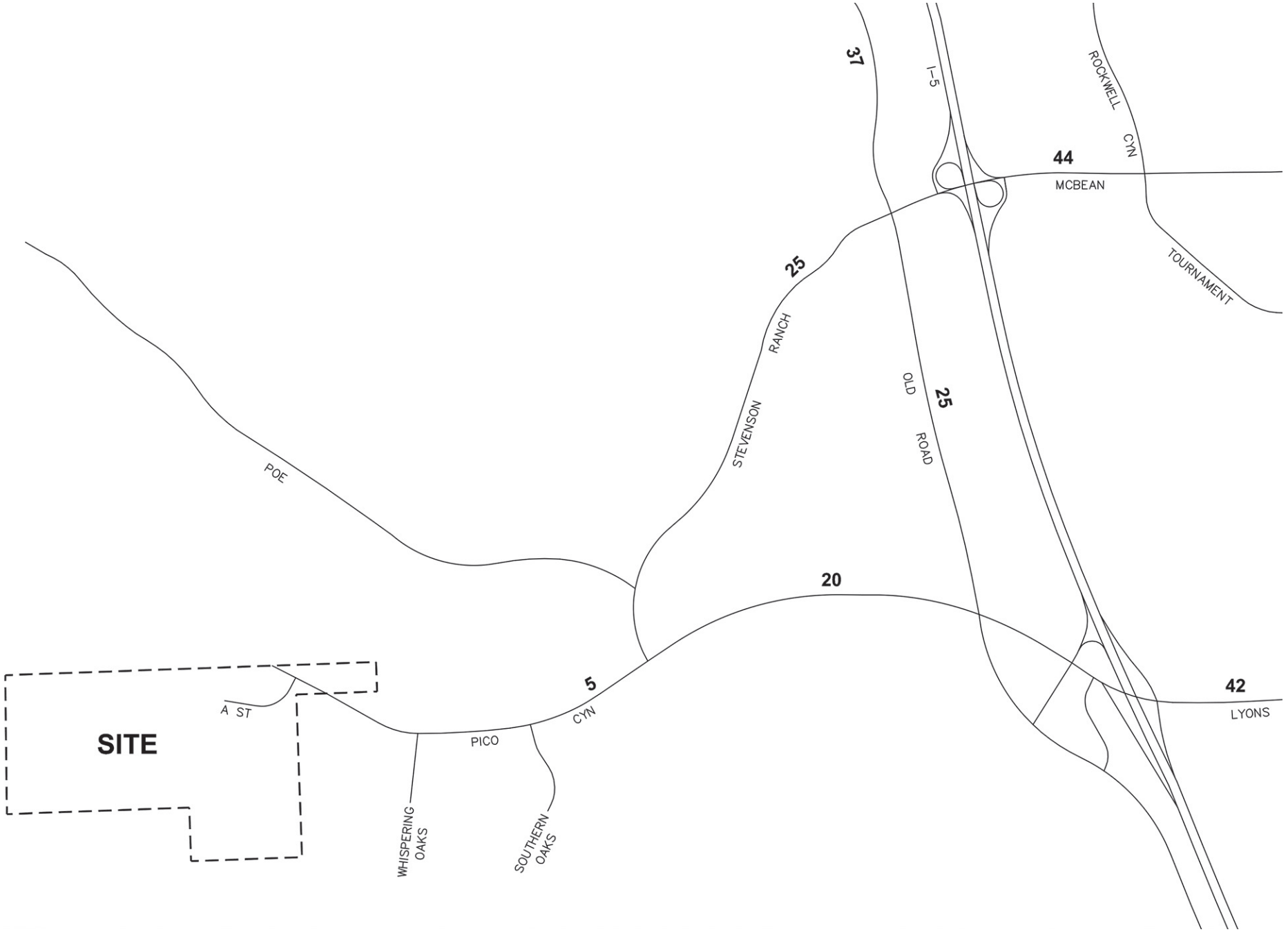
PCR

P.M. Peak Hour Turning Movement Volumes
Cumulative Conditions without Project (2034)

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE
4.12-17



- PRELIMINARY WORKING DRAFT -

PCR

N

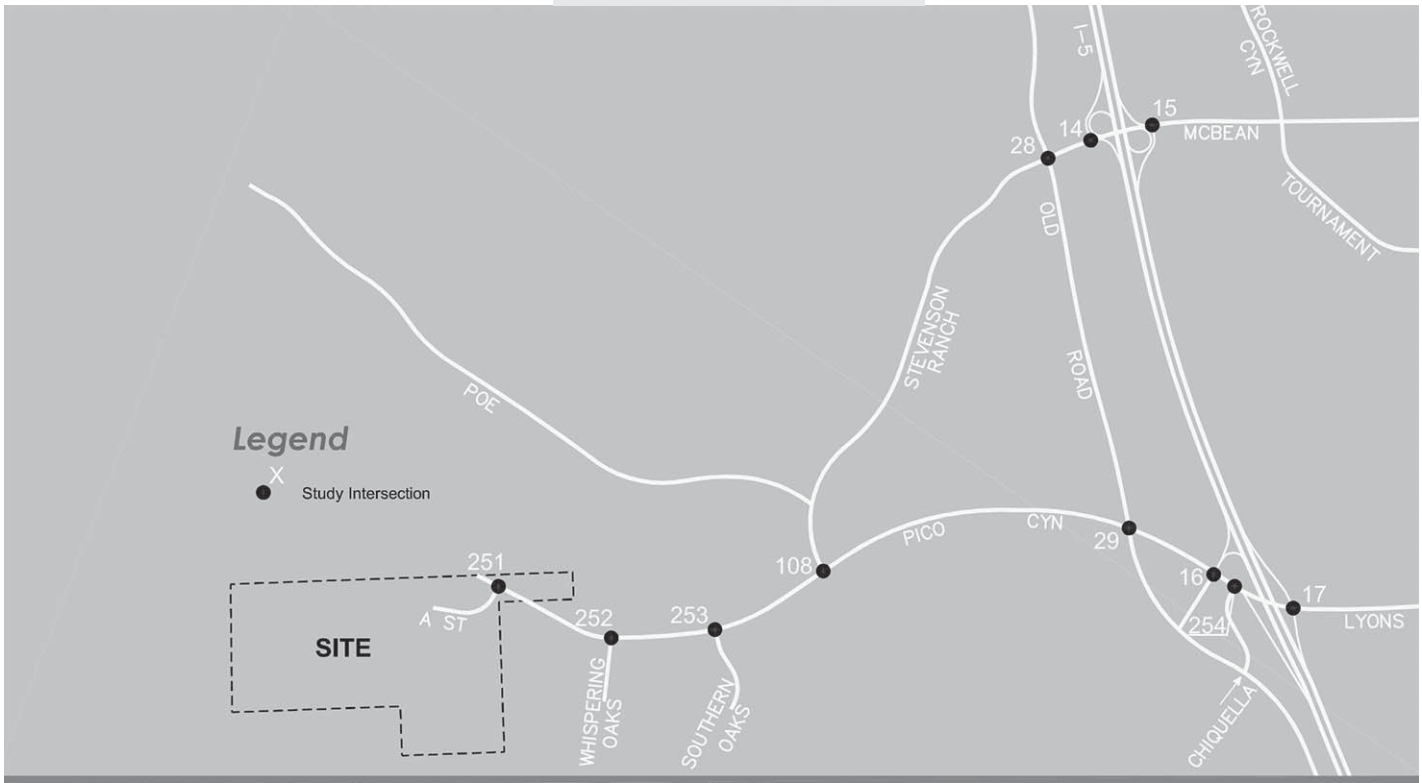
ADT Volumes (000s) – Cumulative Conditions with Project (2034)

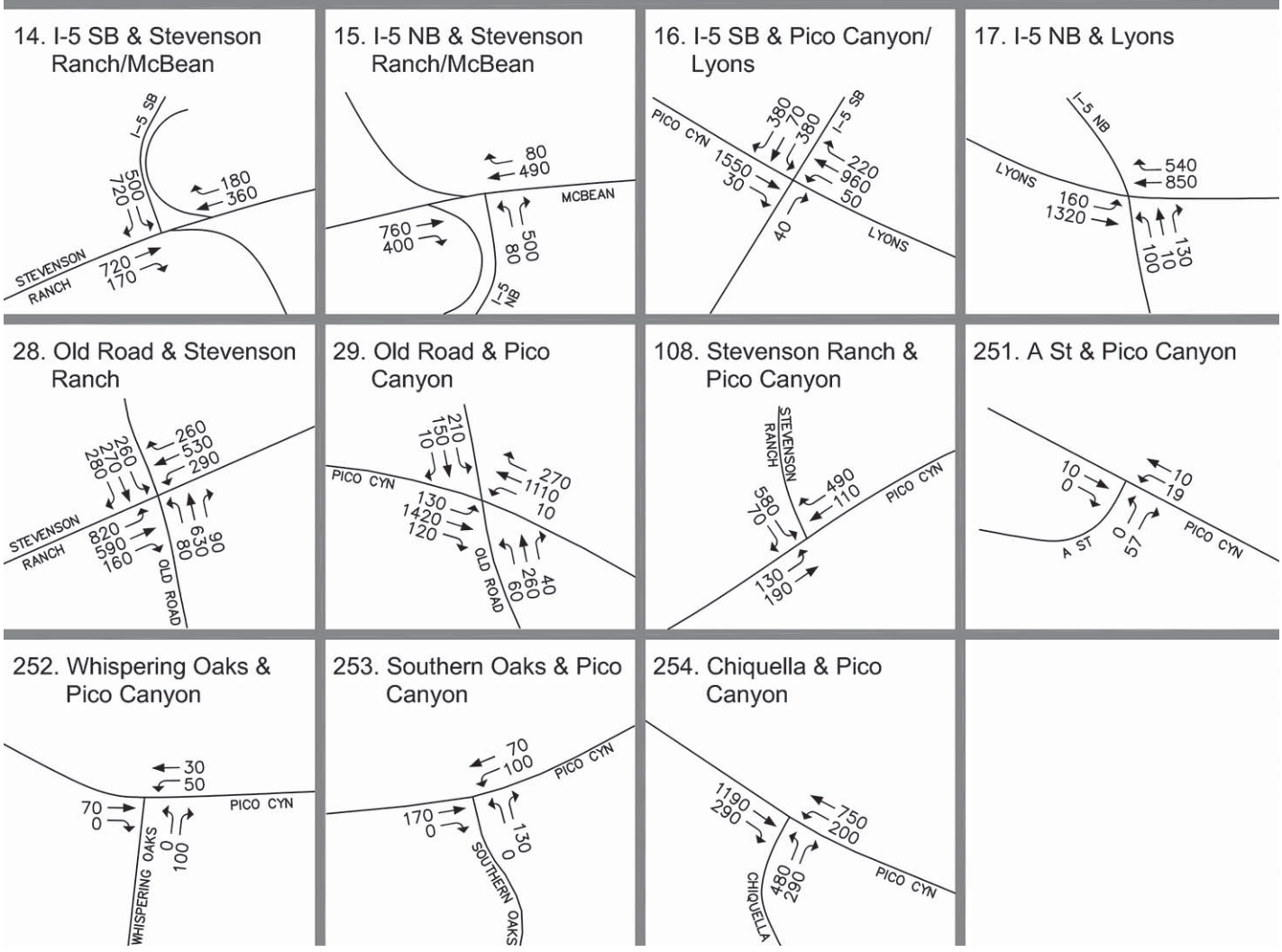
Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE

4.12-18





PCR

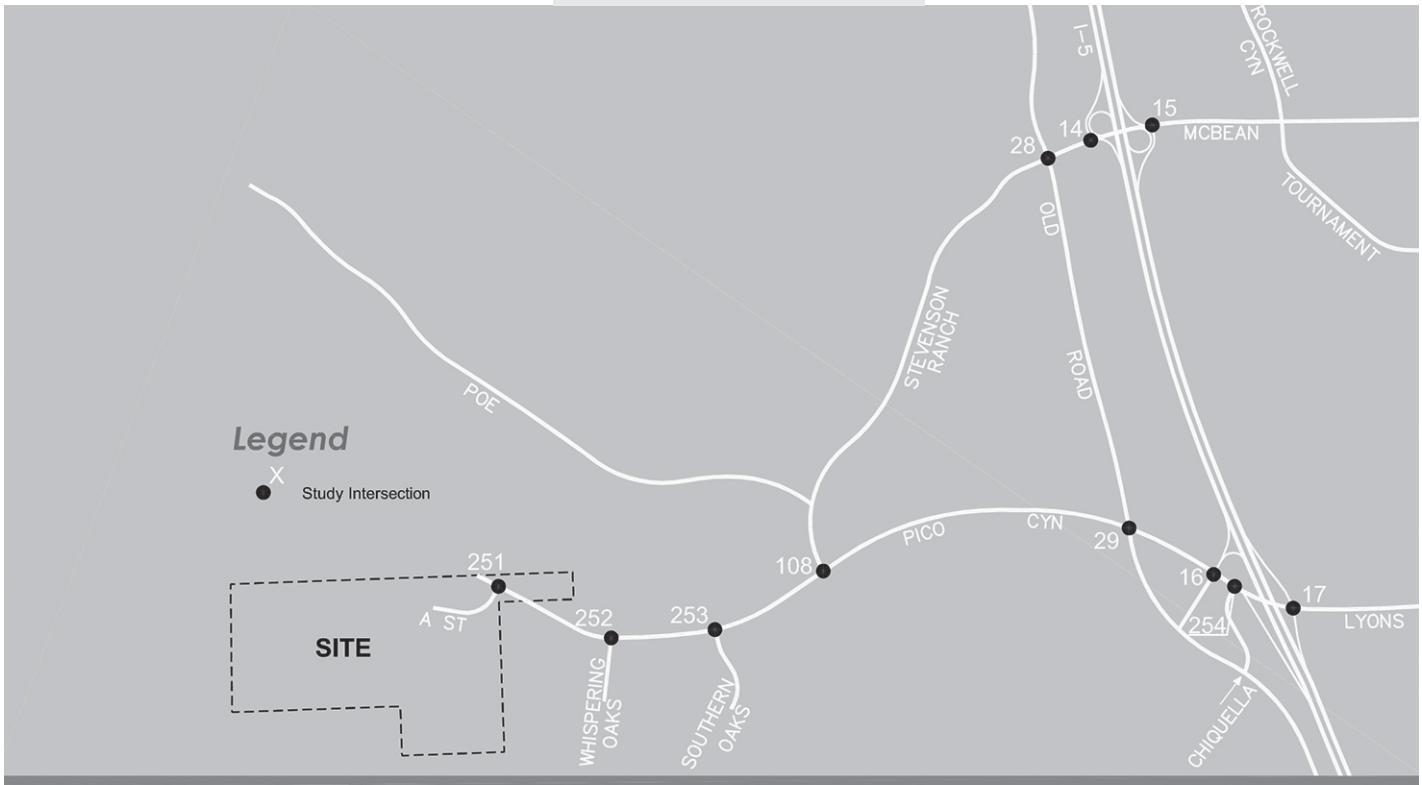
A.M. Peak Hour Turning Movement Volumes
Cumulative Conditions with Project (2034)

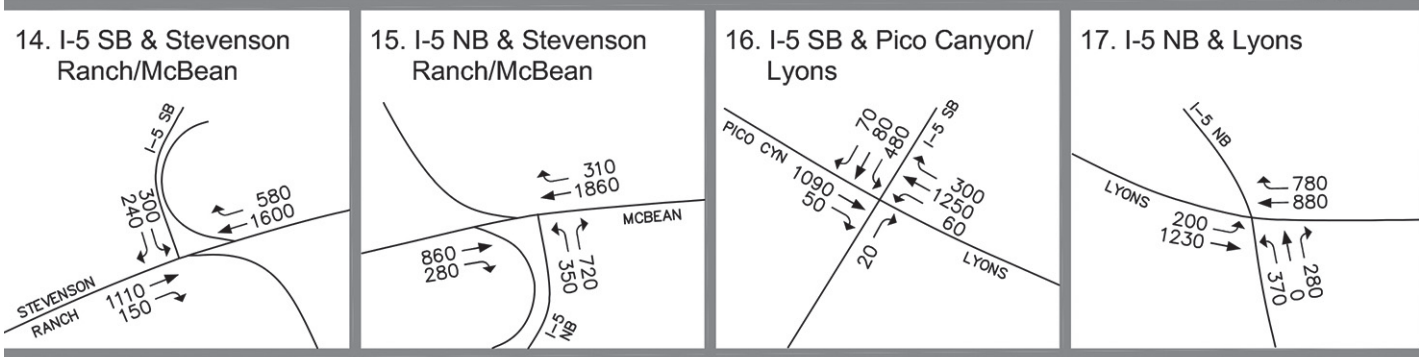
Aidlin Hills

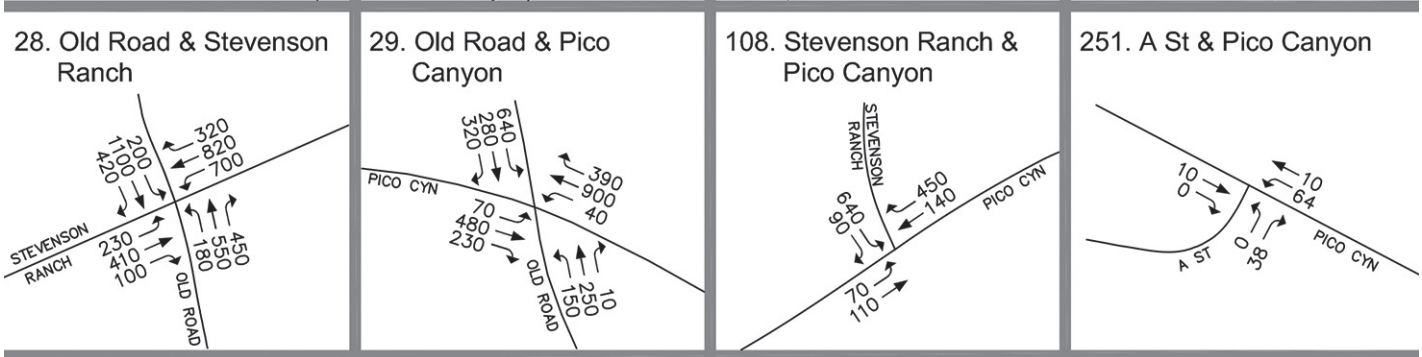
Source: Stantec Consulting Services Inc., 2014.

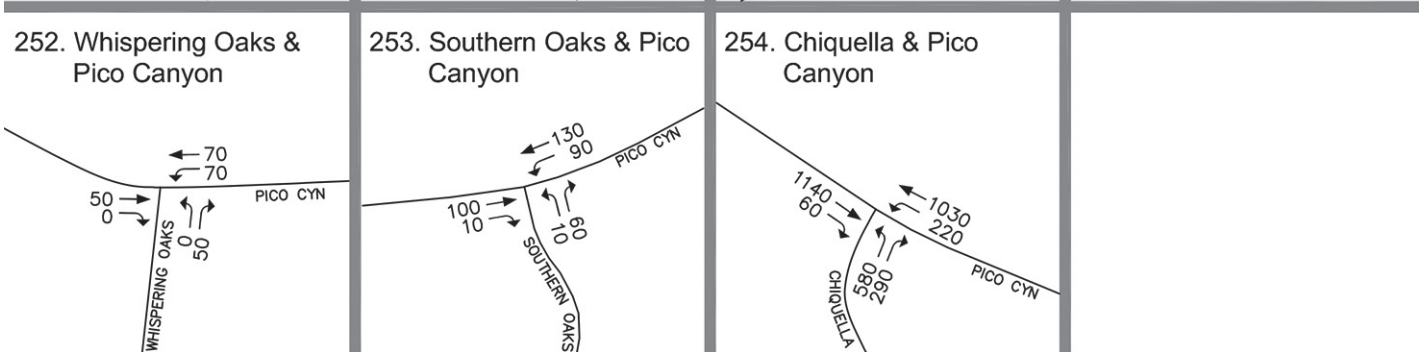
FIGURE

4.12-19









PCR

P.M. Peak Hour Turning Movement Volumes
Cumulative Conditions with Project (2034)

Aidlin Hills

Source: Stantec Consulting Services Inc., 2014.

FIGURE
4.12-20

Table 4.12-8

ICU Summary – Cumulative Conditions (2034) with and without Project

		Cumulative without Project				Cumulative with Project				Increase	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
Intersection	Jurisdiction	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
Joint Caltrans/County Intersections											
14. I-5 SB & Stevenson Ranch/McBean	County/Caltrans	.69	B	.79	C	.69	B	.79	C	.00	.00
16. I-5 SB/Marriott & Pico/Lyons	County/Caltrans	.77	C	.67	B	.77	C	.68	B	.00	.01
Joint Caltrans/City Intersections											
15. I-5 NB Ramps & McBean	City/Caltrans	.46	A	.61	B	.46	A	.61	B	.00	.00
17. I-5 NB Ramps & Lyons	City/Caltrans	.53	A	.76	C	.53	A	.77	C	.00	.01
County Intersections											
28. The Old Road & Stevenson Ranch	County	.92	E	.98	E	.92	E	.99	E	.00	**.01**
						(.84)	D	(.89)	D	(-.08)	(-.09)
29. The Old Road & Pico Canyon	County	.71	C	.72	C	.71	C	.72	C	.00	.00
108. Stevenson Ranch & Pico Canyon	County	.52	A	.46	A	.54	A	.47	A	.02	.01
251. "A" St. (VTTM 52796) & Pico Canyon	County	--		--		.16	A	.17	A	.16	.17
252. Whispering Oaks & Pico Canyon	County	.20	A	.18	A	.23	A	.21	A	.03	.03
253. Southern Oaks & Pico Canyon	County	.31	A	.25	A	.35	A	.27	A	.04	.02
254. Chiquella & Pico Canyon	County	.83	D	.85	D	.84	D	.85	D	.01	.00

***Bold** = Significant Impact*
(XX) = ICU and LOS with Mitigation

Source: Stantec Consulting Services, Inc., 2014

the A.M. and P.M. peak hour, as show in Table 4.12-8, and it fully mitigates the Project's contribution to the cumulative impact. The Caltrans intersections would operate at LOS "C" or better with the Project under 2034 cumulative conditions based on the HCM delay methodology preferred by Caltrans.

Mitigation Measures

Mitigation Measure 4.12-2 Prior to Final Map clearance, the Permittee shall be responsible for the payment of a pro-rata share contribution of four percent to convert the shared through/right-turn lane to one through lane and one right-turn lane on the east approach at the intersection of The Old Road and Stevenson Ranch Parkway. This conversion would result in a total of two left-turn lanes, two through lanes, and one right-turn lane on the east approach. Additionally, the Permittee shall be responsible for the payment of a pro-rata share contribution of four percent to add an overlap phase for the westbound right turn.

Congestion Management

Threshold TR-2: Would the Project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways?

Impact Statement 4.12-2: *Implementation of the Project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways. This impact would be less than significant.*

The Los Angeles County CMP requires that a proposed development addresses two major subject areas with respect to traffic impacts: (1) the project's impacts on the CMP highway system and (2) the project's impacts on the local and regional transit systems. According to the CMP guidelines, the geographical area to be examined in a CMP traffic impact analysis consists of the CMP monitoring locations that meet the following criteria: (1) CMP intersections where the proposed project will add 50 or more trips during either the A.M. or P.M. weekday peak hours (determined based on adjacent street traffic) and (2) mainline freeway locations where the project will add 150 or more trips, in either direction, during either A.M. or P.M. weekday peak hours.

As discussed under the Regulatory Framework above, the CMP intersections nearest to the Project site include the following: Valencia Boulevard and Magic Mountain Parkway within the City; Chiquito Canyon Road and SR-126 within the County; and Railroad Avenue (formerly San Fernando Road) and Lyons Avenue within the County. As displayed in Figure 4.12-8, above, the number of trips to and from the Project site is not forecast to exceed 50 peak hour trips at any of the nearby CMP intersections. The CMP monitoring locations within the mainline freeway nearest the Project site include the following: I-5 north of SR-126; I-5 north of SR-14; and I-5 north of Osborne Street. As displayed in Figure 4.12-8, above, the number of trips to and from the Project site is not forecast to exceed 150 peak hour trips at any of the nearby CMP monitoring locations. As such, the Project's traffic would not exceed the CMP thresholds.

Another component of the CMP transportation impact analysis includes the review of transit impacts. Public transit within the Santa Clarita Valley includes both bus and commuter rail service. As discussed under

Existing Conditions above, no transit lines are located within ¼ mile of the Project site. As such, the amount of transit trips to be generated by the Project is expected to be negligible. However, SCT regularly reevaluates its transit routes as areas experience new development. If the SCT were to expand transit service to within ¼ mile of the Project site, the Project would generate approximately 48[8] daily transit trips.[9] While the County does not have LOS standards applicable to future development such as the Project, the demand for transit service that would result from the Project (approximately 48 daily transit trips, or approximately five peak hour trips) is not anticipate to impact transit services.[10]

Metrolink, governed by the Southern California Regional Rail Authority (SCRAA), provides commuter rail service between the Antelope Valley and downtown Los Angeles, and links Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego counties with transfer service between the bus and rail systems. The Metrolink station nearest the Project site is located along Railroad Avenue just south of Lyons Canyon Road. A second Metrolink station is also located along Soledad Canyon Road east of Bouquet Canyon Road.

The closest Metrolink station to the Project site is the Newhall Metrolink Station located at 24300 Railroad Avenue in Santa Clarita. The Antelope Valley line primarily runs a peak period schedule with limited midday and late evening service. On weekdays, the Newhall Station receives 14 Union Station–bound and 14 Lancaster–bound trains. For trains to Los Angeles, service spans from 5:03 AM (first train to stop at Newhall) to 7:25 PM (last train to stop at Newhall). For trains to Lancaster, service spans from 7:18 AM to 10:08 PM. Weekend service is less frequent with six trains in each direction.[11]

The Newhall station provides commuter rail access to the western and southern areas of the City. Newhall station has 331 parking spaces (324 regular, 17 disabled) in three parking lots, for which there is no parking fee. Ridership data collected for October, November and December 2014 indicated an average of 295 passengers based on ridership estimates of ticket sales by station of origin. This average reflected an overall ridership reduction of 7.8% for the period of October, November and December 2013.[12] The ridership trend since June 2010 has been gradually lower over the past four year period. With ridership lower than in past years, the potential addition of rail passengers originating from the 102 proposed homes would have little or negligible impact of rail service in the Santa Clarita area.

The Project has been designed for pedestrian connectivity, which includes facilities for bicycle use (i.e., the installation of Class II bicycle lanes on Pico Canyon Road). Additionally, the Project would not conflict with the Metro Bicycle Transportation Strategic Plan, which seeks to make cycling a viable travel choice by promoting links between bicycle facilities and the transit network. As such, impacts to CMP facilities would be less than significant.

Based on the trip generation figures cited above for the Project, the Project's traffic would not exceed the CMP thresholds or impact transit or pedestrian facilities. As such, impacts to CMP facilities would be less than significant.

---

[8] *971 Project trips generated X 1.4 (occupancy factor) X 3.5 percent (MTA factor) = 48 daily transit trips.*

[9] *Aidlin Hills VTTM 52796 Traffic Impact Analysis, prepared by Stantec Consulting Services, Inc., dated November 24, 2014.*

[10] *Ibid.*

[11] *http://www.metrolinktrains.com/schedules/line/name/Antelope%20Valley/service_id/1142.html*

[12] *Obtained from Metrolink Website for Metrolink Station Boardings FY2014-15 Q2, found at http://www.metrolinktrains.com/agency/page/title/facts#performancedata*

Air Traffic Patterns

Threshold TR-3: Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Impact Statement 4.12-3: *Implementation of the Project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. No impact would occur in this regard.*

The nearest airports, Van Nuys Airport and Whiteman Airport, are located approximately 12 miles south and 13 miles southeast of the Project site, respectively. As such, the Project would not result in a change in air traffic patterns, including increases in traffic levels or changes in location that would result in substantial safety risks. No impact would occur in this regard.

Traffic Hazards

Threshold TR-4: Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact Statement 4.12-4: *Implementation of the Project would not substantially increase hazards due to a design feature or incompatible use. This impact would be less than significant.*

The Permittee proposes to widen the segment of Pico Canyon Road that generally traverses the northern boundary of the Project site, consistent with the County's designation of the roadway as a major arterial as well as the approved alignment of the road east of the site. A 24-foot wide paved emergency vehicle access road to the east, connecting with Verandah Court, would be maintained to provide emergency access to. Further, the Project proposes a network of local residential streets to provide access to and vehicular circulation throughout the site.

The area immediately to the east includes single-family residential uses similar to the Project. There are no existing hazardous design features such as sharp curves or dangerous intersections on-site or in the surrounding area. The Project does not include uses that are incompatible to the existing street system. Site access and circulation will be reviewed by the County's Public Works Road Division to ensure that the Project does not substantially increase hazards due to a design feature. Thus, impacts would be less than significant.

Emergency Access

Threshold TR-5: Would the Project result in inadequate emergency access?

Impact Statement 4.12-5: *Implementation of the Project would not result in inadequate emergency access. This impact would be less than significant.*

Regional access to the Project site is provided via I-5, located approximately 1.6 miles east of the Project site. Local access to the Project site is provided by a single entry from Pico Canyon Road. Per the Los Angeles

County, Code of Ordinances, Title 21, Subdivisions, Chapter 21.24, Design Standards, Part 1, Access, Section 21.24.020, Restricted residential access, a project is required to provide a secondary emergency vehicle access road if a project proposes more than 75 residential units within a wildland area subject to hazard from brush or forest fire. The Project site is susceptible to wildland fire hazards and is located within Fire Zone 4, which is a Very High Fire Hazard Severity Zone (VHFHSZ).[13] As such, a gated secondary emergency vehicle access will be provided by a connection to Whispering Oaks Road or Southern Oaks Drive via Tulip Grove Road and Verandah Court to the east.

The Project site would be designed to provide access to fire, ambulatory, and police vehicles from adjacent roadways. Clear and uninterrupted access into the site for emergency response vehicles would be served from Pico Canyon Road. The Project's access drives and internal private drives would be designed to meet the County and LACFD standards. All site access and circulation would be reviewed by the Los Angeles County DPW and LACFD to ensure that the Project provides adequate emergency access. As discussed above, the Project would also result in less than significant traffic impacts with implementation of the prescribed mitigation measure. Accordingly, the function of the street system would remain and there would be available capacity to accommodate the projected traffic volumes, in addition to emergency vehicles.

Based on the above, impacts related to emergency access would be less than significant.

Conflict with Adopted Policies, Plans, or Programs

Threshold TR-6: Would the Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Impact Statement 4.12-6: *Implementation of the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be less than significant.*

The Project consists of a residential development that would not conflict with adopted policies, plans, or programs supporting alternative transportation. The Project does not propose to alter any existing bus turnouts or established alternative transportation programs within the County. The four-mile Pico Canyon Trail meanders through Pico Canyon in areas generally to the north, both west and east of the Project site. Construction and operation of the Project would not impede the use of the trail or decrease the performance or safety of the trail with the incorporation of Mitigation Measures 4.11-1 through 4.11-4 in Section 4.11, *Public Services* and Mitigation Measure 4.12-1 above to address construction related impacts. Based on the above, a less than significant impact would occur in this regard.

3. CUMULATIVE IMPACTS

Cumulative Threshold: Would the Project result in cumulatively considerable impacts in consideration of the thresholds (TR-1 through TR-6) analyzed in this EIR section?

[13] *Los Angeles County General Plan 2035, Public Review Draft, Figure 12.5, Fire Hazard Severity Zones Policy Map, January 20, 2014.*

Impact Statement 4.12-7: The Project combined with the related projects would not result in substantial adverse effects related to traffic and transportation in the Project area. Cumulative traffic and transportation impacts would be less than significant and not cumulatively considerable.

The traffic analysis under Impact Statement 4.12-1 considers ambient traffic growth and traffic growth attributable to the identified related projects anticipated to occur under the Project's buildout date (2017) and the buildout year for related projects (2034). The list of related projects is provided in Table 4.12-3 and illustrated in Figure 4.12-7. Therefore, the cumulative impact analysis is incorporated into the analysis presented under Impact Statement 4.12-1. Accordingly, the cumulative impact analysis conducted under Impact Statement 4.14-1 includes the incremental effect of the Project added to other past, present and probable future projects. As discussed therein, traffic impacts during operation of the Project would be less than significant with implementation of the prescribed mitigation measure (refer to Mitigation Measure 4.12-2). With regards to construction related traffic and pedestrian safety, per Mitigation Measure 4.12-1, the Project would be required to prepare a Construction Staging and Traffic Management Plan to be implemented during construction of the Project. The Construction Staging and Traffic Management Plan would be required to consider related project construction traffic. Thus, potentially significant cumulative construction-related traffic impacts would be reduced to a less than significant level with implementation of Mitigation Measure 4.12-1.

With regard to the Los Angeles County CMP, the Project would result in a less than significant impact as described above. All related projects would be responsible for addressing project-specific impacts on the CMP highway system and impacts on local and regional transit systems. As such, a less than significant cumulative impact regarding compliance with CMP thresholds and facilities would occur with Project implementation.

With regard to air traffic patterns, the Project would result in no impact as described above. All related projects would be responsible for addressing project-specific impacts on changes in air traffic patterns, including increases in traffic levels or changes in locations resulting in safety risks. As such, no cumulative impact regarding changes in air traffic patterns would occur with Project implementation.

With regard to hazardous design features and conflicts with alternative transportation facilities and programs, it is anticipated that future related projects, similar to the Project, would be subject to appropriate Los Angeles County review to ensure that no hazardous design features are approved and no conflicts occur with alternative transportation facilities and programs. Therefore, cumulative impacts related to these issues would be less than significant.

With regard to emergency access, the Project would result in a less than significant impact as described above, particularly as it meets the County's minimum number of required emergency access roads. All related projects would be responsible for providing the minimum number of required emergency access roads built to appropriate roadway standards, as required by the jurisdiction in which the project is located. As such, a less than significant cumulative impact regarding emergency access would occur with Project implementation.

4. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Traffic and transportation impacts would be less than significant with implementation of the prescribed mitigation measures and compliance with applicable regulatory requirements.

5. Alternatives

5.0 ALTERNATIVES

Under CEQA, the identification and analysis of alternatives to a project is a fundamental part of the environmental review process. CEQA Public Resources Code Section 21002.1(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided."

Direction regarding the definition of project alternatives is provided in the *State CEQA Guidelines* as follows:

> *An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.*[1]

State CEQA Guidelines emphasize that the selection of project alternatives be based primarily on the ability to reduce impacts relative to the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."[2] The *State CEQA Guidelines* further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are addressed.[3]

In selecting project alternatives for analysis, potential alternatives must pass a test of feasibility. *State CEQA Guidelines* Section 15126.6(f)(1) states that:

> *Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site . . .*

Beyond these factors, *State CEQA Guidelines* require the analysis of a "no project" alternative and an evaluation of alternative location(s) for the project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives.[4] In addition, *State CEQA Guidelines* Section 15126.6(c) requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible and discuss the reasons for their rejection.

Of the various alternatives available for evaluation, the process of selecting project alternatives to be analyzed in this EIR considered the potential for significant effects associated with the Project, a review of

[1] *State CEQA Guidelines Section 15126.6(a).*

[2] *State CEQA Guidelines Section 15126.6(b).*

[3] *State CEQA Guidelines Section 15126.6(f).*

[4] *State CEQA Guidelines Section 15126.6(e)(2).*

the basic objectives established for the Project (outlined in Section 2, *Project Description*, and in subsection 1, below), and consideration of the land use plans applicable to the Project site. The analysis included in Section 4.0 of this EIR concluded that the Project would not result in any significant environmental impacts with implementation of the prescribed mitigation measures. Nonetheless, based on the factors referenced above, the alternatives that were selected for analysis include:

- **No Project/No Development Alternative:** Under the No Project/No Development Alternative, no improvements to the Project site would occur, and the site would remain in its vacant, undeveloped state.

- **"One Valley, One Vision" Alternative:** Because the Project was originally submitted prior to the 2012 adoption of the "One Valley, One Vision" Plan, the Project is processed with respect to the 1990 Santa Clarita Valley Area Plan land use categories, which existed at the time of the original application. These land use designations are U2 – Urban 2, HM – Hillside Management, and W – Floodway/Floodplain. The Project site is zoned A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size), which was not changed with the adoption of the 2012 "One Valley, One Vision" Plan. The "One Valley, One Vision" Alternative would be consistent with the 2012 "One Valley, One Vision" Plan with land use categories of RL 5 (Rural Land 5; 60 acres) and RL 20 (Rural Land 20; 170 acres). This Alternative could create up to 12 five-acre and eight 20-acre parcels with each lot's development potential up to 3.5 acres. The development potential area would result from the requirements for compliance with the Hillside Management regulations for safe manufactured slopes not exceeding 2:1 (50%). The resulting 20-parcel subdivision would have a development footprint, inclusive of fuel modification, of approximately 70 acres, which would not necessarily be clustered. No provision for water storage tanks would be included in this Alternative and a secondary emergency access would not be needed or proposed. It is assumed that residential parcels would be expected to include individual equestrian facilities, which would be developed within the respective 5-acre and 20-acre parcels.

- **"One Valley, One Vision" Density-Control Alternative:** Similar to the "One Valley, One Vision" Alternative above, the "One Valley, One Vision" Density-Control Alternative would be consistent with the 2012 "One Valley, One Vision" Plan with land use categories of RL 5 (Rural Land 5; 60 acres) and RL 20 (Rural Land 20; 170 acres). The Project site zoning of A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size) remains unchanged with the adoption of the 2012 "One Valley, One Vision" Plan. This "One Valley, One Vision" Density-Control Alternative could also create up to 20 parcels, but the land division design would cluster the parcels in a density-controlled project in the eastern portion of the Project site taking access from stub street Verandah Court in the Southern Oaks community. Lot sizes would average 15,000 square feet, comparable to the Southern Oaks community. The clustered design would allow for the overlap of individual fuel modification zones, reducing the overall development footprint. The resulting 20-parcel subdivision would have a development footprint, inclusive of fuel modification, of approximately 15 acres, which would be clustered with a common access street connecting to Verandah Court, eliminating connection with Pico Canyon Road. There would be no water storage tanks included in this Alternative and a secondary emergency access would not be needed or proposed. Indigenous plant species planting of Wickham Canyon would not be a component of this Alternative. Unlike the "One Valley, One Vision" Alternative, the residential units would not be expected to include individual equestrian facilities. Because of the smaller, 15,000 square foot lot sizes, the project design would not require the full

230.5 acres to provide the hillside density and would retain an approximately 130-acre remainder parcel along the southern and western property.

- **Reduced Density Alternative:** The Reduced Density Alternative would reduce the overall development intensity by 26 percent relative to the proposed Project. This Reduced Density Alternative would allow for a maximum of 75 single-family dwellings and would exclude the emergency secondary fire access road. Per the Los Angeles County Code of Ordinances, Title 21, Subdivisions, Chapter 21.24, Design Standards, Part 1, Access, Section 21.24.020, Restricted residential access, a project is required to provide a secondary emergency vehicle access road if a project proposes more than 75 residential units within a street system that traverses a wildland area subject to hazard from brush or forest fire. As such, the secondary emergency vehicle access road would be eliminated from the Reduced Density Alternative, as it is not required. Additionally, indigenous plant species planting of Wickham Canyon would not be a component of this Alternative.

Each of these alternatives is described in more detail in Subsection 5.4, below.

1. OBJECTIVES OF THE PROPOSED PROJECT

Section 15124(b) of the *State CEQA Guidelines* states that the project description shall contain "a statement of the objectives sought by the proposed project." As set forth by the *State CEQA Guidelines*, the list of objectives that the County and Project applicant seeks to achieve for the Project is provided below.

1. Maintain an open space greenbelt around the developed area, with development located proximate to existing infrastructure and urban residential land uses;

2. Concentrate developed area on flatter topographic features;

3. Protect prominent and significant ridgeline between Mentryville and developed area;

4. Provide community character similar to adjacent Stevenson Ranch neighborhoods;

5. Design development to be compatible with the sensitive biological resources present;

6. Design development density consistent with the adjacent urban residential neighborhood while preserving topographic slopes;

7. Design development to maintain the natural physical features of oak woodlands, prominent hillsides, and drainages by clustering of residential uses;

8. Design residential development with adequate emergency access for both the Project and the existing private properties southeast of the Project site;

9. Construct a significant number of single-family homes consistent with the Project site zoning, which would assist in providing for the County housing needs;

10. Improve Pico Canyon Road segment adjacent to the Project site consistent with Santa Clarita Valley Area Circulation Plan for streets and highways;

11. Enhance the biological resources of Wickham Canyon by planting indigenous native trees and shrubs;

12. Incorporate multiple fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards; and

13. Preserve and recognize oak trees as significant aesthetic and ecological resources.

2. ALTERNATIVES CONSIDERED AND REJECTED

In accordance with *State CEQA Guidelines* Section 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the *State CEQA Guidelines*, among the factors that may be used to eliminate alternatives from detailed consideration are the alternative's failures to meet most of the basic project objectives (outlined above), the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts.

Alternative Location. CEQA does not require that analysis of alternative sites always be included in an EIR. However, if all the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "*key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR*" [*State CEQA Guidelines* Section 15126.6(f)(2)].

Among the factors that may be considered when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site [*State CEQA Guidelines*, Section 15126.6 (f) (1)].

Alternative Location Alternative. Selection of another parcel in the general vicinity of the Project site would likely result in similar or greater impacts than development of the Project, such as the potential effects to traffic and circulation, biological resources, noise, aesthetics, air quality and climate change, and availability of utility infrastructure. Because it is unlikely that another site would substantially reduce significant environmental effects, this alternative was rejected from further consideration. In addition, the Project applicant does not own any other unentitled properties in the nearby local vicinity. Within unincorporated Los Angeles County and a five mile radius of the Project site, there is a scarcity of vacant, privately owned properties that are also zoned for residential uses, similarly sized to the Project site, and are proximate to existing public services with easy access from an existing public road.

3. ANALYSIS FORMAT

In accordance with *State CEQA Guidelines* Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be fewer, similar, or greater than the corresponding impacts of the project. Furthermore, each alternative is evaluated to determine whether the project objectives, as stated above, will be substantially attained by the alternative. The evaluation of each of the alternatives follows the process described below:

a. The net environmental impacts of the alternative after implementation of reasonable mitigation measures are determined for each environmental issue area analyzed in the EIR.

b. Post-mitigation significant and non-significant environmental impacts of the alternative and the project are compared for each environmental issue area. Where the net impact of the alternative will be clearly less adverse or more beneficial than the impact of the project, the comparative impact is said to be "less." Where the alternative's net impact will be clearly more adverse or less beneficial than the project, the comparative impact is said to be "greater." Where the impacts of the alternative and the project will be roughly equivalent, the comparative impact is said to be "similar."

c. The comparative analysis of the impacts is followed by a general discussion of whether the underlying purpose and basic project objectives are substantially attained by the alternative.

4. ALTERNATIVE ANALYSIS

Alternative 1 – No Project/No Development Alternative

Under the No Project/No Development Alternative, the 230.5-acre Project site would remain as it is today, consisting primarily of vacant and undeveloped terrain with several small to medium drainage courses and unimproved access roads and trails. The Project site would remain in its current condition of native and non-native habitats. The existing circulation system would remain in its current condition. There would be no wildfire protection infrastructure.

Environmental Impact Categories

Aesthetics

Because no development would occur under the No Project/No Development Alternative, no changes in aesthetics or land form modification would occur. Therefore, this Alternative would avoid impacts on aesthetics and land form modification. Since this Alternative would not have a substantial adverse effect on a scenic vista, degrade existing visual character or quality of the site and its surroundings, or be visible from or obstruct views from a regional riding or hiking trail, no impacts would occur in these regards. The Project's "less than significant" impacts for these regards would be avoided under this Alternative. Since no scenic resources occur on the site, similar "no impacts" would occur under this Alternative and the Project. As no shadows, light, or glare impacts would occur under this Alternative, the Project's "less than significant" light and glare impacts would be avoided under this Alternative. Overall, aesthetic impacts would be less under this Alternative than under the Project.

Air Quality

Because no development would occur under the No Project/No Development Alternative, no impacts on air quality would occur. Temporary air quality emissions during construction would be avoided, as would long-term air quality emissions associated with vehicular and operational emissions associated with development. For these reasons, air quality emissions would be eliminated relative to the Project, though the Project's air quality impacts would be less than significant. Impacts would be less under this Alternative than under the Project.

Biological Resources

No direct impacts on biological resources would occur under this Alternative. The site would remain vacant and undeveloped, and no ground disturbing activities would occur. Vegetation communities, including sensitive natural communities, existing on the site would remain undisturbed. Special-status plant and wildlife species would not impacted by habitat loss. The jurisdictional resources would not be impacted and wildlife movement corridors would be unchanged. No protected trees would be removed by this Alternative. In consideration of the direct impacts created by the Project, impacts to biological resources would be less under this Alternative than under the Project.

Cultural Resources

As there are no historic resources on the Project site, the No Project/No Development Alternative would result in similar "no impacts" when compared to the Project. This Alternative would not involve grading activities on the project site. Therefore, this Alternative would avoid the potentially significant impacts under the Project related to the discovery of unknown historical, archaeological and paleontological resources, as well as human remains. Accordingly, impacts to unknown archaeological and paleontological resources and human remains associated with this Alternative would be less than under the Project.

Geology and Soils

Because no development would occur under the No Project/No Development Alternative, there would be no potential for impacts associated with geologic hazards, including rupture of a known earthquake fault, seismic, liquefaction, lateral spreading, landslides, soil erosion and expansive soils hazards, and conflict with the Hillside Management Area Ordinance. Because the Project would result in less than significant impacts associated with geology and soils, impacts of this Alternative would be less than under the Project.

Greenhouse Gas Emissions

No development would occur under this Alternative, and as such no additional GHG emissions would result from its implementation. Therefore, this Alternative would not result in any adverse impacts related to GHG emissions or consistency with any applicable plan, policy, or regulation to reduce GHG emissions, and impacts would be less under this Alternative than under the Project.

Hazards and Hazardous Materials

Because no development would occur under the No Project/No Development Alternative, no impacts regarding hazardous materials would occur. Thus, impacts regarding hazardous materials would be less under this Alternative than under the Project. This Alternative would avoid the Project's less-than-significant impact regarding conflicts with an adopted emergency response/evacuation plan. The No Project/No Development Alternative would not provide protection from wildfires through the Project design feature of water storage tanks identified in Section 4.7 of this EIR.

Hydrology and Water Quality

Because no development would occur under the No Project/No Development Alternative, no impacts associated with hydrology, water quality and groundwater recharge would occur. While the Project would increase impervious surface area, implementation of construction and post-construction BMPs would be

implemented as Project design features consistent with applicable regulatory requirements, reducing potentially significant hydrology and water quality impacts to a less than significant level. Also, the BMPs would remove sediments that currently leave the site in stormwater runoff. Nonetheless, this Alternative would avoid the Project's less-than-significant impact on hydrology, water quality and groundwater recharge impacts and, as such, impacts would be less under this Alternative than under the Project.

Land Use and Planning

The No Project/No Development Alternative would not entail any approvals or physical improvements. As such, this Alternative would have no potential to result in conflicts with existing plans, policies, or regulations applicable to the project area. This Alternative would avoid the Project's less-than-significant impact regarding conflicts with applicable land use plans, policies and regulations. Therefore, no land use impact would occur and impacts would be less under this Alternative than under the Project.

Noise

Implementation of the No Project/No Development Alternative would not result in any physical changes to the environment, and therefore would not have any potential to generate noise or vibration beyond what currently exists. Because this Alternative would not result in any construction activities and would maintain the Project site in an undeveloped state, no impacts related to noise or vibration would occur. Therefore, noise and vibration impacts would be less under this Alternative than under the Project.

Public Services

Under the No Project/No Development Alternative, no change in the existing uses of the Project site would occur. No new on-site residential population would be generated. Thus, as compared with the Project, this Alternative would not increase the existing demand for fire protection services or fire flow, sheriff protection, schools, parks, or libraries. Since the No Project/No Development Alternative would not increase the demand for public services compared to existing conditions, the No Project/No Development Alternative would avoid the Project's less-than-significant impact on public services. Impacts relative to public services would not occur, and potential impacts for the No Project/No Development Alternative would be less than under the Project.

Transportation/Traffic

This Alternative would not result in generation of additional vehicle trips relative to existing conditions, as the Project site would remain vacant and undeveloped. As such, this Alternative would have no potential to affect the function of the local and regional traffic network, result in hazards associated with design features, or conflict with a CMP, plans, policies, or regulations related to alternative transportation. As such, traffic impacts under this Alternative are considered less than under the Project.

Impact Summary

A comparative summary of the environmental impacts associated with the No Project/No Development Alternative with the environmental impacts anticipated under the Project is provided in Table 5-1 at the end of this EIR section.

Relationship of the Alternative to Project Objectives

The ability of the No Project/No Development Alternative to meet the stated objectives of the Project is summarized below in Table 5-2 at the end of this EIR section. As this Alternative would not include any new development on the site, the Alternative would fail to achieve all of the Project's objectives.

Alternative 2 – "One Valley, One Vision" Alternative

The Project site is located within the Santa Clarita Valley Area Plan. Because the Project was originally submitted prior to the 2012 adoption of the "One Valley, One Vision" Plan, the proposed Project will be analyzed for consistency under the land use categories within the 1990 Santa Clarita Valley Area Plan that existed at the time of the original application. The Project site is zoned A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size), which was not changed with the adoption of the 2012 "One Valley, One Vision" Plan, and the relevant local area plan land use designations are U2 – Urban 2, HM – Hillside Management, and W – Floodway/Floodplain. The "One Valley, One Vision" Alternative would be consistent with the 2012 "One Valley, One Vision" Plan with land use categories of RL 5 (Rural Land 5; 60 acres) and RL 20 (Rural Land 20; 170 acres). The "One Valley, One Vision" Alternative could create up to 12 five-acre and eight 20-acre parcels with each lot's development potential being up to 3.5 acres.[5] The resulting 20-parcel subdivision would have a development footprint, inclusive of fuel modification, of approximately 70 acres, which would not necessarily be clustered. The remaining approximately 160.5 acres would be open space; however, this would not result in contiguous open space because an infrastructure roadway system linking the scattered residential parcels would result in a disconnected area only a portion of which would be contiguous open space. No provision for water storage tanks would be included in this Alternative, and a secondary emergency access would not be needed or proposed.

Environmental Impact Categories

Aesthetics

Because development of the "One Valley, One Vision" Alternative would result in 20 non-clustered single-family residential units, aesthetics and land form modification would occur over the majority of the property. Therefore, this Alternative would result in impacts to aesthetics and land form modification. This Alternative would also have a substantial adverse effect on a scenic vista, degrade existing visual character or quality of the site and its surroundings, and be visible from or obstruct views from a regional riding or hiking trail. Consequently, potentially significant impacts would occur in these regards. The proposed Project's "less than significant" impacts for these regards would be compounded under this Alternative because the residential units would not be clustered and landform alteration would be spread over much of the Project site. Although no scenic resources occur on the site, similar "no impacts" to those absent resources would occur under both this Alternative and the Project. Shadows, light, or glare impacts would occur under this Alternative, but the Project's light and glare impacts would not be avoided under this Alternative and could be greater than the proposed Project because development pad location would occur on ridgelines, exclusive of the western significant ridgeline, and appear more conspicuous. Overall, aesthetics impacts would be greater under this Alternative than under the Project.

[5] *60 acres/5 acre minimum lot size = 12 parcels plus 170 acres/20 acre minimum lot size = 8 parcels for a total of 20 parcels, each with 3.5 acres to develop, inclusive of fuel modification. 20 parcels X 3.5 acres = 70 acres. 230.5 acre site – 70 developed acres = 160.5 acres of potential open space. A 200-foot fuel modification radius circle results in an area of 2.88 acres; with a modest 1,700 square foot residence, a development area with fuel modification results in a 3.5 acre development footprint.*

Air Quality

Although the non-clustered development of the "One Valley, One Vision" Alternative would place fewer residential units over a greater portion of the Project site and access roadway grading would be scattered over much of the property, impacts on air quality during construction would be less than that of the proposed Project. Maximum daily regional and localized construction emissions would be less under this Alternative than the Project. The overall construction schedule of this Alternative would be anticipated to be shorter than that of the Project. Based on these considerations, the Project's "less than significant" impacts for construction-related air quality would be similar, but reduced under this Alternative.

This Alternative would result in 82 fewer single-family residences (102 single-family residences for the Project). With 82 fewer residences than the Project, the number of vehicular trips would proportionately decrease when compared to the Project. Mobile (vehicular) source emissions comprise the majority of a development project's long-term criteria air pollutant emissions; consequently, development of this Alternative would include a reduced number of dwelling units and the Project's "less than significant" operation-related air quality emissions and impacts would be proportionately less under this Alternative. Overall, due to the decreased daily operational emissions, the extent of exposure of pollutant emissions on the public, including sensitive receptors, would be considerably less under this Alternative. As with the Project, this Alternative would be consistent with the SCAQMD's AQMP. Further, as single-family uses under both this Alternative and the Project would not result in adverse odor impact, odor impacts would be generally similar under this Alternative as the Project.

Biological Resources

Direct impacts on biological resources would occur under the "One Valley, One Vision" Alternative. The fewer residential uses would be scattered over much of the Project site with an interconnecting access roadway resulting in greater habitat loss and fragmentation. Vegetation communities, including sensitive natural communities, existing on the site would be removed in a similar quantity as the Project because this Alternative would not consolidate fuel modification impacts through clustering. Special-status plant and wildlife species would experience greater impacts through habitat loss and fragmentation with the Alternative design resulting in less contiguous undeveloped areas. Impacts to jurisdictional resources would be greater under this Alternative than the Project since Wickham Canyon would include residential uses and associated access infrastructure. Wildlife movement would experience greater disruption under this Alternative than the Project because residential uses would not be clustered. Impacts to protected trees would be greater under this Alternative than the Project because oak trees within Wickham Canyon would be removed to provide access to portions of the Project site avoided by the proposed Project. In consideration of the direct impacts created by this Alternative, impacts to biological resources would be greater under this Alternative than under the Project.

Cultural Resources

As there are no historic resources on the Project site, the "One Valley, One Vision" Alternative would result in similar "no impacts" when compared to the Project. This Alternative would alter comparable areas of ground disturbance as the Project through grading of and fuel modification activities on the project site resulting in potential for impacts to unknown archaeological and paleontological resources, as well as human remains. Consequently, both this Alternative and the Project would require archaeological and paleontological monitoring (per the prescribed mitigation measures) by qualified experts to ensure that potentially significant impacts on unknown resources are reduced to a less than significant level.

Additionally, impacts on previously unknown human remains, under the Project and this Alternative, would be treated in the same manner consistent with applicable regulatory requirements and the prescribed mitigation measure. Therefore, this Alternative would avoid the potentially significant impacts under the Project related to the discovery of unknown historical, archaeological and paleontological resources, as well as human remains. Accordingly, impacts to unknown archaeological and paleontological resources and human remains associated with this Alternative would be less than under the Project. Therefore, impacts to archaeological and paleontological resources, as well as human remains, would be less under this Alternative when compared to the Project.

Geology and Soils

The amount of grading under the "One Valley, One Vision" Alternative would be less than that of the Project but would occur over a greater portion of the Project site resulting in a reduction of raw earthwork. This Alternative would develop 82 fewer residences compared to the Project. Therefore, the number or people potentially exposed to seismic or geologic hazards would be considerably fewer under this Alternative than compared to the Project. All applicable regulatory requirements and incorporation of the recommendations in the Geotechnical Evaluation and the 100-Scale Plan Review identified for the Project would still be applicable under this Alternative in order to reduce impacts to a less than significant level. Overall, due to the decreased number of people exposed to seismic and geologic hazards, impacts would be less under this Alternative than under the Project. With regards to hazards pertaining to soil erosion, the loss of topsoil, or expansive soils, this Alternative would develop a larger portion of the Project site resulting in the potential for soil erosion, loss of topsoil and expansive soil impacts to be greater under this Alternative than the Project.

Greenhouse Gas Emissions

As discussed under Air Quality above, the overall construction schedule of the "One Valley, One Vision" Alternative is conceptually anticipated to be shorter to that of the Project. Thus, GHGs generated during construction-related activities would be generally less than the Project. With 82 fewer residences than the Project, the number of vehicular trips and residences would considerably decrease when compared to the Project. Accordingly, GHG emissions and associated global climate change impacts from mobile (vehicular) sources and residential uses (i.e., fossil fuels burned for heat, the use of certain products that contain GHG) under this Alternative would be proportionately decreased under this Alternative.

Hazards and Hazardous Materials

The "One Valley, One Vision" Alternative and the Project both include development of residential uses that would not involve the routine transport, use, or disposal of significant amounts of hazardous materials. Any risk associated with ordinary household or general commercial cleaners, solvents, painting supplies, pesticides for landscaping and pool maintenance, etc. would be adequately reduced to a less than significant level through compliance with applicable regulatory requirements. During construction activities, to the extent required for remediation, any contaminated soils or materials removed from the site would occur in a similar manner as under the Project. As such, similar "less than significant impacts" regarding the routine transport, use, or disposal of hazardous materials would occur under this Alternative and the Project.

Similar to the Project, all oil-related and stained soil activities and prescribed project design features and mitigation measures would be the same as the Project. As such, impacts in this regard would be similar

under this Alternative and the Project. Under both this Alternative and the Project, there would be available capacity to accommodate the projected traffic volumes, in addition to emergency vehicles. Neither this Alternative nor the Project would conflict with an adopted emergency response/evacuation plan. Given the decrease in traffic and decreased potential for wildland fire hazards under this Alternative, it is concluded that impacts regarding emergency response/evacuation would be proportionally less under this Alternative than under the Project. However, because this Alternative would not construct water storage tanks that would assure sufficient water fire flow in the event of wildfires, this Alternative would have a greater potential impact on fire-fighting capabilities resulting from the unreliability of fire flow. For these reasons, this Alternative would result in a greater impact associated with wildland fire hazards compared to the Project.

Hydrology and Water Quality

Under the "One Valley, One Vision" Alternative, there would be a smaller amount of impervious surface compared to the Project. This Alternative would include 82 fewer residences than the Project which would result in less potential for operational pollutant discharge compared to the Project. Project improvements and BMPs, similar to those described for the Project, would be required to accommodate increased stormwater runoff and for water quality treatment for this Alternative. However, because this Alternative would result in less residences and a corresponding lower potential for subsequent pollutant discharge due to the reduced number of units, water quality impacts would be less under this Alternative. Both this Alternative and the Project would be designed to maintain existing drainage patterns and pre-project flow rates per applicable regulations. Post development runoff volume under both this Alternative and the Project would be consistent with that allowed by applicable regulatory requirements such that on- or off-site significant drainage and hydrology impacts do not occur. In addition, consistent with applicable regulatory requirements, construction of either this Alternative or the Project would not increase stormwater flow rates or result in substantial erosion. As such, similar impacts regarding drainage and runoff patterns would occur under this Alternative and the Project. Similar to the Project, this Alternative would not result in an appreciable change in groundwater infiltration rates. Therefore, the Project and this Alternative would have similar "less than significant" impacts with respect to groundwater supplies or groundwater recharge.

Land Use and Planning

The "One Valley, One Vision" Alternative would be designed to be consistent with the 2012 "One Valley, One Vision" Plan land use categories of RL 5 (Rural Land 5; 60 acres) and RL 20 (Rural Land 20; 170 acres). This Alternative could create up to 12 five-acre and eight 20-acre parcels. As such, this Alternative would not conflict with current land use plans, although consistency with land use policies preserving Wickham Canyon and oak trees would not be leave this drainage in a natural condition or retain all but one oak tree. Additionally, the Project design would not be clustered and residential units would be spaced further apart than the adjacent Southern Oaks community. This Alternative would be comparable to the Project's less than significant impact regarding conflicts with applicable land use plans, policies and regulations. Therefore, land use impact would be less than significant under this Alternative and would be similar to that under the Project.

Noise

As the "One Valley, One Vision" Alternative would result in less grading quantity resulting from the fewer residential units, it can be expected that the maximum daily noise levels during grading activities under this

Alternative would be less than the Project. Additionally, construction noise and vibration impacts associated with the grading for water quality basins near Pico Canyon and the secondary emergency access road would not occur adjacent to existing Southern Oaks residences. As such, the extent of the Project's "less than significant" short-term noise impacts would be less under this Alternative.

As this Alternative proposes a fewer number of dwelling units, it is anticipated that peak noise levels in the developed area would be less. The decrease in dwelling units under this Alternative would also result in fewer additional vehicle trips compared to the Project; thus resulting in less mobile noise when compared to the Project. As such, the extent of the Project's less than significant long-term operational noise impacts would be less under the Alternative.

Public Services

This Alternative would result in 82 fewer single-family residences and approximately 246 fewer residents than the Project (102 single-family residences and approximately 306 residents for the Project). Accordingly, the demand for fire protection services, sheriff protection, schools, parks, or libraries generated at the Project site would be decreased by approximately 80 percent when compared with the Project due to the decrease of population. All regulatory requirements, required development fees, project design features, and additional mitigation measures identified for the Project would be applicable under this Alternative in order to reduce potential public service impacts to a less than significant level. Overall, due to the decreased demand for public services to serve the reduced overall development, impacts would be less under this Alternative than under the Project.

Transportation/Traffic

The "One Valley, One Vision" Alternative would result in a proportionate decrease in vehicular trips compared to the Project as it would result in 82 fewer residences and approximately 246 fewer residents than the Project. With fewer residences than the Project, the number of daily vehicular trips would be reduced. This Alternative would result in the generation of about 80% fewer vehicle trips relative to the proposed Project. As such, this Alternative would result in a decrease in traffic impacts on the local and regional traffic network compared to the Project. Based on the decrease in anticipated number of trips during peak hours generated under this Alternative, the LOS for study area intersections is anticipated to be less than that under the Project. However, this Alternative, like the Project, would implement mitigation to address the cumulative impact at the intersection of The Old Road and Stevenson Ranch Road by striping a westbound right-turn lane resulting in a total of two left-turn lanes, two through lanes, and one right-turn lane. Neither this Alternative nor the Project would significantly impact CMP facilities; CMP impacts would be less under this Alternative than under the Project. Neither this Alternative nor the Project would result in substantial hazards associated with design features, or conflict with plans, policies, or regulations related to alternative transportation. Similar "less than significant" impacts would occur under this Alternative and the Project in these regards. Like the Project, this Alternative would provide adequate emergency access consistent with County standards. As with the Project, there would be available capacity to accommodate the projected traffic volumes, in addition to emergency vehicles, under this Alternative. Thus, emergency access impacts under this Alternative would be less than significant and comparable to those under the Project.

Other CEQA Considerations (Energy)

Construction energy consumption would include use of diesel fuel and gasoline, water for fugitive dust control and negligible use of electricity. Emission control and anti-idling regulations compliance would result in less fuel combustion and energy consumption. Implementation of a construction traffic management plan would reduce traffic congestion, also resulting in energy conservation. Residential operational energy consumption would result from demand for electricity, natural gas, water supply and wastewater treatment, as well as fuels for residents' transportation. Although not a formal project design component, future residents would have the ability to install individual renewable energy sources such as solar photovoltaic panels to reduce energy consumption. Project operational consumption of gasoline would be less than 0.001 percent of statewide gasoline consumption, which represents a very small fraction of the state's annual fuel usage. Because the "One Valley, One Vision" Alternative would be approximately 80% smaller than the proposed Project, impacts from energy consumption would be less for this Alternative than for the Project, which is less than significant.

The Project would comply with the County's Green Building Ordinance (Chapter 22.52 – Part 20) of the County Zoning Code by conserving energy, water, natural resources, and promoting a healthier environment. Project landscaping installed would be compliant with the County's Drought Tolerant Landscaping Ordinance (Chapter 22.52 – Part 21) of the County Zoning Code. Further, the Project would be developed in compliance with all state and local regulations related to energy conservation.

Impact Summary

A comparative summary of the environmental impacts associated with the "One Valley, One Vision" Alternative with the environmental impacts anticipated under the Project is provided in Table 5-1 at the end of this EIR section. This "One Valley, One Vision" Alternative would have greater impacts on aesthetics, biological resources, soil erosion than the proposed Project to develop single-family dwellings due to the required five-acre and 20-acre minimum lot sizes. This Alternative design elimination of the water storage tanks would result in a greater impact on the reliability of fire flow capacity. Additionally, the Project proposes the preservation of approximately 165 acres of contiguous undeveloped, natural area within the southern and western portions of the Project site, whereas the "One Valley, One Vision" Alternative would provide approximately 160 acres of scattered open space, which would not be contiguous with the existing dedicated open space areas to the west and south. This Alternative would have similar impacts on hydrology based on the need for compliance with the same regulatory requirements. For other environmental factors, this Alternative would have less impact than that of the Project.

Lastly, it should be mentioned that western and southern portions of the Project site are not currently within any water district service area, and annexation to a water district would be necessary prior to development implementation, as the "One Valley, One Vision" Alternative would locate residences within these areas. Annexation to the Castaic Lake Water Agency service would require the Project proponent to guarantee a water source for the Project water supply before annexation could be approved by contracting with a water bank or water wholesaler for the permanent transference of water to the Castaic Lake Water Agency.

Relationship of the Alternative to Project Objectives

The ability of the "One Valley, One Vision" Alternative to meet the stated objectives of the Project is summarized below in Table 5-2 at the end of this EIR section. The One Vision One Valley Alternative would

not meet the objectives of clustering of residential uses, maintenance of contiguous open space area around the developed area, providing a neighborhood community character similar to adjacent Stevenson Ranch neighborhoods, designing development density consistent with the adjacent urban residential neighborhood while preserving topographic slopes, or incorporating multiple fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards. In addition, fewer residential units would be constructed to assist the County in meeting its housing needs, and less open space would be conserved than the proposed Project.

The "One Valley, One Vision" Alternative would not be a fiscally viable project because the number of residential homes would be insufficient to offset the cost to construct the Alternative.

Alternative 3 – "One Valley, One Vision" Density-Control Alternative

The proposed Project is analyzed for consistency under the land use categories within the 1990 Santa Clarita Valley Area Plan that existed at the time of the original application and is not required to be consistent with the 2012-adopted "One Valley, One Vision" Plan. The Project site zoning is A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size), which is the same under the 2012-adopted "One Valley, One Vision" Plan. The relevant local area plan land use designations for the proposed Project are U2 – Urban 2, HM – Hillside Management, and W – Floodway/Floodplain. Similar to the "One Valley, One Vision" Alternative, this "One Valley, One Vision" Density-Control Alternative would be consistent with the 2012 "One Valley, One Vision" Plan with land use categories of RL 5 (Rural Land 5; 60 acres) and RL 20 (Rural Land 20; 170 acres) but would also include a discretionary request as a density-controlled development requiring a conditional use permit. The "One Valley, One Vision" Density-Control Alternative could create 20, 15,000-square foot parcels with each lot's potential development footprint, inclusive of fuel modification being approximately 0.5 acre, but the subdivision design would cluster the parcels in the eastern portion, where access from Verandah Court is possible. The 20-parcel subdivision would have a development footprint, inclusive of fuel modification, of approximately 15 acres, which would be smaller than the "One Valley, One Vision" Alternative with overlapping fuel modification and less roadway infrastructure. Approximately 85 acres would be open space, which would remain undisturbed under the density control provisions, with about 130 acres being a remainder parcel in the southern and western portion of the Project site. No water storage tanks would be included in this Alternative, and no secondary emergency access would be needed or proposed. Indigenous plant species planting of Wickham Canyon would not be a component of this Alternative. With the 15,000-square foot parcel sizes, it presumed that personal equestrian uses would not be included within the individual parcel boundaries.

Environmental Impact Categories

Aesthetics

Because development of the "One Valley, One Vision" Density-Control Alternative would result in 20 clustered single-family residential units, land form modification would occur in the northeast portion of the property, adjacent to infrastructure and the Southern Oaks residential community. This clustering Alternative would result in land form modification impacts but would be somewhat smaller than the proposed Project and would not place water storage tanks on the western ridgeline. This Alternative would result in a lesser adverse effect on a scenic vista, would not substantially degrade the existing visual character or quality of the site and its surroundings, but would be visible, but not obstruct views from a regional riding or hiking trail (Pico Canyon Trail). However, potentially significant impacts would be less

than significant and would be less than the proposed Project. Because the residential units of the Alternative would be clustered, landform alteration would be confined to the eastern portion of the Project site and would be comparable in density with the Southern Oaks community. This Alternative would not impact on-site scenic resources, resulting in a no impact determination. Shadows, light, or glare impacts would occur under this Alternative would be comparable to that of the proposed Project impacts but would be lesser under this Alternative. Overall, aesthetics impacts would be less under this Alternative than under the proposed Project.

Air Quality

The clustered development of the "One Valley, One Vision" Density-Control Alternative would place fewer residential units over a smaller portion of the Project site and infrastructure would be more consolidated on the property, impacts to air quality during construction would be less than that of the proposed Project. Maximum daily regional and localized construction emissions would be less under this Alternative than the Project. The overall construction schedule of this Alternative would be anticipated to be shorter than that of the Project. Based on these considerations, this Alternative would have less than significant impacts for construction-related air quality and would be less than the proposed Project.

Like the "One Valley, One Vision" Alternative, this Alternative would result in 82 fewer single-family residences (102 single-family residences for the Project). With 82 fewer residences than the Project, the number of vehicular trips would be proportionately decreased when compared to the Project. Mobile (vehicular) source emissions comprise the majority of a development project's long-term criteria air pollutant emissions; consequently, development of this Alternative would include a reduced number of dwelling units and the Project's "less than significant" operation-related air quality emissions and impacts would be proportionately less under this Alternative. Overall, due to the decreased daily operational emissions, the extent of exposure of pollutant emissions on the public, including sensitive receptors, would be considerably less under this Alternative. As with the Project, this Alternative would be consistent with the SCAQMD's AQMP. Further, as single-family uses under both this Alternative and the Project would not result in adverse odor impact, odor impacts would be less under this Alternative as the Project.

Biological Resources

Direct impacts on biological resources would occur under the "One Valley, One Vision" Density-Control Alternative. The fewer residential uses would be clustered over a smaller portion of the Project site with the smaller development footprint causing lesser impacts for habitat loss and fragmentation. Vegetation communities, excluding most sensitive natural communities with the exception of foothill ash scrub, existing on the site would be removed in a lesser quantity as the Project because this Alternative would consolidate both the development footprint and fuel modification impacts through clustering. Special-status plant and wildlife species would experience lesser impacts, but not completely avoided, through habitat loss with this Alternative design resulting in a contiguous development area. Impacts to jurisdictional resources would be considerably less under this Alternative than the Project since both Wickham Canyon and Pico Canyon would be avoided with access coming from Verandah Court. Wildlife movement would experience less disruption under this Alternative than the Project because residential uses would be clustered into a smaller footprint on the eastern portion of the Project site. Impacts to protected trees would be less under this Alternative than the Project because oak trees would have no impact from the Alternative design, although a few southern California black walnut trees may still be impacted within Wickham Canyon. About 85 acres would remain as undeveloped open space with another approximately 130 acres in the southern and western

portion of the Project site being a remainder parcel. In consideration of the direct impacts created by this Alternative, impacts to biological resources would be less under this Alternative than under the Project.

Cultural Resources

As there are no historic resources on the Project site, the "One Valley, One Vision" Density-Control Alternative would result in similar "no impacts" when compared to the Project. This Alternative would alter lesser areas of ground disturbance as the Project through grading of and fuel modification activities on the Project site resulting in less potential for impacts to unknown archaeological and paleontological resources, as well as human remains. However, both this Alternative and the Project would require archaeological and paleontological monitoring (per the prescribed mitigation measures) by qualified experts to ensure that potentially significant impacts on unknown resources are reduced to a less than significant level. Additionally, impacts on previously unknown human remains, under the Project and this Alternative, would be treated in the same manner consistent with applicable regulatory requirements and the prescribed mitigation measure. Therefore, this Alternative would avoid the potentially significant impacts under the Project relating to the discovery of unknown historical, archaeological and paleontological resources, as well as human remains. Accordingly, impacts to unknown archaeological and paleontological resources and human remains associated with this Alternative would be less than under the Project. Therefore, impacts to archaeological and paleontological resources, as well as human remains, would be less under this Alternative when compared to the Project.

Geology and Soils

The amount of grading under the "One Valley, One Vision" Density-Control Alternative would be less than that of the Project and would occur over a smaller portion of the Project site resulting in a reduction of raw earthwork. This Alternative would develop 82 fewer residences compared to the Project. Therefore, the number or people potentially exposed to seismic or geologic hazards would be considerably fewer under this Alternative than compared to the Project. All applicable regulatory requirements and incorporation as project design features of the recommendations in the Geotechnical Evaluation and the 100-Scale Plan Review identified for the Project would still be applicable under this Alternative in order to reduce impacts to a less than significant level. Overall, due to the reduced number of people exposed to seismic and geologic hazards, impacts would be less under this Alternative than under the Project. With regards to hazards pertaining to soil erosion, the loss of topsoil, or expansive soils, this Alternative would develop a smaller portion of the Project site resulting in the potential for soil erosion, loss of topsoil and expansive soil impacts to be lesser under this Alternative than the Project.

Greenhouse Gas Emissions

As discussed under Air Quality above, the overall construction schedule of the "One Valley, One Vision" Density-Control Alternative is conceptually anticipated to be shorter to that of the Project. Thus, GHGs generated during construction-related activities would be generally less than the Project. With 82 fewer residences than the Project, the number of vehicular trips and residences would considerably decrease when compared to the Project. Accordingly, GHG emissions and associated global climate change impacts from mobile (vehicular) sources and residential uses (i.e., fossil fuels burned for heat, the use of certain products that contain GHG) under this Alternative would be proportionately decreased under this Alternative.

Hazards and Hazardous Materials

The "One Valley, One Vision" Density-Control Alternative and the Project both include development of residential uses that would not involve the routine transport, use, or disposal of significant amounts of hazardous materials. Any risk associated with ordinary household or general commercial cleaners, solvents, painting supplies, pesticides for landscaping and pool maintenance, etc. would be adequately reduced to a less than significant level through compliance with applicable regulatory requirements. During construction activities, to the extent required for remediation, any contaminated soils or materials removed from the site would occur in a similar manner as under the Project. As such, similar "less than significant impacts" regarding the routine transport, use, or disposal of hazardous materials would occur under this Alternative and the Project.

Unlike the proposed Project, all oil-related and stained soil activities would be avoided and prescribed project design features and mitigation measures would be fewer than for the Project. As such, impacts in this regard would be less under this Alternative and the Project. Under both this Alternative and the Project, there would be available capacity to accommodate the projected traffic volumes, in addition to emergency vehicles. Neither this Alternative nor the Project would conflict with an adopted emergency response/evacuation plan. Given the decrease in traffic and decreased potential for wildland fire hazards under this Alternative, it is concluded that impacts regarding emergency response/evacuation would be proportionally less under this Alternative than under the Project. However, because this Alternative would not construct water storage tanks that would assure sufficient water fire flow in the event of wildfires, this Alternative could have a somewhat greater potential impact on fire-fighting capabilities resulting from the unreliability of fire flow. For this reason, this Alternative would result in a slightly greater impact associated with wildland fire hazards compared to the Project.

Hydrology and Water Quality

Under the "One Valley, One Vision" Density-Control Alternative, there would be a smaller amount of impervious surface compared to the Project. This Alternative would include 82 fewer residences than the Project which would result in less potential for operational pollutant discharge compared to the Project. Project improvements and BMPs, similar to those described for the Project, would be required to accommodate increased stormwater runoff and for water quality treatment for this Alternative. Because this Alternative would result in less residences and a corresponding lower potential for subsequent pollutant discharge due to the reduced number of units, water quality impacts would be less under this Alternative. Both this Alternative and the Project would be designed to maintain existing drainage patterns and pre-project flow rates per applicable regulations. Post development runoff volume under both this Alternative and the Project would be consistent with that allowed by applicable regulatory requirements such that on- or off-site significant drainage and hydrology impacts do not occur. In addition, consistent with applicable regulatory requirements, construction of either this Alternative or the Project would not increase stormwater flow rates or result in substantial erosion. As such, similar impacts regarding drainage and runoff patterns would occur under this Alternative and the Project. Similar to the Project, this Alternative would not result in an appreciable change in groundwater infiltration rates. Therefore, the Project and this Alternative would have similar "less than significant" impacts with respect to groundwater supplies or groundwater recharge.

Land Use and Planning

The "One Valley, One Vision" Density-Control Alternative would be designed to be consistent with the 2012 "One Valley, One Vision" Plan land use categories of RL 5 (Rural Land 5; 60 acres) and RL 20 (Rural Land 20; 170 acres). This cluster Alternative would create 20, 15,000-square foot parcels. As such, this Alternative would not conflict with current land use plans, and this Alternative would be consistent with land use policies preserving Wickham Canyon and oak trees, leaving this drainage in a natural condition or retain all oak trees. Additionally, the Project design would be clustered and residential units would be grouped proximate to the adjacent Southern Oaks community. However, this Alternative would deviate from the rural lands category of low-density residential uses on large lots, because the clustered design would not be characterized by rural development interspersed with natural open space. This Alternative would be comparable to the Project's less than significant impact regarding conflicts with applicable land use plans, policies and regulations. Therefore, land use impact would be less than significant under this Alternative and would be similar to that under the Project.

Noise

As the "One Valley, One Vision" Density-Control Alternative would result in less grading quantity resulting from the fewer residential units and the smaller development footprint, it can be expected that the maximum daily noise levels during grading activities under this Alternative would be less than the Project. Construction noise and vibration impacts associated with the grading would occur adjacent to existing Southern Oaks residences, and the access road grading would occur adjacent to existing Southern Oaks residences at Verandah Court. As such, the extent of the Project's "less than significant" short-term noise impacts would be less under this Alternative.

As this Alternative proposes a fewer number of dwelling units, it is anticipated that peak noise levels in the developed area would be less. The decrease in dwelling units under this Alternative would also result in fewer additional vehicle trips compared to the Project; thus resulting in less mobile noise when compared to the Project. As such, the extent of the Project's less than significant long-term operational noise impacts would be less under the Alternative.

Public Services

This Alternative would result in 82 fewer single-family residences and approximately 246 fewer residents than the Project (102 single-family residences and approximately 306 residents for the Project). Accordingly, the demand for fire protection services, sheriff protection, schools, parks, or libraries generated at the Project site would be decreased by approximately 80 percent when compared with the Project due to the decrease of population. All regulatory requirements, required development fees, and project design features for the Project would be applicable under this Alternative in order to reduce potential public service impacts to a less than significant level. Overall, due to the decreased demand for public services to serve the reduced overall development, impacts would be less under this Alternative than under the Project.

Transportation/Traffic

The "One Valley, One Vision" Density-Control Alternative would result in a proportionate decrease in vehicular trips compared to the Project as it would result in 82 fewer residences and approximately 246 fewer residents than the Project. With fewer residences than the Project, the number of daily vehicular trips would be reduced. This Alternative would result in the generation of about 80% fewer vehicle trips relative

to the proposed Project. As such, this Alternative would result in a decrease in traffic impacts on the local and regional traffic network compared to the Project. Based on the decrease in anticipated number of trips during peak hours generated under this Alternative, the LOS for study area intersections is anticipated to be less than that under the Project. However, this Alternative, like the Project, would implement mitigation to address the cumulative impact at the intersection of The Old Road and Stevenson Ranch Road by striping a westbound right-turn lane resulting in a total of two left-turn lanes, two through lanes, and one right-turn lane. Neither this Alternative nor the Project would significantly impact CMP facilities; CMP impacts would be less under this Alternative than under the Project. Neither this Alternative nor the Project would result in substantial hazards associated with design features, or conflict with plans, policies, or regulations related to alternative transportation. Similar "less than significant" impacts would occur under this Alternative and the Project in these regards. Like the Project, this Alternative would provide adequate emergency access consistent with County standards but would come through the Southern Oaks community as no direct access from Pico Canyon Road would be included. As with the Project, there would be available capacity to accommodate the projected traffic volumes, in addition to emergency vehicles, under this Alternative. Thus, emergency access impacts under this Alternative would be less than significant and comparable to those under the Project.

Other CEQA Considerations (Energy)

Construction energy consumption would include use of diesel fuel and gasoline, water for fugitive dust control and negligible use of electricity. Emission control and anti-idling regulations compliance would result in less fuel combustion and energy consumption. Implementation of a construction traffic management plan would reduce traffic congestion, also resulting in energy conservation. Residential operational energy consumption would result from demand for electricity, natural gas, water supply and wastewater treatment, as well as fuels for residents' transportation. Although not a formal project design component, future residents would have the ability to install individual renewable energy sources such as solar photovoltaic panels to reduce energy consumption. Project operation consumption of gasoline would be less than 0.001 percent of statewide gasoline consumption. Because the "One Valley, One Vision" Density-Control Alternative would be approximately 80% smaller than the proposed Project, impacts from energy consumption would be proportionately less for this Alternative than for the Project.

The Project and this Alternative would comply with the County's Green Building Ordinance (Chapter 22.52 – Part 20) of the County Zoning Code by conserving energy, water, natural resources, and promoting a healthier environment. The Project and Alternative landscaping installed would be compliant with the County's Drought Tolerant Landscaping Ordinance (Chapter 22.52 – Part 21) of the County Zoning Code. Further, the Project and this Alternative would be developed in compliance with all state and local regulations related to energy conservation.

Impact Summary

A comparative summary of the environmental impacts associated with the "One Valley, One Vision" Density-Control Alternative with the environmental impacts anticipated under the Project is provided in Table 5-1 at the end of this EIR section. This "One Valley, One Vision" Density-Control Alternative to develop 20 single-family dwellings 15,000-square foot lot sizes would have lesser impacts on all environmental factors than the proposed Project, with the exception of Hazards and Hazardous Materials, which would be slightly greater because of the lack of water storage tanks. The Alternative design elimination of the water storage tanks would result in a greater impact on the reliability of fire flow capacity. This Alternative would have

similar impacts on hydrology based on the need for compliance with the same regulatory requirements. Additionally, the Project proposes the preservation of approximately 165 acres of contiguous undeveloped, natural area within the southern and western portions of the Project site, whereas the "One Valley, One Vision" Density-Control Alternative would provide approximately 85 acres of contiguous undeveloped open space, but approximately 130 acres in the southern and western portion of the Project site would become a remainder parcel. Overall, this Alternative would have less impact than that of the Project.

Relationship of the Alternative to Project Objectives

The ability of the "One Valley, One Vision" Density-Control Alternative to meet the stated objectives of the Project is summarized below in Table 5-2 at the end of this EIR section. The "One Vision, One Valley" Density-Control Alternative would not meet the objectives of providing adequate emergency vehicle access for both the Project and the existing private properties southeast of the Project site because there would be no new secondary means of access nor a new water tank, designing development density consistent with the adjacent urban residential neighborhood while preserving topographic slopes, or incorporating multiple fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards. In addition, fewer residential units would be constructed to assist the County in meeting its housing needs than the proposed Project.

The "One Valley, One Vision" Density-Control Alternative would not be a fiscally viable project because the number of residential homes would be insufficient to offset the cost to construct the Alternative.

Alternative 4 – Reduced Density Alternative

The Reduced Density Alternative would reduce the overall development intensity by 26 percent relative to the proposed Project. This Reduced Density Alternative would allow for a maximum of 75 single-family dwellings and would exclude the emergency secondary fire access road. Lot size would be comparable to that of the proposed Project, ranging from 6,000 to 15,000 square feet and averaging about 10,000 square feet per lot. Both natural and landscaped open space would amount to approximately 200 acres. Total grading would amount to about 1,000,000 cubic yards of cut with an equal amount of fill materials. Like the proposed Project, this Alternative would be as a density-controlled development requiring a conditional use permit. Per the Los Angeles County, Code of Ordinances, Title 21, Subdivisions, Chapter 21.24, Design Standards, Part 1, Access, Section 21.24.020, Restricted residential access, a project is required to provide a secondary emergency vehicle access road if a project proposes more than 75 residential units within a street system that traverses a wildland area subject to hazard from brush or forest fire. As such, the secondary emergency vehicle access road would be eliminated from the Reduced Density Alternative, as it is not required. Additionally, indigenous plant species planting of Wickham Canyon would not be a component of this Alternative.

Environmental Impact Categories

Aesthetics

This Alternative would reduce the overall development to a maximum of 75 single-family dwellings and would exclude the emergency secondary fire access road. As such, the reduced density could be viewed as more visually compatible with the adjacent neighborhood; therefore, it would result in a less significant visual impact when compared to the Project. Further, as the emergency secondary fire access road would

not be developed under this Alternative, no visual quality/character or scenic view impacts would occur from the westerly view of Verandah Court. This Alternative would not have a substantial adverse effect on a scenic vista, degrade existing visual character or quality of the site and its surroundings, or be visible from or obstruct views from a regional riding or hiking trail. The Project's "less than significant" impacts for these regards would be similar, but reduced under this Alternative. Since no scenic resources occur on the site, similar "no impacts" would occur under this Alternative and the Project. As similar shadows, light, or glare impacts would occur under this Alternative, the Project's "less than significant" light and glare impacts would be similar, but reduced under this Alternative. Overall, aesthetics impacts would be less under this Alternative compared to the Project.

Air Quality

As this Alternative would reduce the overall development and exclude the emergency secondary fire access road, maximum daily regional and localized construction emissions would be less under this Alternative than the Project. As such, the overall construction schedule of this Alternative is conceptually anticipated to be shorter to that of the Project. Based on these considerations, the Project's "less than significant" impacts for construction-related air quality would be similar, but reduced under this Alternative.

This Alternative would result in 27 fewer single-family residences than the 102 single-family residences for the Project. With 27 fewer residences than the Project, the number of vehicular trips would decrease when compared to the Project. Mobile (vehicular) source emissions comprise the majority of a development project's criteria air pollutant emissions inventory and overall operational emissions. Because development of this Alternative would include a reduced number of dwelling units than the Project, the Project's "less than significant" operation-related air quality emissions and impacts would be proportionately less under this Alternative. Overall, due to the decreased daily operational emissions, the extent of exposure of pollutant emissions on the public, including sensitive receptors, would be proportionately less under this Alternative. As with the Project, this Alternative would be consistent with the SCAQMD's AQMP. Further, as single-family uses under both this Alternative and the Project would not result in adverse odor impact, odor impacts would be generally similar to the Project under this Alternative.

Biological Resources

Direct impacts to biological resources would occur under the Reduced Density Alternative. The fewer residential units would be clustered over a smaller area of the Project site, resulting in smaller habitat loss and less fragmentation. Vegetation communities, including sensitive natural communities, existing on the site would remain in greater quantity than the Project because this Alternative would avoid vegetation removal in the eastern area of the Project site with the elimination of the secondary emergency access road. Special-status plant and wildlife species would experience lesser impacts through habitat loss and fragmentation with this Alternative design, resulting in greater contiguous undeveloped areas to which wildlife may traverse. Impacts to jurisdictional resources would be less under this Alternative than the Project because Wickham Canyon would not be crossed for construction of the secondary emergency access. Wildlife movement would experience less disruption under this Alternative than the Project because Wickham Canyon would be altered only near the current confluence with Pico Canyon. Impacts to protected trees would be less under this Alternative than the Project because the one oak tree proposed for removal by the Project would be saved with this Alternative. In consideration of the direct impacts created by this Alternative, impacts to biological resources would be less under this Alternative than those caused by the Project.

Cultural Resources

As there are no historic resources on the Project site, the Reduced Density Alternative would result in similar "no impacts" when compared to the Project. Although the Project would alter a greater quantity of land than this Alternative, both would require archaeological and paleontological monitoring (per the prescribed mitigation measures) by qualified experts to ensure that potentially significant impacts on unknown resources are reduced to a less than significant level. Also, impacts on previously unknown human remains, under the Project and this Alternative, would be treated in the same manner consistent with applicable regulatory requirements and the prescribed mitigation measure. Nevertheless development of the 102 single-family residences and the emergency secondary fire access road under the Project would result in greater land disturbance and potential for impacts to unknown archaeological and paleontological resources, as well as human remains. Therefore, impacts to archaeological and paleontological resources, as well as human remains, would be less under this Alternative when compared to the Project.

Geology and Soils

As the emergency secondary fire access road would not be developed under this Alternative, the amount of grading and raw earthwork would be reduced when compared to the Project. Further, 27 fewer residences would be developed under this Alternative compared to the Project. Therefore, the number or people potentially exposed to seismic or geologic hazards would be lower under this Alternative than compared to the Project. All applicable regulatory requirements and incorporation of the recommendations in the Geotechnical Evaluation and the 100-Scale Plan Review identified for the Project would still be applicable under this Alternative in order to reduce impacts to a less-than-significant level. Overall, due to the decreased number of people exposed to seismic and geologic hazards, impacts would be less under this Alternative than under the Project. With regards to hazards pertaining to soil erosion, the loss of topsoil, or expansive soils, as this Alternative would not develop the emergency secondary fire access road, the potential for soil erosion, loss of topsoil and expansive soil impacts would be less under this Alternative than the Project.

Greenhouse Gas Emissions

As discussed under Air Quality above, the overall construction schedule of this Alternative is conceptually anticipated to be shorter to that of the Project. Thus, GHGs generated during construction-related activities would be generally less than the Project. With 27 fewer residences than the Project, the number of vehicular trips and residences would decrease when compared to the Project. Accordingly, GHG emissions and associated global climate change impacts from mobile (vehicular) sources and residential uses (i.e., fossil fuels burned for heat, the use of certain products that contain GHG) would be proportionately decreased under this Alternative.

Hazards and Hazardous Materials

This Alternative and the Project both include development of residential uses that would not involve the routine transport, use, or disposal of significant amounts of hazardous materials. Any risk associated with ordinary household or general commercial cleaners, solvents, painting supplies, pesticides for landscaping and pool maintenance, etc. would be adequately reduced to a less than significant level through compliance with applicable regulatory requirements. During construction activities, to the extent required for remediation, any contaminated soils or materials removed from the site would occur in a similar manner as

under the Project. As such, similar "less than significant" impacts regarding the routine transport, use, or disposal of hazardous materials would occur under this Alternative and the Project.

All oil-related and stained soil activities and prescribed project design features and mitigation measures would be the same as the Project. As such, impacts in this regard would be similar. Under both this Alternative and the Project, there would be available capacity to accommodate the projected traffic volumes, in addition to emergency vehicles. Neither this Alternative nor the Project would conflict with an adopted emergency response/evacuation plan. However, given the decrease in traffic and decreased potential for wildland fire hazards under this Alternative, it is concluded that impacts regarding emergency response/evacuation would be proportionally less under this Alternative than under the Project. Without the secondary emergency access road, residential units furthest from Pico Canyon Road may experience slightly longer times in reaching Pico Canyon Road for fire evacuation. But the County Fire Department uses the 75 residential units on a single means of access as being the upper limit for fire safety, with which this Alternative would be comply. For these reasons, this Alternative would result in a lesser impact associated with wildland fire hazards compared to the Project.

Hydrology and Water Quality

Under the Reduced Density Alternative, although there would be a similar amount of impervious surface compared to the Project in light of the reduced density within the Project site, this Alternative would include 27 fewer residences and exclude the construction of the emergency secondary fire access road, which would result in lesser potential for subsequent pollutant discharge compared to the Project. Improvements and BMPs, similar to those described for the Project, would be required to accommodate increased stormwater runoff or for water quality treatment for this Alternative. However, because this Alternative would result in fewer residences and a corresponding lower potential for subsequent pollutant discharge, water quality impacts would be proportionately less under this Alternative. Both this Alternative and the Project would be designed to maintain existing drainage patterns and pre-project flow rates per applicable regulations. Post development runoff volume under both this Alternative and the Project would be consistent with that allowed by applicable regulatory requirements such that on- or off-site significant drainage and hydrology impacts do not occur. In addition, consistent with applicable regulatory requirements, construction of either this Alternative or the Project would not increase stormwater flow rates or result in substantial erosion. As such, similar impacts regarding drainage and runoff patterns would occur under this Alternative and the Project. Similar to the Project, this Alternative would not result in a noticeable change in groundwater infiltration rates. Therefore, the Project and this Alternative would have similar less-than-significant impacts with respect to groundwater supplies and groundwater recharge.

Land Use and Planning

The Reduced Density Alternative would be designed to be consistent with the 1990 Santa Clarita Valley Area Plan, similar to the proposed Project, but with a maximum of 75 single-family dwellings. This Alternative would be consistent with the area's existing development pattern and similar to the Southern Oaks community to the east. Like the Project, this Alternative would be consistent with Plan policies in regard to the sensitivities of natural environmental systems, hazards and other constraints, and infrastructure service capacities by preserving approximately 170 acres of natural open space (approximately 74 percent of the Project site). This Alternative would be similar to the Project's less-than-significant impact regarding conflicts with applicable land use plans, policies, and regulations. Therefore, land use impact would be less than significant under this Alternative and would be similar to that under the Project.

Noise

As this Alternative would result in less overall grading due to the reduced development, it can be expected that the maximum daily noise levels during grading activities under this Alternative would be less than the Project. Further, given that this Alternative would not develop the emergency secondary fire access road, construction noise and vibration impacts associated with the road would not occur. As such, the extent of the Project's "less than significant" short-term noise impacts would be proportionately less under this Alternative.

As this Alternative proposes a lower number of dwelling units, it is anticipated that peak noise levels in the developed area would be less. The decrease in dwelling units under this Alternative would result in fewer additional trips compared to the Project, thus resulting in less mobile noise when compared to the Project. As such, the extent of the Project's less-than-significant long-term operational noise impacts would be less under the Alternative.

Public Services

This Alternative would result in 27 fewer single-family residences and approximately 81 fewer residents than the Project (102 single-family residences and approximately 306 residents for the Project). Accordingly, the demand for fire protection services, sheriff protection, schools, parks, and libraries generated at the Project site would be decreased by 26 percent when compared with the. Per the Los Angeles County Code of Ordinances, Title 21, Subdivisions, Chapter 21.24, Design Standards, Part 1, Access, Section 21.24.020, Restricted residential access, a project is required to provide a secondary emergency vehicle access road if a project proposes more than 75 residential units within a street system that traverses a wildland area subject to hazard from brush or forest fire. As such, the secondary emergency vehicle access road would be eliminated from the Reduced Density Alternative, as it is not required. Further, all regulatory requirements, required development fees, project design features, and additional mitigation measures identified for the Project would still be applicable under this Alternative in order to reduce impacts to a less-than-significant level. Overall, due to the decreased demand for public services to serve the reduced overall development, impacts would be less under this Alternative than under the Project.

Transportation/Traffic

This Alternative would result in a proportionate decrease in vehicular trips compared to the Project, as it would result in 27 fewer residences and approximately 81 fewer residents than the Project. With fewer residences than the Project, the number of daily vehicular trips is reduced. As such, this Alternative would result in a decrease in traffic impacts on the local and regional traffic network compared to the Project. Although an incremental decrease in anticipated number of trips during peak hours generated under this Alternative, the LOS for other study area intersections is anticipated to be similar to those under the Project. However, this Alternative, like the Project, would implement mitigation measures to address the cumulative impact at the intersection of The Old Road and Stevenson Ranch Road. This would be done by striping a westbound right-turn lane resulting in a total of two left-turn lanes, two through lanes, and one right-turn lane. Neither this Alternative nor the Project would significantly impact CMP facilities; CMP impacts would be similar under this Alternative and the Project. Accordingly, neither this Alternative nor the Project would result in substantial hazards associated with design features, or conflict with plans, policies, or regulations related to alternative transportation. Similar less-than-significant impacts would occur under this Alternative and the Project in these regards. As such, like the Project, this Alternative would provide adequate emergency access consistent with County standards. As with the Project, there would be available

capacity to accommodate the projected traffic volumes, in addition to emergency vehicles, under this Alternative. Thus, emergency access impacts under this Alternative would be less than significant and similar to those under the Project.

Other CEQA Considerations (Energy)

Construction energy consumption would include use of diesel fuel and gasoline, water for fugitive dust control, and negligible use of electricity. Emission control and anti-idling regulations compliance would result in less fuel combustion and energy consumption. Implementation of a construction traffic management plan would reduce traffic congestion, also resulting in energy conservation. Residential operational energy consumption would result from demand for electricity, natural gas, water supply and wastewater treatment, as well as fuels for residents' transportation. Although not a formal project design component, future residents would have the ability to install individual renewable energy sources such as solar photovoltaic panels to reduce energy consumption. Because the Reduced Density Alternative would be approximately 26% smaller in residential units than the proposed Project, impacts from energy consumption would be less for this Alternative than for the Project.

Impact Summary

A comparative summary of the environmental impacts associated with the Reduced Density Alternative with the environmental impacts anticipated under the Project is provided in Table 5-1 at the end of this EIR section. This Reduced Density Alternative would have lesser impacts for all environmental factors than the proposed Project, with the exception of hazards and hazardous materials and land use, because this Alternative would include 27 fewer residences. This Alternative would have similar impacts on hazards and hazardous materials and land use than the proposed Project. Additionally, this Alternative proposes the preservation of approximately 170 acres of contiguous undeveloped, natural area within the southern and western portions of the Project site, which is slightly more than the proposed Project.

Relationship of the Alternative to Project Objectives

The ability of the Reduced Density Alternative to meet the stated objectives of the Project is summarized below in Table 5-2 at the end of this EIR section. The Reduced Density Alternative would meet the majority of objectives with the exception of designing development density consistent with the adjacent urban residential neighborhood, providing adequate emergency vehicle access for both the Project and the existing private properties southeast of the Project site, no planting of Wickham Canyon with indigenous plant species, no secondary emergency access for the Project residents, and fewer fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards. In addition, fewer residential units would be constructed to assist the County in meeting its housing needs.

It should be noted that the Project applicant has a business policy to incorporate a second means of access in any development project located within a high fire hazard area. Consequently, this Alternative, as described above, is not a design that would be constructed by this Project applicant.

5. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e)(2) of the *State CEQA Guidelines* indicates that an analysis of alternatives to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR.

The *State CEQA Guidelines* also state that should it be determined that the No Project Alternative is the environmentally superior alternative; the EIR shall identify another environmentally superior alternative among the remaining alternatives. With respect to identifying an environmentally superior alternative among those analyzed in this EIR, the range of feasible alternatives to be considered includes Alternative 1, the No Project/No Development Alternative; Alternative 2, the "One Valley, One Vision" Alternative; Alternative 3, the "One Valley, One Vision" Density-Control Alternative; and Alternative 4, the Reduced Density Alternative.

Table 5-1, *Comparison of Impacts Associated with the Alternatives and Impacts of the Project*, provides a summary comparison of the impacts associated with each of the proposed alternatives with the impacts of the Project. The ability of the Alternatives to meet the stated objectives of the Project is summarized in **Table 5-2**, *Project Alternatives' Ability to Meet Project Objectives*. As summarized in Table 5-1, the No Project/No Development Alternative would result in reduced impacts for a greater number of issue areas when compared to the Project. However, it is acknowledged that this Alternative would result in greater potential fire hazard impacts than the Project. Nonetheless, the No Project/No Development Alternative would be considered the environmentally superior alternative. However, the *State CEQA Guidelines* specify that when the No Project/No Development Alternative is the environmentally superior alternative then the EIR must also identify an environmentally superior alternative among the other alternatives (*State CEQA Guidelines* Section15126.6(e)(2)). The "One Valley, One Vision" Density-Control Alternative is the environmentally superior alternative from among the other Alternatives. With 80 percent relative fewer residential units than the Project, the "One Valley, One Vision" Density-Control Alternative would have proportionally lesser impact than under the Project. However, this "One Valley, One Vision" Density-Control Alternative would not meet the objectives of incorporating multiple fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards, or to construct a significant number of new housing units to assist in providing for the County housing needs. In addition, the "One Valley, One Vision" Density-Control Alternative would not be a fiscally viable project because the number of residential homes would be insufficient to offset the cost to construct the Alternative.

Table 5-1

Comparison of Impacts Associated with the Alternatives and Impacts of the Project

	Project Impact	Alternative 1 No Project/ No Development	Alternative 2 "One Valley, One Vision"	Alternative 3 "One Valley, One Vision" Density-Control	Alternative 4 Reduced Density
Aesthetics					
Scenic Vistas	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Scenic Views	Less Than Significant	Less (No Impact)	Greater (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Scenic Resources	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Visual Character	Less Than Significant	Less (No Impact)	Greater (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Shadows, Light, or Glare	Less Than Significant	Less (No Impact)	Greater (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Air Quality					
Air Quality Plan Consistency	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Air Quality Standards	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Cumulatively Considerable Increase of any Nonattainment Criteria Pollutant	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Expose Sensitive Receptors to Substantial Pollutant Concentrations	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Odors	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)

Table 5-1 (Continued)

Comparison of Impacts Associated with the Alternatives and Impacts of the Project

	Project Impact	Alternative 1 No Project/ No Development	Alternative 2 "One Valley, One Vision"	Alternative 3 "One Valley, One Vision" Density-Control	Alternative 4 Reduced Density
Biological Resources					
Sensitive Plant and Wildlife Species	Less Than Significant With Mitigation	Less (No Impact)	Greater (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Sensitive Natural Communities	Less Than Significant With Mitigation	Less (No Impact)	Greater (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Wetlands and Jurisdictional Resources	Less Than Significant With Mitigation	Less (No Impact)	Greater (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Migratory and Nesting Bird Species	Less Than Significant With Mitigation	Less (No Impact)	Similar (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Protected Trees	Less Than Significant With Mitigation	Less (No Impact)	Greater (Less Than Significant With Mitigation)	Less (No Impact)	Less (Less Than Significant)
Cultural Resources					
Historic Resources	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Archaeological Resources	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Paleontological Resources	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Human Remains	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)

Table 5-1 (Continued)

Comparison of Impacts Associated with the Alternatives and Impacts of the Project

	Project Impact	Alternative 1 No Project/ No Development	Alternative 2 "One Valley, One Vision"	Alternative 3 "One Valley, One Vision" Density-Control	Alternative 4 Reduced Density
Geology and Soils					
Seismic and Geologic Stability Hazards	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Soil Erosion or Loss of Topsoil	Less Than Significant	Less (No Impact)	Greater (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Expansive Soils	Less Than Significant	Less (No Impact)	Greater (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Onsite Wastewater Treatment	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Conflict with Hillside Management Area Ordinance/County General Plan Conservation and Open Space Element	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)	Similar (Less Than Significant)
Greenhouse Gas Emissions					
GHG Emissions	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Plan Consistency	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Hazards and Hazardous Materials					
Hazardous Materials – Transport , Use, Disposal	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)	Similar (Less Than Significant)
Hazardous Materials – Risk of Upset	Less Than Significant With Mitigation	Less (No Impact)	Similar (Less Than Significant With Mitigation)	Similar (Less Than Significant With Mitigation)	Similar (Less Than Significant With Mitigation)
Hazardous Emissions or Materials	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)	Similar (Less Than Significant)

Table 5-1 (Continued)

Comparison of Impacts Associated with the Alternatives and Impacts of the Project

	Project Impact	Alternative 1 No Project/ No Development	Alternative 2 "One Valley, One Vision"	Alternative 3 "One Valley, One Vision" Density-Control	Alternative 4 Reduced Density
Existing On-Site Hazards	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Public Airport Hazard	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Private Airport Hazard	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Emergency Response Plan	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Wildland Fires	Less Than Significant With Mitigation (Beneficial Impact)	Greater (No Beneficial Impact)	Greater (Less Than Significant With Mitigation)	Similar (Less Than Significant With Mitigation)	Similar (Less Than Significant With Mitigation)
Residual Soil Toxicity	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Less (No impact)	Similar (Less Than Significant)
Hydrology and Water Quality					
Water Quality	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Groundwater Supplies	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)	Similar (Less Than Significant)
Drainage Patterns and Stormwater Drainage System	Less Than Significant with Mitigation	Less (No Impact)	Greater (Less Than Significant)	Less (Less Than Significant with Mitigation)	Less (Less Than Significant With Mitigation)
Onsite Wastewater Systems	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Flood Hazards	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Sieche, Tsunami and Mudflow Hazards	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)

Table 5-1 (Continued)

Comparison of Impacts Associated with the Alternatives and Impacts of the Project

	Project Impact	Alternative 1 No Project/ No Development	Alternative 2 "One Valley, One Vision"	Alternative 3 "One Valley, One Vision" Density-Control	Alternative 4 Reduced Density
Land Use and Planning					
Physically Divide an Established Community	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Plan Consistency	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)	Similar (Less Than Significant)
County Zoning Ordinance Consistency	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)	Similar (Less Than Significant)
Hillside Management Criteria and SEA Consistency	Less Than Significant	Less (No Impact)	Similar (Less Than Significant)	Similar (Less Than Significant)	Similar (Less Than Significant)
Noise					
On-Site Construction Noise	Less Than Significant with Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Off-Site Construction Noise	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Operational Noise	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Site Compatibility	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Public Airport Noise	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Private Airport Noise	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Vibration	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Public Services					
Fire Protection	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)

Table 5-1 (Continued)

Comparison of Impacts Associated with the Alternatives and Impacts of the Project

	Project Impact	Alternative 1 No Project/ No Development	Alternative 2 "One Valley, One Vision"	Alternative 3 "One Valley, One Vision" Density-Control	Alternative 4 Reduced Density
Sheriff Protection	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Schools	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Parks	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Libraries	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Other Public Facilities	No Impacts	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Traffic/Transportation					
Circulation System	Less Than Significant With Mitigation	Less (No Impact)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)	Less (Less Than Significant With Mitigation)
Congestion Management Plan (CMP)	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Air Traffic Patterns	No Impact	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)	Similar (No Impact)
Traffic Hazards	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Emergency Access	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)
Conflict with adopted policies, plans, or programs	Less Than Significant	Less (No Impact)	Less (Less Than Significant)	Less (Less Than Significant)	Less (Less Than Significant)

Source: PCR Services Corporation, 2015

Table 5-2

Project Alternatives' Ability to Meet Project Objectives

Project Objective	Ability to Meet Project Goal/Objective				
	Proposed Project	Alternative 1 No Project/No Development	Alternative 2 "One Valley, One Vision"	Alternative 3 "One Valley, One Vision" Density-Control	Alternative 4 Reduced Density
1. Maintain an open space greenbelt around the developed area with development located proximate to existing infrastructure and urban residential land uses.	Fully Meets Objective	Does Not Meet Objective	Partially Meets Objective	Fully Meets Objective	Fully Meets Objective
2. Concentrate developed area on flatter topographic features.	Fully Meets Objective	Does Not Meet Objective	Partially Meets Objective	Fully Meets Objective	Fully Meets Objective
3. Protect prominent ridgelines and significant ridgeline between Mentryville and developed area.	Fully Meets Objective	Fully Meets Objective	Partially Meets Objective	Fully Meets Objective	Fully Meets Objective
4. Provide neighborhood community character similar to adjacent Stevenson Ranch neighborhoods.	Fully Meets Objective	Partially Meets Objective	Partially Meets Objective	Partially Meets Objective	Fully Meets Objective
5. Design development to be highly compatible with the sensitive biological resources present.	Fully Meets Objective	Does Not Meet Objective	Does Not Meet Objective	Fully Meets Objective	Fully Meets Objective
6. Design development density consistent with the adjacent urban residential neighborhood while preserving topographic slopes.	Fully Meets Objective	Does Not Meet Objective	Does Not Meet Objective	Fully Meets Objective	Partially Meets Objective
7. Design development maintaining the natural physical features of oak woodlands, prominent hillsides, and drainages by clustering of residential uses.	Fully Meets Objective	Does Not Meet Objective	Partially Meets Objective	Fully Meets Objective	Fully Meets Objective
8. Design residential development with adequate emergency vehicle access for both the Project and the existing private properties southeast of the Project site.	Fully Meets Objective	Does Not Meet Objective	Does Not Meet Objective	Partially Meets Objective	Partially Meets Objective

Table 5-2 (Continued)

Project Alternatives' Ability to Meet Project Objectives

Project Objective	Ability to Meet Project Goal/Objective				
	Proposed Project	**Alternative 1 No Project/No Development**	**Alternative 2 "One Valley, One Vision"**	**Alternative 3 "One Valley, One Vision" Density-Control**	**Alternative 4 Reduced Density**
9. Construct a significant number of single-family homes consistent with the Project site zoning to assist in providing for the County housing needs.	Fully Meets Objective	Does Not Meet Objective	Does Not Meet Objective	Does Not Meet Objective	Does Not Meet Objective
10. Improve Pico Canyon Road segment at the Project site consistent with Santa Clarita Valley Area Circulation Plan for streets and highways.	Fully Meets Objective	Does Not Meet Objective	Fully Meets Objective	Fully Meets Objective	Fully Meets Objective
11. Enhance Wickham Canyon by planting indigenous native trees and shrubs.	Fully Meets Objective	Does Not Meet Objective	Does Not Meet Objective	Partially Meets Objective	Partially Meets Objective
12. Incorporate multiple fire protection measures to safeguard the Project and the existing adjacent residential community from wildfire hazards.	Fully Meets Objective	Does Not Meet Objective	Does Not Meet Objective	Does Not Meet Objective	Partially Meets Objective
13. Preserve and recognize oak trees as significant aesthetic and ecological resources.	Fully Meets Objective	Fully Meets Objective	Partially Meets Objective	Fully Meets Objective	Fully Meets Objective

Source: PCR Services Corporation, 2015

6. Other Mandatory CEQA Considerations

6.0 OTHER MANDATORY CEQA CONSIDERATIONS

This section summarizes the findings with respect to growth inducing impacts; significant, unavoidable environmental impacts; irreversible environmental changes; potential secondary effects; and less than significant impacts of the Project.

1. GROWTH INDUCING IMPACTS

Section 15126.2 (d) of the *State CEQA Guidelines* requires agencies to address potential growth-inducing effects of their actions. Growth-inducing effects are defined as those effects that could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth-inducing impacts include the removal of obstacles to population growth (e.g., the expansion of a wastewater treatment plant allowing more development in a service area) and the development and construction of new service facilities that could significantly affect the environment individually or cumulatively. In addition, growth must not be assumed as beneficial, detrimental, or of little significance to the environment.

The Project Applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, two 250,000-gallon water tanks, a pump station, water quality treatment basins, and an emergency secondary fire access road within a 230.5-acre Project site located in an unincorporated section of Los Angeles County known as Stevenson Ranch. The proposed residential lots would occupy approximately 20.8 acres of the Project site. The remaining improved areas of the Project site would include 3.9 acres for the water tanks/pump station, 1.5 acres of water quality basins, 9.6 acres of public streets, and 1.4 acres for the emergency secondary fire access road. The Project Applicant also proposes the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. A single-family residential community, Southern Oaks, abuts the Project site on the east. The area to the west of the Project site is mostly undeveloped, but this area includes the remaining historic buildings of Mentryville and the Pico Canyon Oil Field Well No. 4. The Pico Canyon Trail, a proposed 5.62-mile trail mostly adjacent to Pico Canyon Road, would meander through Pico Canyon in areas generally to the east and southeast of the Project site. A 0.6-mile section of this trail currently exists, extending westward from the trailhead at Stevenson Ranch Parkway to current trail end at the Southern Oaks community. It is planned for this trail to eventually provide access to Mentryville. The areas directly to the north and south of the Project site are mostly undeveloped with moderate to steep variations in topography.

The Project site would, for the most part, be served by existing infrastructure (e.g., roads and utilities) and community service facilities (e.g., fire, sheriff, hospitals, schools, parks, and libraries). As part of the Project's circulation plan, one connection would be provided to Pico Canyon Road, as well a gated, emergency fire access road. Wastewater and water utility connections would be made to existing lines along Pico Canyon Road. The Project Applicant proposes two 250,000-gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline in Pico Canyon Road with a secondary point of connection at Verandah Court. The Preliminary Water System Design Report would list the design features that would ensure the required fire flow during a major wildfire incident. The Project Permittee would be responsible for funding any necessary water infrastructure upgrades and/or improvements to meet fire flow requirements. The County Sanitation Districts maintain Trunk Sewer lines along Orchard Village Road at Mill

Valley Road (Valencia, 24-inch), and in a private right of way southeast of the intersection of Orchard Village Road and Wiley Canyon Road (District No. 32 Main, Section 2, 18-inch), both approximately 3.5 miles to the east. The Project is located outside the boundaries of the Santa Clarita Valley Sanitation District and will require annexation into the District before sewage service can be provided. The approved Sewer Area Study prepared by Alliance Land Planning & Engineering, Appendix L of this EIR, proposes that the Project sewer flows would connect to the existing 15" VCP sewer pipe just downstream of the Project site in Pico Canyon Road. The necessary improvements would be verified through the permit approval process of obtaining a sewer capacity and connection permit from the Sanitation Districts subsequent to annexation. The Project would install water efficient plumbing fixtures to ensure the provision of wastewater services. Further, implementation of water conservation measures such as those required by Titles 20 and 24 of the California Administrative Code would ultimately reduce wastewater flows as well. The infrastructure improvements are not anticipated to be sized to accommodate additional future growth beyond that anticipated in the Los Angeles County General Plan Land Use Element such that substantial population growth would occur. That is, the improvements would be limited to that needed to accommodate the Aidlin Hills Project and potentially minor system upgrades to bolster services for existing customers and would not result in substantial growth-inducing impacts.

According to the Santa Clarita Valley Area Plan 2012, the population of the Santa Clarita Valley at full build-out would be approximately 460,000 to 485,000 residents, comprised of approximately 150,000 to 155,000 households. The Project would generate a new residential population of 306 residents.[1] Therefore, the direct population generated by the Project would be within the maximum population anticipated for the Project site within the Santa Clarita Valley Area Plan 2012 and would not result in substantial growth inducing impacts.

Overall, development of the proposed 102 dwelling units is presumed by land use classifications of the Los Angeles County General Plan. As the Project would be developed within the general parameters of the anticipated land uses, as discussed in Section 4.9, *Land Use/Planning*, the Project would not have a significant growth-inducing impact.

2. ENERGY

Section 21100(b) of the *State CEQA Guidelines* requires that an EIR include a detailed statement setting forth mitigation measures proposed to minimize a project's significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the *State CEQA Guidelines* states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the Project Description, Environmental Setting, and Impact Analysis portions of technical sections, as well as through mitigation measures and alternatives.

[1] *Based on average household size of 3.00 persons/household for Los Angeles County per the U.S. Census Bureau American Fact Finder. 102 single-family residences X 3.00 = 306.*

In accordance with Appendix F of the *State CEQA Guidelines,* this Draft EIR includes relevant information and analyses that address the energy implications of the Project. This section represents a summary of the Project's anticipated energy needs, impacts, and conservation measures. Information found herein, as well as other aspects of the Project's energy implications, are discussed in greater detail elsewhere in this Draft EIR, including in Chapter 2, *Project Description*, and Sections 4.6, *Global Climate Change*, and 4.12, *Traffic/Transportation*, of this Draft EIR.

Construction-Related Energy Consumption

Estimated Energy Consumption

As discussed in Chapter 2, *Project Description*, of the Draft EIR, the Project would entail an approximately 44-month construction period. Approximately 1,600,000 cubic yards of cut material would be generated, with all cut material being used as fill material within the site.

The grading, utilities, paving, and building construction phases would last for approximately 44 months. According to the California Emissions Estimator Model (CalEEMod), up to 90 vendor trucks would occur on a representative worst-case day during the building construction phase of construction. Conservatively assuming that the number of vendor truck trips during a representative worst-case day would occur every day throughout the building construction phase, approximately 69,570 total one-way trips would occur. Based on the number of truck trips described above, construction of the Project would use approximately 83,232 gallons of diesel fuel for vendor deliveries.[2]

Heavy-duty construction equipment associated with grading, utilities, paving, and building construction would include excavators, graders, tractors/loaders/backhoes, dozers, scrapers, air compressors, cranes, forklifts, generators, pumps, welders, rollers, trenchers and pavers. The majority of the equipment would likely be diesel-fueled; however, smaller equipment, such as air compressors and forklifts may be electric-, gasoline-, or natural gas-fueled. For the purposes of this assessment, it is assumed equipment would be diesel-fueled, due to the speculative nature of specifying the amounts and types of non-diesel equipment that might be used, and the difficulties in calculating the energy which would be consumed by this non-diesel equipment. Based on the number and type of construction equipment that would be used during Project construction, and based on the estimated duration of construction, the Project would use approximately 235,187 gallons of diesel fuel for heavy-duty construction equipment.[3]

The number of construction workers that would be required would vary based on the phase of construction and activity taking place. The transportation fuel required by construction workers to travel to and from the Project site would depend on the total number of worker trips estimated for the duration of construction activity. A 2009 study by the California Department of Transportation (Caltrans) found that the statewide average fuel economy for automobiles would be 22.513 miles per gallon in 2015.[4] Assuming construction worker automobiles have an average fuel economy consistent with the Caltrans study and given the total

[2] *Fuel consumption is estimated based on fuel consumption factors in the EMFAC2011 on-road vehicle emissions model for heavy-heavy-duty construction trucks and trip distances in the California Emissions Estimator Model (CalEEMod).*

[3] *Fuel consumption is estimated based on fuel consumption factors in the OFFROAD2011 emissions model and the equipment horsepower and load factor ratings in CalEEMod.*

[4] *California Department of Transportation, 2008 California Motor Vehicle Stock, Travel and Fuel Forecast, Table 7, (2009).*

vehicle miles traveled for construction workers estimated in CalEEMod of 3,264,106 based on the maximum projected number of workers during each phase, the Project would use approximately 144,988 gallons of fuel (primarily gasoline) for construction worker trips.

In 2012, California consumed a total of 337,666 thousand barrels of gasoline for transportation, which is equivalent to a total annual consumption of 14.1 billion gallons by the transportation sector. For diesel, California consumed a total of 72,945 thousand barrels for transportation, which is equivalent to a total annual consumption of 3 billion gallons by the transportation sector. Thus, approximately 82 percent of transportation fuel was gasoline and 18 percent of transportation fuel was diesel.

Based on the conservatively estimated fuel usage amounts presented above, construction of the Project would use approximately 144,988 gallons of gasoline and 318,419 gallons of diesel, assuming worker automobiles are gasoline fueled and heavy-duty construction equipment is primarily diesel-fueled over the 45-month construction period. The annual average fuel usage would be 38,663 gallons of gasoline and 84,912 gallons of diesel. To put these numbers into perspective, the estimated annual construction fuel usage would represent a very small fraction of the state's annual fuel usage (about 0.0003 percent of the statewide annual gasoline consumption and 0.003 percent of the statewide annual diesel consumption).

Construction equipment fuels (e.g., diesel, gasoline, natural gas) would be provided by local or regional suppliers and vendors. Electricity, when needed, would be supplied by the local utility provider, Southern California Edison, via existing connections. A temporary water supply, primarily for fugitive dust suppression and street sweeping, would also be supplied by the local provider, Valencia Water Company)

Electricity used during construction to provide temporary power for lighting and electronic equipment (e.g., computers, etc.) would generally not result in a substantial increase in on-site electricity use. Electricity use during construction would be variable depending on lighting needs and the use of electric-powered equipment and would be temporary for the duration of construction activities. Thus, electricity use during construction would generally be considered as negligible.

Energy Conservation: Regulatory Compliance

The Project would utilize construction contractors who demonstrate compliance with applicable California Air Resources Board (CARB) regulations governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. As discussed in Section 4.2, *Air Quality*, of this Draft EIR, CARB has adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. This measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. CARB has also approved the Truck and Bus regulation (CARB Rules Division 3, Chapter 1, Section 2025, subsection (h))[5] to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California; this regulation will be phased in, with full implementation by 2023. In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower. The regulation aims to reduce emissions by

[5] *California Air Resources Board, Final Regulation Order, Amendments to the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use On-Road Diesel-Fueled Vehicles, http://www.arb.ca.gov/msprog/onrdiesel/documents/TBFinalReg.pdf. Accessed August 2014.*

requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. Implementation began January 1, 2014, and the compliance schedule requires that best available control technology turnovers or retrofits be fully implemented by 2023 for large and medium equipment fleets and by 2028 for small fleets.

Compliance with the above anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy. It is not possible to accurately quantify the amount of energy that construction of a project would save by complying with these regulations due to the difficulties in estimating idling times and technology turnovers in the absence of the regulations. Nonetheless, idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

With respect to solid waste, the County of Los Angeles Construction and Demolition Debris Recycling and Reuse ordinance (Title 20, Division 4, Chapter 20.87) generally requires that at least 50 percent of construction and demolition debris be recycled or reused. The County is in the process of developing a roadmap to increase the target to 70 percent for mixed debris and 100 percent for asphalt and concrete. Overall, the County has proposed long-term disposal reduction targets of 80 percent diversion from landfills by 2025 and 95 percent by 2045. The Project would utilize construction contractors in compliance with applicable waste-reduction County ordinances. Through compliance with applicable City regulations and contracting with approved waste haulers, the Project would achieve, at a minimum, the required 50 percent or more waste recycling and reuse rate for construction and demolition debris

Energy Conservation: Mitigation Measures

The following mitigation measure, set forth in Section 4.12, *Traffic/Transportation*, of this Draft EIR, would minimize construction worker travel and construction equipment transport to and from the Project site, and would help ensure efficient construction deliveries, reducing associated fuel consumption.

Construction Traffic Management Plan

Implementation of the Project would include the implementation of a Construction Staging and Traffic Management Plan. The Plan would specify construction staging areas and other requirements to minimize adverse impacts to the local and regional traffic system throughout construction. The Construction Staging and Traffic Management Plan would save energy by minimizing disruptions to traffic congestion and traffic flow caused by trucks and heavy-duty equipment at or near the Project site. It is not possible to accurately quantify the amount of energy that construction of a project would save by implementing a Construction Staging and Traffic Management Plan due to the difficulties in estimating the level of traffic disruptions in the absence of the Plan. The specific requirements that would, at a minimum, be included in the Construction Staging and Traffic Management Plan are provided in Mitigation Measure 4.12-1 in Section 4.12, *Traffic/Transportation*, which is reproduced below.

> **Mitigation Measure 4.12-1** Prior to the issuance of an encroachment permit within the public right-of-way, the Permittee, in coordination with the Los Angeles County DPW, shall devise a Traffic Control Plan to be implemented during construction of the Project. The Traffic Control Plan shall identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of construction

activities associated with the Project improvements for Pico Canyon Road. The Traffic Control Plan shall be subject to final approval by the Los Angeles County DPW.

Operation and Maintenance Energy Consumption

The Project would result in the development of 102 single family homes and supporting infrastructure (e.g., utilities, streets). The Project site would be located near other existing residential, park, school, and neighborhood commercial uses, which would help to reduce regional vehicle miles traveled (VMT) for on-site residents.

Anticipated Energy Consumption

The daily operation of the Project would generate demand for electricity, natural gas, and water supply, as well as generating wastewater requiring conveyance, treatment, and disposal off-site, and solid waste requiring disposal off-site. Southern California Edison would provide electricity to the Project Site and the Southern California Gas Company would provide natural gas. The Valencia Water Company would supply water to the Project Site. In the fiscal year ending December 2013, Southern California Edison clients consumed 87.4 billion kilowatt-hours (kWh) with an end-use sector breakdown of: 40.6 billion kWh for the commercial sector, 29.9 billion kWh for residential, 8.4 billion for industrial, and 8.3 billion for other sectors.[6] In 2013, the Southern California Gas Company's service area customers consumed approximately 5,200 billion therms of natural gas, equivalent to approximately 520 trillion kilo British thermal units (kBtu).[7]

Based on engineering estimates used as the basis for GHG emissions calculations, the initial operational year of the Project would have an electricity demand of approximately 1.11 million kWh, which is inclusive of approximately 0.40 million kWh for water supply and wastewater treatment. To put this number into perspective, this represents approximately 0.001 percent of the Southern California Edison network demand for the fiscal year ending December 2013, which is a very small fraction of the Southern California Edison network. Based on engineering estimates used as the basis for GHG emissions calculations, the initial operational year of the Project would have a natural gas demand of approximately 2.43 million kBtu per year. To put this number into perspective, this represents approximately 0.0000005 percent of the Southern California Gas Company network demand in 2013, which is a very small fraction of the Southern California Gas Company network.

Senate Bill 743, as discussed in Section 4.12 *Traffic/Transportation* of this Draft EIR, will result in a change in the metrics for determining impacts relative to the transportation network through the development of new methodologies for traffic analyses for CEQA documents. This promotes the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promotes the development of multimodal transportation system, and provides clean, efficient access to destinations. Upon adoption, the new requirements intended under SB 743 will apply immediately within transit priority areas and high quality

[6] *Edison International, Financial and Statistics Report, 2013, https://www.edison.com/content/dam/eix/documents/investors/sec-filings-financials/2013_Financial%26Statistical_Report.pdf. Accessed November 2014.*

[7] *California Gas and Electric Utilities, 2014 California Gas Report, http://www.socalgas.com/regulatory/documents/cgr/2014-cgr.pdf. Accessed July 2014.*

transit corridors and will apply statewide after January 1, 2016. Compliance with SB 743 is not discussed here because it is not yet in effect and the above discussion compares with SB 743 requirements.

Alternative Energy Considerations

The use of energy provided by alternative (i.e., renewable) resources, off-site and on-site, to meet the Project's operational demands is constrained by the energy portfolio mix managed by Southern California Edison, the service provider for the Project Site, and limitations on the availability or feasibility of on-site energy generation.

Southern California Edison is required to commit to the use of renewable energy sources for compliance with the California Renewable Energy Resources Act. Southern California Edison is required to meet the requirement to procure at least 33 percent of their energy portfolio from renewable sources by 2020 through the procurement of energy from eligible renewable resources, to be implemented as fiscal constraints, renewable energy pricing, system integration limits, and transmission constraints permit. Eligible renewable resources are defined in the 2013 Renewable Portfolio Standard to include biodiesel; biomass; hydroelectric and small hydro (30 Mega Watts [MW] or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal; landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas; multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and other renewables that may be defined later. In 2013, Southern California Edison served approximately 21.6 percent of its retail electricity sales with renewable power. This represents the available off-site renewable sources of energy that would meet Project demand.[8]

With respect to on-site renewable energy sources, because of the Project's location, there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydro, digester gas, fuel cells, geothermal energy, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels.

Solar and wind power represent variable-energy, or intermittent, resources that are generally used to augment, but not replace, natural gas-fired (or other non-renewable fuel) energy power generation, since reliability of energy availability and transmission is necessary to meet demand, which is constant.

Wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. The California Energy Commission (CEC) studied the State's high wind resource potential.[9] Based on a map of California's wind resource potential, the Project site is not identified as an area with wind resource potential. Wind resource areas with winds above 12 mph within Los Angeles County are located in relatively remote areas in the northwestern portion of the County.

Similarly, solar energy is highly variable in the Los Angeles area, particularly in proximity to the coastline where there is increased cloud cover, and is therefore not cost-effective as a primary source of energy. The

[8] *California Public Utilities Commission, California Renewables Portfolio Standard (RPS), http://www.cpuc.ca.gov/PUC/energy/Renewables/. Accessed February 2015.*

[9] *California Energy Commission. California Wind Resource Potential, http://www.energy.ca.gov/maps/renewable/Wind_Potential.pdf. Accessed August 2014.*

CEC has identified areas within the State with high potential for viable solar, wind, and geothermal energy production. The CEC rated California's solar potential by county using insolation values available to typical photovoltaic system configurations, as provided by the National Renewable Energy Laboratory. Although Los Angeles as a County has a relatively high photovoltaic potential of 3,912,346 megawatt-hours (MWh)/day, inland counties such as Inyo (10,047,177 MWh/day), Riverside (7,811,694 MWh/day), and San Bernardino (25,338,276 MWh/day) are more suitable for large-scale solar power generation.[10] In addition, most of the high potential areas of greater than 6 KWh/sqm/day in Los Angeles County are concentrated in the northeastern corner of the county around Lancaster, approximately 42 miles away from the Project Site. These facts alone do not preclude its use in the Project area or on the Project site. The Project would support on-site solar energy generation based on compliance with mandatory and certain voluntary measures in the California Green Building Standards Code, which include providing the required minimum building roof area for solar collectors or photovoltaic panels. As such, the Project would support decisions by future homeowners to install solar collectors or photovoltaic panels, and therefore development of the Project would encourage future homeowners to possibly install solar electrical systems. It is not possible to accurately quantify the energy savings from the use of solar collectors or photovoltaic panels since it is unknown how many future residents would choose to install the equipment.

Energy Conservation: Regulatory Compliance

The California Energy Commission first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code. The purpose of the California Green Building Standards Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."[11] As of January 1, 2011, the California Green Building Standards Code is mandatory for all new buildings constructed in the state. The California Green Building Standards Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.[12] The California Green Building Standards Code was most recently updated in 2013 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2014.[13] The Project would comply with the applicable provisions of Title 24 and the California Green Buildings Standards. According to the CEC, the Title 24 (2013) standards use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 Title 24 (2008) standards.[14]

---

[10] *California Energy Commission, California Solar Resources, April 2005, http://www.energy.ca.gov/2005publications/CEC-500-2005-072/CEC-500-2005-072-D.PDF. Accessed August 2014.*

[11] *California Building Standards Commission, 2010 California Green Building Standards Code, (2010).*

[12] *California Building Standards Commission, 2010 California Green Building Standards Code, (2010).*

[13] *California Building Standards Commission, 2010 California Green Building Standards Code, (2010).*

[14] *California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, May 2012, http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/2013_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed February 2015.*

With respect to solid waste, the Project is required to comply with applicable regulations, including those pertaining to waste reduction and recycling. Waste haulers serving the Project site would divert Project-generated municipal waste in accordance with applicable County ordinances.

Energy Conservation: Project Design Features

The Project would be designed to include green building, energy saving, and water saving measures and other sustainability features. Consistent with the County's Green Building Program, the Project would comply with mandatory and certain voluntary California Green Building Standards Code measures through incorporating strategies, which include pre-installation or installation of electric vehicle supply equipment (EVSE) for dwelling units, pursuant to California Green Building Standards Code Appendix A4 (Residential Voluntary Measures), installation of ENERGY STAR-rated appliances, providing the required minimum building roof area for solar collectors or photovoltaic panels, installation of low-water consumption irrigation systems, low-flow toilets, low-flow faucets, and low-flow showers, and other energy and resource conservation measures. In addition, the Project would also install HVAC systems sized and designed to meet or exceed the California Green Building Standards Code to maximize energy efficiency caused by heat loss and heat gain. As such, the Project would be designed to reduce wasteful, inefficient, and unnecessary consumption of energy.

Operation and Maintenance Energy Consumption

Estimated Energy Consumption

Operation of the Project would result in transportation energy use primarily from future residents traveling to and from the Project site. Transportation fuels, primarily gasoline and diesel, would be provided by local or regional suppliers and vendors. As discussed previously, in 2012, California consumed a total of 337,666 thousand barrels of gasoline for transportation, which is equivalent to a total annual consumption of 14.1 billion gallons by the transportation sector.[15] For diesel, California consumed a total of 72,945 thousand barrels for transportation, which equivalent to a total annual consumption of 3 billion gallons by the transportation sector.[16] Project-related vehicles would require a fraction of a percent of the total state's transportation fuel consumption. A 2009 study by Caltrans determined that the statewide average fuel economy for all vehicle types (automobiles, trucks, and motorcycles) in 2010 would be 18.2 miles per gallon.[17]

Based on the Project's estimated vehicle miles traveled of 3.3 million miles per year, and assuming the Project's mix of vehicle types (automobiles, trucks, and motorcycles) have an average fuel economy of 18.501 miles per gallon projected for 2015,[18] approximately 178,370 gallons of fuel would be required in a year. Assuming 82 percent of the fuel is gasoline, this would represent about 0.001 percent of the statewide gasoline consumption and about 0.001 percent of the statewide diesel consumption, which represents a very small fraction of the state's annual fuel usage. As stated in Section 4.6, *Greenhouse Gas Emissions*, the Project

[15] *U.S. Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2012, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=US. Accessed July 2014.*

[16] *U.S. Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2012, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_df.html&sid=US. Accessed July 2014.*

[17] *California Department of Transportation, 2008 California Motor Vehicle Stock, Travel and Fuel Forecast, (2009).*

[18] *California Department of Transportation, 2008 California Motor Vehicle Stock, Travel and Fuel Forecast, Table 7, (2009).*

would include pre-installation or installation of electric vehicle supply equipment (EVSE) for dwelling units pursuant to the California Green Building Standards Code, which would eliminate infrastructure roadblocks for future Project residents that purchase electric or electric-hybrid vehicles. As a result, the Project would support statewide efforts to improve transportation energy efficiency and reduce wasteful or inefficient transportation energy consumption with respect to private automobiles.

Alternative-Fueled Vehicles

Alternative-fueled, electric, and hybrid vehicles, to the extent these types of vehicles would be utilized by visitors to the Project Site, would reduce the Project's consumption of gasoline and diesel; however, the effect is anticipated to be minimal in current vehicle market. According to the Los Angeles Times, alternative-fueled vehicles make up approximately 2.3 percent of all vehicles registered in California.[19] The above transportation fuel estimates for the Project do not account for alternative-fueled, electric, and hybrid vehicles, which are more energy efficient vehicles. Thus, the assessment is a conservative estimate of transportation fuel consumption. If future Project residents or visitors utilize alternative-fueled vehicles, fuel savings could range from 0 to up to about 2 percent. Based on the estimate above, this would translate to a fuel savings between 0 to up to about 3.640 gallons of fuel per year.

3. SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the *State CEQA Guidelines* requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. Section 4, *Environmental Impact Analysis*, of this EIR analyzes the Project's potentially significant impacts with regards to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Greenhouse Gas Emissions, Hazards/Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Public Services, and Transportation/Traffic. As discussed therein, the Project would not result in any significant, unavoidable impacts with incorporation of the PDFs and after implementation of the prescribed mitigation measures.

4. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

According to Sections 15126(c) and 15126.2(c) of the *State CEQA Guidelines*, an EIR is required to address any significant irreversible environmental changes that would occur should the Project be implemented. As stated in *State CEQA Guidelines* Section 15126.2(c) indicates:

> *"[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter likely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."*

The Project would necessarily consume limited, slowly renewable, and non-renewable resources. This consumption would occur during the construction phase and would continue throughout its operational lifetime. Project development would require a commitment of resources that would include: (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the Project site. Project construction would require the consumption of resources that are not replenishable or which may renew so slowly as to be considered non-renewable. These resources would include the following construction supplies: certain types of lumber and other forest products; aggregate materials used in concrete and asphalt such as sand, gravel and stone; metals such as steel, copper, and lead; and petrochemical construction materials such as plastics; Fossil fuels such as gasoline and oil would also be consumed in the use of construction vehicles and equipment, as well as the transportation of goods and people to and from the Project site.

As discussed under the Energy section above, the resources that would be used during Project operation would be similar to those currently used within Los Angeles County. These would include electricity and natural gas, petroleum-based fuels required for vehicle-trips, fossil fuels, and water. Fossil fuels would represent the primary energy source associated with both construction and ongoing operation of the Project, and the existing, finite supplies of these natural resources would be incrementally reduced. Project operation would occur in accordance with Title 24, Part 6 of the California Code of Regulations, as well as numerous local regulations and proposed Project design features. These would establish conservation practices that would limit the amount of energy consumed by the Project. However, the energy requirements associated with the Project would, nonetheless, represent a long-term commitment of essentially non-renewable resources.

Limited use of potentially hazardous materials typical of residential uses, including household and vehicle maintenance materials (i.e., cleaning supplies, paints, fertilizers, oil, and grease) would be used and stored within the Project area. The use of these materials would be in small quantities and used, handled, stored, and disposed of in accordance with the manufacturer's instructions and applicable government regulations and standards. According to online resources provided by the State of California Division of Oil, Gas and Geothermal Resources (DOGGR), the Project site is not located in an oil field. Two plugged oil wells are identified as "dry holes" exist on the Project site but are located over 300 feet from any proposed residential pads planned for development by the Project. Although the Project would be located on a site that could include hazardous materials as a result of these oil wells, implementation of the prescribed mitigation measures and compliance with applicable regulatory requirements would serve to protect against significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In summary, Project construction and operation would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would incrementally limit the availability of these particular resource quantities for future generations or for other uses during the life of the Project. However, continued use of such resources would be on a very small scale and consistent with regional and local growth forecasts in the area. As such, although irreversible environmental changes would result from the Project, such changes would not be considered significant.

[19] *Los Angeles Times, Electric, hybrid car sales up, California auto emissions down, May 22, 2014, http://www.latimes.com/business/autos/la-fi-hy-electric-vehicle-sales-up-auto-emissions-down-20140521-story.html. Accessed August 2014.*

4. POTENTIAL SECONDARY EFFECTS

Section 15126.4(a)(1)(D) of the *State CEQA Guidelines* requires that, if mitigation measures would cause one or more significant effect in addition to those that would be caused by the Project as proposed, the effects of the measures must be discussed, but in less detail than the significant effects of the Project. With regard to this section of the *State CEQA Guidelines*, the Project's proposed mitigation measures that could cause potential impacts were evaluated. The following provides a discussion of the potential secondary effects that could occur as a result of the implementation of the Project mitigation measures, listed by environmental issue area. Only those EIR Sections that contain mitigation measures are addressed.

Aesthetics

No potentially significant aesthetic impacts have been identified and no mitigation measures are required. As such, there would be no potential for secondary impacts.

Air Quality

Mitigation Measure 4.2-1 requires the Permittee to submit evidence to the County Department of Regional Planning that off-road diesel-powered heavy-duty construction equipment greater than 50 horsepower used during grading activities of Project construction meet or exceed the CARB and USEPA Tier 3 off-road emissions standards for heavy-duty equipment. Mitigation Measure 4.2-2 requires the Permittee to submit evidence to the County Department of Regional Planning that all heavy-duty diesel-powered equipment in use and/or refueled at the Project site use of the most current grade of ultra-low sulfur diesel (ULSD) fuel approved by CARB and available in the South Coast Air Basin. Mitigation Measure 4.2-3 requires the Permittee to submit evidence to the County Department of Regional Planning that truck and equipment idling and queuing time is limited to five minutes or less when equipment is not in active use, in accordance with the CARB Airborne Toxic Control Measure. Mitigation Measure 4.2-4 requires the Permittee to utilize construction equipment with the minimum practical engine size (i.e., lowest appropriate horsepower rating for the intended job). Mitigation Measure 4.2-5 requires the Permittee to utilize construction equipment operating on-site that is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules. Mitigation Measure 4.2-6 requires the Permittee to prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices. Mitigation Measure 4.2-7 requires the use of all construction equipment to be suspended during a second-stage smog alert in the immediate vicinity of the Project site. These mitigation measures would directly reduce environmental impacts of the Project and would not result in secondary impacts through their implementation.

Biological Resources

Mitigation Measures 4.3-1 through 4.3-6 relate to biological resources. Mitigation Measure 4.3-1 requires recovery and transplantation of sensitive plant species. Mitigation Measure 4.3-2 requires avoidance of direct impacts to sensitive wildlife species by pre-construction monitoring. Mitigation Measure 4.3-3 requires restoration or enhancement of sensitive plant communities. Mitigation Measure 4.3-4 requires compliance with jurisdictional regulatory permitting through the CDFW, USACE and RWQCB. Mitigation Measure 4.3-5 provides avoidance of direct impacts to nesting birds. Mitigation Measure 4.3-6 requires the replacement of two oak trees for the authorization to remove on mature oak tree. Implementation of Mitigation Measures 4.3-1 through 4.3-6 would not result in adverse secondary impacts.

Cultural Resources

Mitigation Measures 4.4-1 through 4.4-4 relate to historic and archaeological resources. The mitigation measures generally require that an archaeologist monitor excavation activities. In the event that resources are discovered, the resources would be collected and preserved, as appropriate. Mitigation Measure 4.4-4 requires that a Native American tribal monitor be present during construction excavations. Implementation of Mitigation Measures 4.4-1 through 4.4-4 would not result in adverse secondary impacts.

Mitigation Measure 4.4-5 specifically requires that, if human remains are encountered during construction, excavation, and grading activities, no further disturbance occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. Implementation of Mitigation Measure 4.4-4 would not result in adverse secondary impacts.

Mitigation Measures 4.4-6 through 4.4-8 relate to paleontological resources. The mitigation measures generally require that a paleontologist monitor excavation activities. In the event that resources are discovered, the resources would be collected and preserved, as appropriate. Implementation of Mitigation Measures 4.4-6 through 4.4-8 would not result in adverse secondary impacts.

Geology/Soils

No mitigation measures are required for potential significant impacts related to geology and soils. Compliance with applicable regulatory requirements and incorporation of the recommendations in the Geologic Evaluation and 100-Scale Plan Review would reduce potentially significant impacts in this regard to a less than significant level and would not result in significant secondary impacts.

Hazards/Hazardous Materials

Mitigation Measure 4.7-1 requires the Permittee to provide the Los Angeles County Department of Public Works documentation that both former, on-site oil wells were properly abandoned in accordance with the applicable standards of DOGGR. Mitigation Measure 4.7-2 requires that petroleum hydrocarbon impacts soil shall be managed in accordance with an approved soils management plan (SMP), community health and safety plan, and worker health and safety plan. Mitigation Measure 4.7-3 requires that said contractor is aware of the area of petroleum staining and odors located on-site and west of Wickham Canyon so that the soils are handled and managed appropriately in accordance regulatory guidelines including, but not limited to, DOGGR, the Regional Water Quality Control Board, and/or LACFD. Mitigation Measure 4.7-4 requires the contractor to notify the site owners and/or their designated representative (i.e. general contractor or other designated party) if additional areas of impacted soil are discovered on-site so that such areas would also be handled and managed appropriately. Mitigation Measure 4.7-5 requires a Preliminary Water System Design Report or equivalent from the Valencia Water Company to be submitted and approved by the LACFD water liaison prior to the approval of the Tentative Map. This report would describe the water supply system, pump system, and fire flow and list the design features to ensure the required fire flow during a major wildfire incident. The Permittee shall be responsible for funding any necessary water infrastructure upgrades/improvements to meet fire flow requirements. Mitigation Measures 4.7-1 through 4.7-4 have been prescribed to ensure that no significant impacts would occur during grading and construction activities, as well as during Project operation, regarding hazardous materials. Mitigation Measure 4.7-5 has been prescribed to further ensure safety during wildland fire events, in addition to the PDFs that would be

incorporated into the Project. Implementation of these mitigation measures would not result in secondary impacts.

Hydrology/Water Quality

Mitigation Measures 4.8-1 and 4.8-2 relate to changes in drainage patterns and stormwater drainage. Mitigation Measure 4.8-1 requires compliance with County of Los Angeles Department of Public Works Hydraulic Design Manual, Sedimentation Manual, Low Impact Development Standards Manual, and consistency with an approved Drainage Concept/LID Plan. Mitigation Measure 4.8-2 requires placement of turf reinforcing mat along any grading within the on-site Pico Canyon and Wickham Canyon Creek reaches in which the floodplain would run along the graded slope. This measure is provided to lessen flow velocities within these drainages. Implementation of these mitigation measures would not result in adverse secondary impacts.

Noise

Mitigation Measure 4.10-1 and 4.10-2 require steps be taken by the construction contractor(s) to minimize noise generation from equipment operation during construction activities. As such, implementation of these construction-related mitigation measures would not result in physical changes to the environment that would result in secondary impacts.

Public Services

Fire Protection

No potentially significant fire protection impacts have been identified and no mitigation measures are required. As such, there would be no potential for secondary impacts.

Sheriff Protection

No potentially significant sheriff protection impacts have been identified and no mitigation measures are required. As such, there would be no potential for secondary impacts.

Schools

Mitigation Measures 4.11-1 through 4.11-4 address school traffic and pedestrian safety during construction activities associated with the Project. Specifically, Mitigation Measure 4.11-1 requires on-going communication regarding construction activities with school administration at the Pico Canyon Elementary School. Mitigation Measure 4.11-2 requires construction vehicles to not haul past the Pico Canyon Elementary School, except when school is not in session. If that is infeasible, construction vehicles shall not haul during school arrival or dismissal times. Mitigation Measure 4.11-3 requires crossing guards to be provided for pedestrian safety. Mitigation Measure 4.11-4 requires temporary traffic control, signage, and/or flaggers to be present on Pico Canyon Road to direct vehicular traffic and pedestrians around the construction site. Implementation of these mitigation measures provide safety for students and pedestrians near the Project area and would not result in secondary environmental impacts.

Libraries

No potentially significant library impacts have been identified and no mitigation measures are required. As such, there would be no potential for secondary impacts.

Traffic/Transportation

Mitigation Measure 4.12-1 requires the Permittee, in coordination with the County of Los Angeles, to prepare a Construction Staging and Traffic Management Plan to be implemented during construction of the Project. Per Mitigation Measure 4.12-2, the Permittee is to be responsible for the payment of a pro-rata share contribution of four percent to convert the shared through/right-turn lane to one through lane and one right-turn lane on the east approach of the intersection of The Old Road and Stevenson Ranch Parkway, resulting in a total of two left-turn lanes, two through lanes, and one right-turn lane. The Permittee is to further be responsible for the payment of a pro-rata share contribution of four percent to add an overlap phase for the westbound right turn. Appropriate construction practices intended to minimize impacts would be implemented. Implementation of the mitigation measures would ensure that the Project would not result in any significant impacts to traffic and would not result in significant secondary impacts.

5. LESS THAN SIGNIFICANT IMPACTS

Section 15128 of the *State CEQA Guidelines* states that an EIR shall contain a brief statement indicating reasons that various possible significant effects of a project were determined not to be significant and not discussed in detail in the Draft EIR. Accordingly, below are discussions of the potential environmental impact areas in which the characteristics of the Project made it clear that effects would not be significant and detailed evaluation in Section 4.0 of this Draft EIR was not warranted. These environmental impacts areas include Agriculture/Forest, Energy, Mineral Resources, Population/Housing, Recreation, and Utilities/Services. Please note, other environmental impact areas with effects where the characteristics of the Project made it clear that effects would not be significant are discussed in Section 4.0, but within their specific EIR sections.

Agriculture/Forest

Threshold: Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project site and most surrounding areas do not contain agricultural uses or related operations; refer to Figure 9.5, Agricultural Resource Areas Policy Map, of the General Plan 2035 (Draft 2014). The Project site is not located on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. Therefore, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. No impact would occur in this regard.

Threshold: Would the project conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?

The Project site is zoned A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size. Single-family residential uses are consistent with A-2 zoning. The Project site is not designated an Agricultural Opportunity Area and covered by a Williamson Act contract. Therefore, impacts would be less than significant.

Threshold: Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))?

The Project site is not zoned for forestry uses. No forest land or timberland zoning is present on the site or in the surrounding area. As such, the Project would not conflict with existing zoning for forest land or timberland and no impact would occur in this regard. Fifteen oak trees are on the Project site and a single oak—not part of an oak woodland—is proposed to be removed.

Threshold: Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No forest land exists on the Project site. As such, the Project would not result in the loss of forest land or conversion of forest land to non-forest use and no impact would occur in this regard.

Threshold: Would the project 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?

Since there are no agricultural uses or related operations and no forest land on or near the Project site, the Project would not involve the conversion of farmland or forest land to other uses, either directly or indirectly. No impacts to agricultural or forest land would occur.

Energy

Threshold: Would the project conflict with Los Angeles County Green Building Ordinance (L.A. County Code Title 22, Ch. 22.52, Part 20 and Title 21, § 21.24.440) or Drought Tolerant Landscaping Ordinance (L.A. County Code, Title 21, § 21.24.430 and Title 22, Ch. 22.52, Part 21)?

As discussed above under the Energy discussion, the Project would comply with the County's Green Building Ordinance (Chapter 22.52 – Part 20) by conserving energy, water, natural resources, and promoting a healthier environment. Project landscaping would be compliant with the County's Drought Tolerant Landscaping Ordinance (Chapter 22.52 – Part 21 of the County Zoning Code). Further, the Project would be developed in compliance with all state and local regulations related to energy conservation. Therefore, impacts would be less than significant.

Threshold: Would the project involve the inefficient use of energy resources (see Appendix F of the State CEQA Guidelines)?

As indicated above and under the Energy discussion, the Project would not involve inefficient use of energy resources. The proposed residences would include installation of energy efficient HVAC units, windows, light fixtures, low-flow plumbing fixtures, irrigation systems, and drought tolerant landscaping (where feasible). Therefore, the Project would not result in an inefficient use of energy resources, and impacts would be less than significant.

Mineral Resources

Threshold: Would the project 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?

The Project site is not located within a known mineral resource area, and no mineral resources are known on the Project site; refer to Figure 9.6, Natural Resource Areas, of the County General Plan 2035 (Draft 2014) and Exhibit CO-2, Mineral Resources, of the Santa Clarita Valley Area Plan 2012. There has been no mineral extraction (petroleum) on the Project site for nearly 100 years and there are no current plans for new extraction in the area. The updated Phase I (2014) archaeological report found petroleum staining and odors located west of Wickham Canyon in apparently disturbed soil, as also reported in the 1999 Phase I ESA. The lateral extent of the stained and odorous soil appeared to be 400 square feet in size and surficial in nature. Given the apparent limited extent of the impact soil, this area is not considered to be a significant environmental concern. Such soil can be removed from the Project site during the course of future grading activities for the Project. Therefore, impacts would be less than significant.

Threshold: Would the project 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?

The Project site is not located within a Mineral Resource Zone and there are no known designated locally-important mineral resources located on the Project site or in the vicinity of the Project site (refer to Figure 9.6, Natural Resource Areas, of the County General Plan 2035 [Draft 2014] and Exhibit CO-2, Mineral Resources, of the Santa Clarita Valley Area Plan 2012). Therefore, no impact to mineral resources would occur.

Population/Housing

Threshold: Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

According to the Santa Clarita Valley Area Plan 2012, population of the Santa Clarita Valley at full build-out of the uses shown on the Land Use Maps of the City's General Plan and the County's Area Plan would be approximately 460,000 to 485,000 residents, comprising of approximately 150,000 to 155,000 households. Construction of the 102 single-family residences on the Project site would generate a population of

approximately 306 persons.[20] Therefore, the direct population generated by the Project would be within the maximum population anticipated for the site within the Santa Clarita Valley Area Plan 2012. The direct population generated would also be consistent with the number of dwellings units allowed within the Santa Clarita Valley Area Plan 2012. Population projections within the 1990 Santa Clarita Valley Area Plan extended to 2010 and are no longer current. No more residential uses are currently proposed in the Project local area. Tract Map No 061996 to the north of the Project site does not include residential uses along Pico Canyon Road. Property immediately to the west is already publically-owned open space. Additionally, Newhall Ranch Specific Plan to the northwest of the Project site does not include residential or commercial land uses in the Project local area accessible from Pico Canyon Road. There are no current land use entitlement applications to the south of the Project site. Further, the Project Applicant proposes to widen the segment of Pico Canyon Road that generally traverses the northern boundary of the Project site. This roadway improvement is consistent with the County's designation of the roadway as a major arterial as well as the approved alignment of the road east of the site. In addition, the widening of Pico Canyon Road does not remove any obstacle to development to the west or north of the Project site, since these areas are either public open space or do not have active development entitlement applications. As such, Project implementation would not induce direct or indirect substantial population growth. A less than significant impact would occur in these regards.

Threshold: Would the project displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?

The Project site does not contain housing. Thus, development of the Project would not displace existing housing or people. No impact would occur in these regards.

Threshold: Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Refer to the response above. No impact would occur in these regards.

Recreation

Threshold: 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?

According to the County General Plan 2035 (Draft 2014), Chapter 10, Parks and Recreation Element, large areas of the County are underserved by parks and recreational facilities. The Element shows that the unincorporated areas of the County face a significant deficit in local parkland of 3,620 acres. Based on population projections, the unincorporated areas of the County would have deficits of 5,986 acres in local parkland and 5,046 acres in regional parkland by the year 2035 if no new parks are created. The Santa Clarita Valley Area Plan contains over 14,000 acres of parkland, including both local and regional parks

[20] *Based on average household size of 3.00 persons/household for the County of Los Angeles. 102 single-family residences X 3.00 = 306. U.S. Census Bureau, American Fact Finder.*

located within the City and the County. However, much of this parkland consists of natural open space and is not developed for active recreational uses. The County has an adopted standard of four acres of local parkland per 1,000 residents and six acres of regional parkland per 1,000 residents. These requirements may be met by dedication of land, payment of in lieu fees or a combination of both as defined by the County's Park Code. According to the Santa Clarita Valley Area Plan 2012, Chapter 2, Land Use Element, Section XI., Coordination of Land Use Plan with Resources and Other Agencies, based on these standards and without considering improvements or distribution of park property, it appears the planning area has adequate overall parkland acreage to serve the existing population.

The nearest parks, Pico Canyon Park and Jake Kuredjian Park are located approximately 0.5 miles and 0.7 miles east of the Project site, respectively. The Project would increase the amount of housing by 102 units and increase the population by approximately 306 additional residents. It is anticipated that residents of the Project would primarily utilize the nearby recreational facilities. However, the Project would satisfy the parkland dedication or fee requirements pursuant to the Quimby Act and the Residential Subdivision (Local Park Space Obligation – Formula), Residential Subdivisions (Provision or Local Park Sites) and Park Fees Required When (Computation and Use) (Chapter 21.24 – Part 4 and Chapter 21.28) of the County Code. Payment of these park impact fees would ensure impacts on parks are less than significant.

Threshold: Would the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?

The Project does not propose neighborhood or regional parks. Therefore, no impact would occur in this regard.

Threshold: Would the project interfere with regional open space connectivity?

The Project would not interfere with regional open space connectivity. The Project would essentially serve as an extension of the residential community to the east of the Project site. A Project objective is to maintain an open space greenbelt around the developed area, with development located proximate to existing infrastructure and urban residential land uses. The Project proposes the preservation of approximately 165 acres of undeveloped, natural area within the southern and western portions of the Project site. While the Project would develop currently undeveloped property, the clustered design would allow the proposed western and southern open space areas remain contiguous with existing undeveloped property or dedicated open space. No regional park areas are located to the east of the site. The Santa Clarita Woodlands Park is to the south and southeast of the site. Therefore, regional open space would remain connected to other regional open space areas and the project impact would be less than significant. While the Pico Canyon Trail meanders through Pico Canyon in areas generally to the east of the Project site and eventually to the west of the site, the proposed Project design would not interfere with the trail. Further, no other existing or planned designated public trails would be interfered with by the Project. Therefore, impacts would be less than significant.

Utilities/Service Systems

Threshold: Would the project exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards?

The Project site is within the jurisdiction of the Sanitation Districts of Los Angeles County and LARWQCB. Wastewater produced in the area is currently transported to, and treated at the Saugus Water Reclamation Plant ("WRP") and the Valencia WRP, which are operated by the Sanitation District pursuant to LARWQCB requirements; refer to Exhibit CO-3, Water Resources, of the Santa Clarita Valley Area Plan 2012. The Saugus WRP has an existing treatment capacity of 6.5 million gallons per day ("mgd"). The Valencia WRP has an existing treatment capacity of 21.6 mgd. Both plants are interconnected to form a regional treatment system known as the Santa Clarita Valley Joint Sewerage System ("SCVJSS") with a total existing design capacity of 28.1 mgd. According to the Final 2010 Santa Clarita Valley Urban Water Management Plan ("UWMP"), to accommodate anticipated growth in the Santa Clarita Valley, a 6.0-mgd expansion of the Valencia WRP is planned. With this expansion, the future capacity of the Valencia WRP would be 27.6 mgd. No expansion is planned at the Saugus WRP. The total current planned capacity for both WRPs is 34.1 mgd and current average flow processed is 19.8 mgd. During fiscal year 2011-2012, the Saugus WRP produced 4.96 mgd while the Valencia WRP produced 14.86 mgd for a total of 19.82 mgd of recycled water available for reuse with a remaining existing capacity of 8.28 mgd. The Project would result in an estimated average daily wastewater generation of approximately 26,520 gallons per day ("gpd")[21]. The proposed increase of 26,520 gpd that would result from Project implementation would represent 0.32 percent of the SCVJSS's total existing remaining capacity of 8.28 mgd. Thus, given the amount of wastewater generated by the Project, existing wastewater treatment capacity, and future wastewater treatment capacity set forth by the Urban Water Management Plan (UWMP), adequate wastewater capacity would be available to serve the Project.

The Project would connect with existing water and sewer lines along Pico Canyon Road that currently serve the single-family residential community directly to east. The Permittee proposes two 250,000-gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline in Pico Canyon Road with a secondary point of connection at Verandah Court. The Sanitation Districts have Trunk Sewer lines in Orchard Village Road at Mill Valley Road (Valencia, 24-inch), and in a private right of way southeast of the intersection of Orchard Village Road and Wiley Canyon Road (District No. 32 Main, Section 2, 18-inch), both approximately 3.5 miles to the east. The Project is located outside the boundaries of the Santa Clara Valley Sanitation District and will require annexation into the District before sewage service can be provided. The Sewer Area Study, Appendix L of this EIR, proposes that the Project sewer flows would connect to the existing 15" VCP sewer pipe just downstream of the Project site in Pico Canyon Road. The necessary improvements would be verified through the permit approval process of obtaining a sewer capacity and connection permit from the Sanitation Districts. The Project would install water-efficient plumbing fixtures to ensure the provision of wastewater services. Further, implementation of water conservation measures, such as those required by Titles 20 and 24 of the California Administrative Code, would ultimately reduce wastewater flows as well. Based on the above, impacts related to wastewater treatment requirements of the LARWQCB would be less than significant. This is the conclusion corroborated in the April 2014, Sewer Area Study, Stevenson Ranch, TM No. 52796, Santa Clarita, CA prepared by Alliance Land Planning & Engineering, Inc.

Threshold: Would the project create water or wastewater system capacity problems, 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?

Project implementation would result in increased water demand and wastewater generation beyond existing conditions. However, as discussed above, existing water and wastewater facilities are adequate to accommodate the demand generated by the Project. Thus, the Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. As a result, impacts would be less than significant.

Threshold: Would the project create drainage system capacity problems, or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Project construction would alter the quantity and composition of surface runoff through grading of site surfaces, construction of impervious streets, building development, introduction of urban pollutants, and irrigation for landscaped areas. A NPDES permit, which includes BMPs, would be required to reduce pollution levels in stormwater discharge in compliance with applicable water quality standards. Further, the Project would implement Low Impact Development ("LID") practices that prevent non-storm water discharges and encourage proper filtration of runoff to reduce runoff to the existing drainage system. The hydrology/drainage analysis is included in the EIR to demonstrate the Project's compliance with applicable stormwater runoff requirements. Compliance with these requirements would ensure the Project would not create drainage system capacity problems or result in the construction of new storm water drainage facilities which could cause a significant environmental effect. As a result, impacts would be less than significant.

Threshold: Would the project have sufficient reliable water supplies available to serve the project demands from existing entitlements and resources, considering existing and projected water demands from other land uses?

The Castaic Lake Water Agency ("CLWA") is the wholesale water supplier to the Valencia Water Company, the retail water purveyor that provides water to the Project site. Existing water resources include wholesale (imported) supplies, local groundwater, recycled water, and water from existing groundwater banking programs. Planned supplies include new groundwater production as well as additional banking programs. As concluded in the 2010 UWMP, the CLWA and the retail purveyors have adequate supplies to meet CLWA service area demands, which includes the Project, during normal, single-dry, and multiple-dry years throughout the 40-year planning period. The Project proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, water tanks, a pump station, water quality treatment basins, and a fire access road. Implementation of the Project, including landscaped slopes and common areas, would result in an estimated water average daily demand ("ADD") of 91,800 gpd and

[21] *Per the Sanitation Districts of Los Angeles County, Loading Rates Single family homes = 260 gpd X 102 single family homes = 26,520 gpd.*

maximum daily demand ("MDD") of 212,058 gpd.[22] Compliance with water conservation measures such as those required by Titles 20 and 24 of the California Administrative Code would help to reduce the Project's water demand. Construction of the Project would include all necessary on- and off-site water infrastructure improvements and connections to adequately connect to the County's existing water system. As the Project would not generate a water demand greater than that of 500 dwelling units, the Project would not be subject to Senate Bill ("SB") 610 which requires that a water supply assessment be conducted by the water service provider to determine if there is sufficient water supply to serve the Project during normal, single dry, and multiple dry water years. According to the Valencia Water Company, there is adequate water supply for the Project. Further, the Permittee shall pay the appropriate facility capacity fee required by the CLWA.[23] Therefore, sufficient water supplies would be available to serve the Project from existing entitlements and resources, and new or expanded entitlements would not be necessary. As a result, impacts would be less than significant.

The State Water Resources Control Board has released the formal emergency regulatory package for implementing the state's required 25% reduction in urban water use. Restrictions will be imposed on water suppliers to achieve the statewide 25% reduction in potable urban water usage and include prohibition of irrigation with potable water of ornamental turf in public street medians and of landscapes outside newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission. End-users are required to promote water conservation in order to prevent waste and unreasonable use of water. The Project Permittee will be required to comply with whatever regulations are in place with the water supplier at the time of project implementation.

Threshold: Would the project create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The Project would result in the development of the mostly vacant and undeveloped Project site. As such, utility services are not currently in place on the Project site, but are provided to the surrounding area. As discussed under the Energy section above, the Project would incrementally increase demand on utility services in the Project area but would be minimized by the Project's compliance to the County's Green Building Ordinance, which would require energy efficient measures. Therefore, a less than significant impact would occur in this regard.

Threshold: Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

The Waste Management Act ("AB 939") requires each California city and county to prepare, adopt, and submit to the California Integrated Waste Management Board ("CIWMB") a source reduction and recycling element ("SRRE") that demonstrates how the jurisdiction will meet AB 939's mandated diversion goals of 50

[22] *Cris Perez, Valencia Water Company, Email Correspondence, dated July 1, 2014,*

[23] *Cris Perez, Valencia Water Company, Email Correspondence, dated July 1, 2014.*

percent. Disposal of solid waste from the Project would be consistent with the policies and programs contained within the County of Los Angeles SRRE.

The Project site is located within the service area of the Sunshine Canyon Landfill and Chiquita Canyon Landfill; refer to Figure 13.1, Landfills, of the General Plan 2035 (Draft 2014). The Sunshine Canyon Landfill has a maximum permitted throughput of 12,100 tons per day ("tpd") with a remaining capacity of 96,800,000 cubic yards and an estimated closure date of December 31, 2037. The Chiquita Canyon Landfill has a maximum permitted throughput of 6,000 tpd with a remaining capacity of 22,400,000 cubic yards and an estimated closure date of November 24, 2019.

Construction of the Project would result in solid waste that would need to be disposed of in off-site facilities. The types of construction solid waste that would be generated include building materials, asphalt, concrete, metal, and landscaping material. All of the construction waste would be removed by a California State-licensed contractor and disposed of in accordance with applicable laws and regulations. As previously described above, AB 939 and the County of Los Angeles SRRE requires implementation of programs to recycle and reduce refuse at the source, to achieve a 50 percent reduction in solid waste being taken to landfills. In order to assist in meeting this goal, the Project would incorporate the collection of recyclable materials into the Project design and to require contractors to reuse construction supplies where practicable or applicable to the extent feasible. Therefore, solid waste generated during construction of the Project would result in a less than significant impact.

In addition, during future Project operation, the Project's residential uses (i.e., food, yard/garden debris, organic materials, and paper) would generate solid waste, which would be disposed of at the landfill(s) serving the County. The Project would provide recycling containers and appropriate storage areas for residential and public use to decrease the Project's solid waste disposal need. For the purpose of this analysis, the CIWMB disposal factor of 0.41 ton/capita/year for Los Angeles County is utilized.[24] Thus, based on an estimate of 306 residents associated with the Project, the Project is expected to generate a maximum waste disposal need of 125 tons per year.[25] This number represents an increase of less than one percent of the total remaining capacity at the Sunshine Canyon Landfill and Chiquita Canyon Landfill. Further, the proposed 102 single-family dwellings is consistent with the growth anticipated within the County's Countywide Integrated Waste Management Plan[26] and would not exceed projected landfill capacity. Thus, the capacity of these landfills would be able to accommodate the solid waste generated from operation of the Project. Therefore, solid waste generated during operation of the Project would result in a less than significant impact.

Threshold: Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The Project proposes to develop 102 single-family dwellings and associated supporting infrastructure. Solid waste generated by the Project would consist primarily of the standard organic and inorganic waste

[24] *CIWMB, "Residential Waste Disposal Rates," http://www.ciwmb.ca.gov/wastechar/DispRate.htm, accessed March 2014.*

[25] *CIWMB disposal factor of 0.41 ton/capita/year for Los Angeles County X 306 residents 125 tons per year.*

[26] *County of Los Angeles. 2013. Countywide Integrated Waste Management Plan, 2012 Annual Report. August 2013.*

normally associated with these uses. Substantial hazardous wastes are not anticipated. As noted above, the site is adequately served by County landfills. Additionally, per AB 939, the County has implemented a recycling program to divert at least 50 percent of all solid waste. As such, the Project would be required to comply with the County's SRRE program. The Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste handling, transport, and disposal during both construction and long-term operations. Therefore, a less than significant impact would occur in this regard.

7. List of Preparers

`

7.0 LIST OF PREPARERS

LOS ANGELES COUNTY

Mr. Tyler Montgomery
Los Angeles County Department of Regional Planning
Land Divisions Section
320 W. Temple Street
Los Angeles, CA 90012

EIR DOCUMENT PREPARATION

PCR Services Corporation
2121 Alton Parkway, Suite 100
Irvine, California 92606

- *Daryl Koutnik*, Principal, Biological and Environmental Compliance (Project Manager)
- *Mike Harden*, Principal Planner
- *Brian Allee,* Senior Planner
- *Jessie Barkley,* Senior Planner
- *Lorena Christman,* Senior Planner
- *Heidi Rous*, CPP, Principal/Director of Air Quality, Climate and Acoustics Services
- *Kyle Kim*, Ph.D., Senior Acoustic Engineer
- *Kyle Garcia*, Senior Archaeologist
- *Fatima Clark*, Archaeologist
- *Zeke Cooley*, Senior Biologist
- *Maile Tanaka*, Senior Biologist
- *Stephan Geissler*, Senior GIS Specialist
- *Denise Kaneshiro*, Graphics Specialist
- *Terry Keelan*, Publications Director

TECHNICAL CONSULTANTS

Advantage Environmental Consultants, LLC
145 Vallecitos De Oro, Suite 201
San Marcos, California 92069
(Phase I Environmental Site Assessment)

- *Daniel Weis, R.E.H.S,* Branch Manager, Western Regional Office
- *Todd Jacquay,* Project Manager, Western Regional Office

Allen Matkins Leck Gamble Mallory & Natsis LLP
1900 Main Street, 5th Floor
Irvine, California 92614-7321
(Legal Counsel)

- *John Condas, Esq.*, Partner

Alliance Land Planning and Engineering, Inc.
27451 Tourney Road, Suite 140
Valencia, California 91355
(Vesting Tentative Tract Map, Drainage Concept Plan/Hydrology Report, Sewer Area Study)

- *Erin (del Villar) Stanley*, Project Manager
- *Chet Van Horn, PE,* Project Engineer
- *Craig Whitteker, PE*, Project Engineer

Focus 360
27721 La Paz Road, Suite B
Laguna Niguel, California 92677
(Visual Simulations)

- *Collin Redden,* Project Manager

Landscape Development, Inc.
28447 Witherspoon Parkway
Valencia, California 91355
(Fuel Modification and Landscape Architecture)

- *Rich De Palma,* Principal of Landscape Architecture
- *Michael McDonnell, Landscape Architect*

R.T. Frankian & Associates
1329 Scott Road
Burbank, California 91504
(Geotechnical Evaluation)

- *Alan W. Rasplicka,* Principal Geotechnical Engineer
- *Timothy P. Latiolait,* Principal Engineering Geologist

Stantec
38 Technology Drive, Suite 100
Irvine, California 92618
(Traffic Impact Analysis)

- *Daryl Zerfass, PE, PTP*

Tebo Environmental Consulting, Inc.
300 E. Esplanade Drive, Suite 1660
Oxnard, California 93036
(Scoping Meeting Mediator)

- *Susan Tebo,* President

PROJECT APPLICANT

Lennar Homes
980 Montecito Drive, Suite 302
Corona, California 92879

- *Denise Williams*, Project Manager

This page intentionally blank.

8. References

8.0 REFERENCES

The following references were utilized in preparation of this EIR document.

Advantage Environmental Consultants, LLC, Phase I Environmental Site Assessment, March 2014.

Alliance Land Planning and Engineering, Inc., Hydraulic Study for Stevenson Ranch, County of Los Angeles, TR 052796, October 2014.

Alliance Land Planning and Engineering, Inc., Hydrology Report, County of Los Angeles, Aidlin Hills, Tentative Tract No. 52796, January 2015.

American Ornithologists Union, 2014, Checklist of North and Middle American Birds. www.aou.org, accessed June 2014.

Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule, Federal Register 72 (11 May 2007):26718-26721.

Baldwin, B.G., Editor, 2012, The Jepson Manual: Vascular Plants of California, second edition,. University of California Press, Berkley, California.

Bies & Hansen, Engineering Noise Control, 1988.

Bolt Beranek and Newman Inc., Noise Control for Buildings and Manufacturing Plants, 1981.

California 2010 Green Building Standards code, California Code of Regulations Title 24, Part 11.

California Air Pollution Control Officers Association, California Emissions Estimator Model User's Guide, 2013.

California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, (2005); South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, (2005).

California Air Resources Board, Ambient Air Quality Standards (6/4/13), http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, accessed September 2014.

California Air Resources Board, Area Designations Maps/State and National, http://www.arb.ca.gov/desig/adm/adm.htm, accessed September 2014.

California Air Resources Board, California Greenhouse Gas 2000-2012 Inventory by Scoping Plan Category - Summary, http://www.arb.ca.gov/cc/inventory/data/data.htm, accessed May and August 2014.

California Air Resources Board, Diesel and Health Research, http://www.arb.ca.gov/research/diesel/diesel-health.htm, accessed September 2014.

California Air Resources Board, Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, (2008), http://www.arb.ca.gov/ch/communities/ra/westoakland/documents/factsheet0308.pdf, accessed September 2014.

California Air Resources Board, Final Regulation Order, Amendments to the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use On-Road Diesel-Fueled Vehicles, http://www.arb.ca.gov/msprog/onrdiesel/documents/TBFinalReg.pdf, accessed August 2014.

California Air Resources Board, Final Report – Adequacy of California Ambient Air Quality Standards, http://www.arb.ca.gov/research/aaqs/caaqs/ad-aaqs/ad-aaqs.htm, accessed September 2014.

California Air Resources Board, First Update to the Climate Change Scoping Plan. Building on the Framework Pursuant to AB 32 The California Global Warming Solutions Act of 2006, (2014).

California Air Resources Board, Greenhouse Gas Inventory – 2020 Emissions Forecast, August 2013, http://www.arb.ca.gov/cc/inventory/data/forecast.htm, accessed October 2014.

California Air Resources Board, Nitrogen Dioxide – Overview, http://www.arb.ca.gov/research/aaqs/caaqs/no2-1/no2-1.htm, accessed September 2014.

California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003), http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_ act.pdf., accessed November 2013.

California Air Resources Board, Particulate Matter – Overview, http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm, accessed September 2014.

California Air Resources Board, Proposed Early Actions to Mitigation Climate Change in California, 2007.

California Air Resources Board, Staff Report – California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, 2007.

California Building Standards Commission, 2010 California Green Building Standards Code, 2010.

California Code of Regulations, Title 13, Sec. 2485, See CARB, ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, April 2008, http://www.arb.ca.gov/regact/idling/idling.htm, accessed October 2014.

California Code of Regulations Title 14, Chapter 3, Section 15000-15387.

California Department of Finance, Financial & Economic Data: Gross Domestic Product, California, http://www.dof.ca.gov/HTML/FS_DATA/LatestEconData/FS_Misc.htm, accessed August 2014. Amounts are based on current dollars as of the date of the report June 2014.

California Department of Fish and Game (CDFG), 2010, List of Vegetation Alliances and Associations, Vegetation Classification and Mapping Program, California Department of Fish and Game, Sacramento, CA. September 2010.

California Department of Fish and Game (CDFG) and the California Native Plant Society (CNPS), 2006, Vegetation Classification of the Santa Monica Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties, California. Sacramento, California. January 2006.

California Department of Fish and Wildlife (CDFW), 2013, California Natural Diversity Database (available by subscription) and Rarefind, CDFW: Sacramento, California, accessed January 2014.

California Department of Fish and Wildlife (CDFW), List of Vegetation Alliances and Associations. Vegetation Classification and mapping Program, Sacramento, CA. September 2010.

California Department of Fish and Wildlife (CDFW), Natural Diversity Database (CNDDB), January 14, 2014. RareFind: Database Record Search for Information on Threatened, Endangered, Rare, or Otherwise Sensitive Species and Communities.

California Department of Health Services, "Guidelines for the Preparation and Content of the Noise Element of the General Plan," 1976.

California Department of Transportation, 2008 California Motor Vehicle Stock, Travel and Fuel Forecast, Table 7, (2009).

California Department of Transportation, California Scenic Highway Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/, accessed December 16, 2014.

California Department of Transportation, Technical Noise Supplement (TeNS), September 2013.

California Department of Transportation, Transportation Related Earthborne Vibrations, page 4, February 2002.

California Energy Commission, Building Energy Efficiency Standards, Frequently Asked Questions, May 2012, http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/2013_Building_Energy_Efficiency_Standards_FAQ.pdf, accessed February 2015.

California Energy Commission, California Climate Change Center, Climate Change Scenarios for the San Francisco Region, CEC-500-2012-042, (2012).

California Energy Commission, California Climate Change Center, Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California, CEC-500-2012-007, (2012).

California Energy Commission, California Climate Change Center, Potential inundation due to rising sea levels in the San Francisco Bay region, CEC-500-2009-023-F, (2009).

California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/Chart.aspx, accessed December 2013.

California Energy Commission, California Solar Resources, April 2005, http://www.energy.ca.gov/2005publications/CEC-500-2005-072/CEC-500-2005-072-D.PDF, accessed August 2014.

California Energy Commission, California Wind Resource Potential, http://www.energy.ca.gov/maps/renewable/Wind_Potential.pdf, accessed August 2014.

California Energy Commission, Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004, 2006.

California Energy Commission, Potential Impacts of Climate Change on California's Energy Infrastructure and Identification of Adaptation Measures, CEC-150-2009-001, (2009).

California Energy Commission, Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006).

California Environmental Protection Agency, California Climate Action Team Report to the Governor and the Legislature, 2006.

California Environmental Protection Agency, California Climate Action Team Report to the Governor and the Legislature, 2010.

California Gas and Electric Utilities, 2014 California Gas Report, http://www.socalgas.com/regulatory/documents/cgr/2014-cgr.pdf, accessed July 2014.

California Health and Safety Code §§ 39650 et seq.

California Health and Safety Code. Chapter 6.95 Hazardous Materials Release Response Plans and Inventory. Article 1, Section 25501 (m).

California Herps. 2014, A Guide to the Amphibians and Reptiles of California, http://www.californiaherps.com/, accessed July 2014.

California Native Plant Society (CNPS), 2014, Inventory of Rare and Endangered Plants of California, California Native Plant Society: available online (http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi).

California Native Plant Society (CNPS), December 9, 1983, Revised June 2, 2001, CNPS Botanical Survey Guidelines.

California Native Plant Society (CNPS), January 14, 2014, Online Inventory of Rare and Endangered Plants of California, California Native Plant Society.

California Public Utilities Commission, California Renewables Portfolio Standard (RPS), http://www.cpuc.ca.gov/PUC/energy/Renewables/, accessed February 2015.

California State Water Resources Control Board website: http://www.swrcb.ca.gov/water_issues/programs/tmdl/integrated2010.shtml, accessed December 15, 2014.

Chartkoff, J. L. and K. K. Chartkoff, 1984 The Archaeology of California, Menlo Park: Stanford University Press.

CIWMB, "Residential Waste Disposal Rates," http://www.ciwmb.ca.gov/wastechar/DispRate.htm, accessed March 2014.

Clark, Fatima and Kyle Garcia, 2014, Phase I Cultural and paleontological Resources Assessment for the Proposed Aidlin Property Residential Project (Stevenson Ranch), County of Los Angeles, California, prepared for Lennar Homes, report on file at PCR Services Corporation.

Construction Noise, Worker's Compensation Board of BC, Engineering Section Report, February, 2000.

County of Los Angeles, August 23, 2011, Los Angeles County Oak Woodlands Conservation Management Plan, adopted by the Board of Supervisors.

Crain and Associates, Traffic Impact Report for Proposed 6250 Sunset Project, (2014).

De Ramus, Yolanda, Chief Deputy, LACPL, Letter Correspondence, May 19, 2014.

DTSC's EnviroStor database/website results for Stevenson Ranch accessed December 14, 2014: http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=&x=-119&y=37&zl=18&ms=640,480&mt=m&findaddress=True&city=stevenson%20ranch,%20ca&zip=&county=&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&ca_site=true&tiered_permit=true&evaluation=true&military_evaluation=true&school_investigation=true&operating=true&post_closure=true&non_operating=true.

Edison International, Financial and Statistics Report, 2013, https://www.edison.com/content/dam/eix/documents/investors/sec-filings-financials/2013_Financial%26Statistical_Report.pdf, accessed November 2014.

England, S. and S. Nelson, 1976, Land Capability/Suitability Study, Los Angeles County General Plan Revision Program, Significant Ecological Areas Report, Prepared for Los Angeles County Department of Regional Planning and Environmental Systems Research Institute.

Envicom, June 9, 2000, Wetland Delineation Report, The Aidlin Project, prepared for Gary M. Baker/Plan II.

Envicom, November 2005, Wickham Property Botanical Inventory 2005, prepared for Hummer Construction.

Environmental Laboratory, 1987, Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Erlandson, Jon M., Torben C. Rick, Terry L. Jones, and Judith F. Porcasi, 2007 One If By Land, Two If By Sea: Who Were the First Californians? In T. Jones & K. Klar (eds.), California Prehistory: Colonization, Culture, and Complexity, Pages 53-62. Alta Mira Press.

Fahrig, L. and G. Merriam, 1985, Habitat Patch Connectivity and Population Survival, Ecology. 66:1762-1768.

Federal Highway Administration, Roadway Construction Noise Model User's Guide, 2006.

Federal Register, Vol. 78, No. 123, June 26, 2013, 38223-38226.

Final Regulation Order, Amendments to the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use On-Road Diesel-Fueled Vehicles, http://www.arb.ca.gov/msprog/onrdiesel/documents/TBFinalReg.pdf, accessed September 2014.

Final Regulation Order, Regulation for In-Use Off-Road Diesel-Fueled Fleets, http://www.arb.ca.gov/regact/2010/offroadlsi10/finaloffroadreg.pdf, accessed September 2014.

Final Unincorporated Los Angeles County Community Climate Action Plan, County of Los Angeles, Department of Regional Planning, July 2014. http://planning.lacounty.gov/assets/upl/project/ccap_draft-201407.pdf, accessed August 2014.

Flood Insurance Rate Map 060370815F. Federal Emergency Management Agency. September 26, 2008.

Goldberg, Susan (editor), 2001 Metropolitan Water District of Southern California Eastside Reservoir Project: Final Report of Archaeological Investigations, prepared for Metropolitan Water District of Southern California, Los Angeles, Applied Earthworks, Inc., Hemet, California.

Gregory, Tim, 1999 Historical Resources Technical Report: The Larinan Apiary, prepared for RMW Paleo Associates, report on file at the South Central Costal Information Center.

Harris, L. D. and P. B. Gallagher, 1989, New Initiatives for Wildlife Conservation: The Need for Movement Corridors. Pages 11-34 in G. Mackintosh, ed. Preserving Communities and Corridors, Defenders of Wildlife. Washington D.C. 96 pp.

Heizer, Robert F. (editor), 1978 Tataviam, Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Impact Sciences, Inc., Vista Canyon Draft EIR, Section 4.10, Education, October 2010.

Intergovernmental Panel on Climate Change, 2006 Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories, (2006).

Intergovernmental Panel on Climate Change, Fourth Assessment Report: The Physical Science Basis, Summary for Policy Makers, 2007.

Intergovernmental Panel on Climate Change, Fifth Assessment Report, Introduction, 2013. http://www.climatechange2013.org/images/report/WG1AR5_Chapter01_FINAL.pdf.,accessed August 2014.

Jackson, L. E., et al. 2011. "Case study on potential agricultural responses to climate change in a California landscape." Climatic Change 109 (Suppl 1): S407–S427.

Jameson, Jr., E. W., and H. J. Peeters, 1988, California Mammals, Berkeley: University of California Press.

Johnson, John R., Thomas W. Stafford, Jr., Henry O. Ajie, and Don P. Morris, 2002 Arlington Springs Revisited, Proceedings of the Fifth California Islands Symposium, edited by David R. Brown, Kathryn C. Mitchell and Henry W. Chaney, pp. 541–545, Santa Barbara Museum of Natural History, Santa Barbara.

Johnson, Roosevelt, Captain of the Santa Clarita Valley Sheriff's Station, LASD, Letter Correspondence, March 6, 2014.

Kaufman, Kenn, 2000, Field Guide to Birds of North America, New York: Hillstar Editions L.C.

Keller, Jean K. and Daniel F. McCarthy, 1989 Data Recovery at the Cole Canyon Site (CA-RIV-139), Riverside, California, Pacific Coast Archaeological Society Quarterly, 25(1).

King, C. and T. C. Blackburn, 1978 Tataviam, Handbook of North American Indians (W.C. Sturberant, edit), Vol. 8. Smithsonian Institution, Washington, D.C. pg. 535.

Kleeman, M. J., S.-H. Chen, and R. A. Harley. 2010. Climate change impact on air quality in California: Report to the California Air Resources Board, http://www.arb.ca.gov/research/apr/past/04-349.pdf.

Landscape Development, Inc., Fuel Modification Plan, June 2014.

Los Angeles Basin Plan, Table 2-1, Beneficial Uses of Inland Surface Waters. Nov. 2011.

Los Angeles Basin Plan, Table 2-2, Beneficial Uses of Ground Waters. 1994.

Los Angeles County, 1990, Santa Clarita Valley Area Plan, Comprehensive Update. http://planning.lacounty.gov/assets/upl/data/pd_santa-clarita.pdf, accessed July 12, 2014.

Los Angeles County, 2012 Santa Clarita Valley Area Plan Update, Chapter 4, Conservation and Open Space Element, http://planning.lacounty.gov/ovov, accessed April 8, 2014.

Los Angeles County Code Title 22 (Planning and Zoning Code).

Los Angeles County Department of Parks and Recreation, 2013, Santa Susan Mountains Draft Trails Master Plan, prepared by Sapphos Environmental, Inc. May 1, 2013.

Los Angeles County Department of Regional Planning, 2012. Santa Clarita Valley Area Plan One Valley One Vision 2012. http://planning.lacounty.gov/assets/upl/project/ovov_2012-ch_04_os.pdf, accessed July 12, 2014 and August 11, 2014.

Los Angeles County Department of Regional Planning, 2014, Public Review Draft Los Angeles County General Plan 2035, http: //planning.lacounty.gov/assets/upl/project/gp_2035_Chapter6_2014.pdf., accessed August, 2014.

Los Angeles County Department of Regional Planning, 2014. Public Review Draft Los Angeles County General Plan 2035. http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter8_2014.pdf, accessed July 12, 2014.

Los Angeles County Department of Regional Planning, 2014. Public Review Draft Los Angeles County General Plan 2035., http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter13_2014.pdf, accessed, August 2014.

Los Angeles County Department of Regional Planning, Draft Los Angeles County General Plan 2035, 2014.

Los Angeles County Department of Regional Planning, Final Unincorporated Los Angeles County Community Climate Action Plan, July 2014. http://planning.lacounty.gov/assets/upl/project/ccap_draft-201407.pdf., accessed August 2014.

Los Angeles County Department of Regional Planning, Los Angeles County General Plan, 1980.

Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan/One Vision, November 27, 2012.

Los Angeles County Fire Department Strategic Plan, Engineering our Future, 2012.

Los Angeles County Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS0041).

Los Angeles County Noise Ordinance, Nos. 11773 and 11778.

Los Angeles County Sensitive Bird Species Working Group, 2009, Los Angeles County's Sensitive Bird Species, Western Tanager 75(3):1-11.

Los Angeles Times, Electric, hybrid car sales up, California auto emissions down, May 22, 2014, http://www.latimes.com/business/autos/la-fi-hy-electric-vehicle-sales-up-auto-emissions-down-20140521-story.html, accessed August 2014.

MacArthur, R. M. and E. O. Wilson, 1967, The Theory of Island Biogeography, Princeton University Press: Princeton, New Jersey.

Maxon, Patrick O, 1999, Cultural Resources Reconnaissance and Evaluation of TT 52796 and the Lennar Parcel; Portions of the Aidlin Properties, City of Santa Clarita, Los Angeles County, California, report on file at the South Central Coastal Information Center.

McAuley, M. 1996 (2nd ed.),Wildflowers of the Santa Monica Mountains. Canyon Publishing: Canoga Park, California USA.

McKenna et al. 2005, A Phase I Cultural Resources Investigation of Aidlin Wickham Tract No. 52796, Approximately 230 Acres in the Pico Canyon Area of Los Angeles County, California, report on file at the South Central Costal Information Center.

McLeod, Samuel A., 2014, Results of the Paleontological Records Check for the proposed Aidlin Property Residential Development Project, in Stevenson Ranch near Newhall, Los Angeles County, letter received by PCR Services Corporation from the Natural History Museum of Los Angeles County on March 25, 2014.

Meighan, C. W., 1954, A Late Complex in Southern California Prehistory, Southwestern Journal of Anthropology 10:215–227.

Meltzer, David J., Donald K. Grayson, Gerardo Ardila, Alex W. Barker, Dena F. Dincauze, C. Vance Haynes, Francisco Mena, Lautaro Nuñez, and Dennis J. Stanford, 1997, On the Pleistocene Antiquity of Monte Verde, Southern Chile, American Antiquity 62(4):659-663.

Moratto, Michael J., 1984, California Archaeology, Academic Press, San Diego.

Mullally, D.P. 1997, Series and subseries of woodlands in the Santa Susana Mountains of Los Angeles, Browning-Ferris Industries. Granada Hills, CA.

National Research Council Report, Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future, (2012).

Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. Indicators of Climate Change in California. August 2013. http://www.oehha.ca.gov/multimedia/epic/2013EnvIndicatorReport.html, accessed October 2014.

PCR Services Corporation, 2000, Los Angeles County Significant Ecological Area Update Study 2000, Los Angeles County, California, Background Report, November 2000, Prepared for Los Angeles County Department of Regional Planning.

PCR Services Corporation, June 27, 2013, Oak Tree Survey Update for Tentative Map #52796 in the Stevenson Ranch Area, Prepared for Aidlin General Trust.

Peak and Associates, 1992, Cultural Resources Assessment of the Proposed Newhall Alternate Alignment, Ventura and Los Angeles Counties, California, on file, South Central Coastal Information Center, University of California, Los Angeles.

Perez, Cris, Valencia Water Company, Email Correspondence, dated July 1, 2014.

Porretta, Paul, 1983, Dedication of Historical Marker for Pochea Indian Village Site, California Registered Historical Landmark No. 104 at Ramona Bowl, Hemet, California, October 2, 1983, record on file at the Eastern Information Center, University of California, Riverside 92521-0418.

Public Resources Code Section 21000-21178.

R.T. Frankian & Associates, 100-Scale Plan Review Vesting Tentative Tract Map No. 52796, Los Angeles County, California, March 27, 2014.

R.T. Frankian & Associates, Geologic/Geotechnical Evaluation for Environmental Impact Report Vesting Tentative Tract Map No. 52796, Los Angeles County, California, April 3, 2014.

Sawyer, John O., T. Keeler-Wolf, and Evens, Julie, 2009, A Manual of California Vegetation, Second Edition. Sacramento: California Native Plant Society.

Sheridan, S., and L. Kalkstein. 2011. A Spatial Synoptic Classification Approach to Projected Heat Vulnerability in California under Future Climate Change Scenarios. ARB contract #07-304. http://www.arb.ca.gov/research/apr/past/07-304.pdf.

Smithsonian National Museum of Natural History, 2014, North American Mammals. http://www.mnh.si.edu/mna/, accessed July 2014.

Society for the Study of Amphibians and Reptiles, 2014, North American Checklist of Scientific and Common Names, http://ssarherps.org/publications/north-american-checklist/north-american-checklist-of-scientific-and-common-names/, accessed July 2014.

South Coast Air Quality Management District, 2003 Air Quality Management Plan, Appendix V: Modeling and Attainment Demonstrations, (2003) V-4-24.

South Coast Air Quality Management District, 2012 Air Quality Management Plan, (February 2013), http://www.aqmd.gov/aqmp/2012aqmp/index.htm, accessed August 2013.

South Coast Air Quality Management District, Air Quality Analysis Guidance Handbook, http://www.aqmd.gov/ceqa/hdbk.html, accessed August 2013.

South Coast Air Quality Management District, Air Quality Analysis Guidance Handbook, May 2005 http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4, accessed June 2014.

South Coast Air Quality Management District, Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012.

South Coast Air Quality Management District, Board Meeting, December 5, 2008, Agenda No. 31, Interim GHG Significance Threshold Proposal – Key Issues/Comments Attachment D.

South Coast Air Quality Management District, CEQA Air Quality Handbook, (1993), http://www.aqmd.gov/ceqa/oldhdbk.html, accessed August 2013.

South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 – Determining the Air Quality Significance of a Project, (1993).

South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (June 2003, revised July 2008), http://www.aqmd.gov/ceqa/handbook/LST/LST.html, accessed August 2013.

South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (June 2003, revised July 2008), http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2, accessed June 2014.

South Coast Air Quality Management District, Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin, (2008) 6-1, 6-2.

South Coast Air Quality Management District, Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #12, http://www.aqmd.gov/ceqa/handbook/GHG/2009/july29mtg/ghgmtg12.pdf, accessed August 2013.

South Coast Air Quality Management District, Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting #15, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2., accessed October 2014.

South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, (May 2005), http://www.aqmd.gov/prdas/aqguide/aqguide.html, accessed August 20, 2013.

South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.

South Coast Air Quality Management District, Historical Air Quality Data Studies, 2009-2013. http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year.

South Coast Air Quality Management District, Historical Data by Year, http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year, accessed July 14, 2014.

South Coast Air Quality Management, LST Methodology: http://www.aqmd.gov/ceqa/handbook/lst/Method_final.pdf.

South Coast Air Quality Management District, Multiple Air Toxics Exposure Study III Model Estimated Carcinogenic Risk, http://www3.aqmd.gov/webappl/matesiii/, accessed July 12, 2014.

South Coast Air Quality Management District, Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology, (October 2006), http://www.aqmd.gov/ceqa/handbook/pm2_5/pm2_5.html, accessed August 2013.

South Coast Air Quality Management District, Risk Assessment Procedures for Rules 1401 and 212, (July, 2005). http://www.aqmd.gov/docs/default-source/planning/risk-assessment/risk-assessment-procedures-v-7.pdf?sfvrsn=4, accessed June 2014.

South Coast Wildlands, 2008, South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion, Produced in cooperation with partners in the South Coast Missing Linkages Initiative, Available online at http://www.scwildlands.org.

Southern California Association of Governments, Compass Growth Vision, June 2004.

Southern California Association of Governments, Draft Regional Transportation Plan 2012-2035, December 2011.

State CEQA Guidelines Section 15364.5; Health and Safety Code, section 38505(g).

State of California, The Resources Agency, Department of Fish and Game. November 24, 2009, Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.

Stebbins, R. C. 2003, A Field Guide to Western Reptiles and Amphibians, Third Edition, Boston: Houghton-Mifflin.

Stantec. Aidlin Hills VTTM 52796 Traffic Impact Analysis. November 24, 2014.

State Water Resources Control Board NPDES General Permit for Discharges Associated with Construction Activity (Water Quality Order No. 2009-0009-DWQ).

SWRCB GeoTracker database/website results for Stevenson Ranch accessed December 14, 2014: http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=stevenson+ranch%2C+ca

United States Army Corps of Engineers (USACE), 2006, Interim regional supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

United States Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG), 2009, Newhall Ranch Resource Management and Development Plan and the Spineflower Conservation Plan Draft EIS/EIR.

United States Census Bureau, Data Finders, http://www.census.gov/ 2009; California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, January 2011-2014, with 2010 Benchmark, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/, accessed May 2014.

United States Department of Agriculture, 2014, Plants Database, Natural Resources Conservation Service, http://plants.usda.gov/java/, accessed August 2014.

United States Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2012, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=US. accessed July 2014.

United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, August 2012, http://www.epa.gov/oms/climate/documents/420f12051.pdf., accessed October 2014.

United States Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012, April, 2014. http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2014-Main-Text.pdf, accessed, August 2014.

United States Environmental Protection Agency, Monitor Report Values, CO 2011-2013, http://www.epa.gov/airdata/ad_rep_mon.html.

United States Environmental Protection Agency, "National Ambient Air Quality Standards," http://www.epa.gov/air/criteria.html, accessed September 2014. Section 109 of the Clean Air Act requires standards be set at a level "requisite to protect the public health" with an "adequate margin of safety."

United States Environmental Protection Agency, The Green Book Non-attainment Areas for Criteria Pollutants, http://www.epa.gov/oaqps001/greenbk/index.html, accessed September 2014.

United States Fish and Wildlife Service, January 2000, Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants.

United States Geological Survey, http://en.wikipedia.org/wiki/Peak_ground_acceleration, accessed December 2014.

United States Geological Survey, http://en.wikipedia.org/wiki/Richter_magnitude_scale#cite_note-18, accessed October 2013.

Verna Jigour Associates. July 3, 1999, Initial Study Assessment: Vegetation and Flora, Aidlin and Lennar Properties: Tentative Tract No. 52796. Los Angeles County.

Verna Jigour Associates, June 7, 2000, The Aidlin Project: Tentative Tract No. 52796, Spring Plant List, Conservation Ecology Associates.

Vidales, Frank, Chief, Forestry Division, Prevention Services Bureau, LACFD, Letter Correspondence, November 4, 2014.

Wallace, William J., 1955, A Suggested Chronology for Southern California Coastal Archaeology. Southwestern Journal of Anthropology 11:214-230.

Warren, Claude N., 1968, Cultural Tradition and Ecological Adaptation on the Southern California Coast, In Archaic Prehistory in the Western United States, C. Irwin-Williams, ed, pp. 1-4, Eastern New Mexico University Contributions in Anthropology, Portales.

Wolcott, Ronna, Assistant Superintendent, Business Services, Newhall School District, Letter Correspondence, April 20, 2014

Yue, Xu et al. 2013. "Ensemble projections of wildfire activity and carbonaceous aerosol concentrations over the western United States in the mid-21st century." Atmospheric Environment 77: 767-780. http://acmg.seas.harvard.edu/publications/2013/Yue_ae_2013.pdf.

This page intentionally blank.

9.0 MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP), which is provided in **Table 9-1**, *Mitigation Monitoring and Reporting,* has been prepared pursuant to Public Resources Code Section 21081.6, which requires adoption of a MMRP for projects in which the Lead Agency has required changes or adopted mitigation to avoid significant environmental effects. Los Angeles County is the Lead Agency for the proposed Aidlin Hills Project and therefore is responsible for administering and implementing the MMRP. The decision-makers must define specific reporting and/or monitoring requirements to be enforced during Project implementation prior to final approval of the Project. The primary purpose of the MMRP is to ensure that the mitigation measures identified in the Draft and Final EIR (designated by the respective environmental issue within Chapter 4.0 of the Draft EIR) are implemented, thereby minimizing identified environmental effects. The MMRP also includes the proposed Project Design Features (PDFs) listed throughout Chapter 4.0 the Draft EIR. The PDFs are specific design elements proposed by the Applicant that have been incorporated into the Project to prevent the occurrence of or to minimize the significance of potential environmental effects. Because PDFs have been incorporated into the Project, they do not constitute mitigation measures, as defined by Section 15126.4 of the State CEQA Guidelines (Title 14 of the California Code of Regulations). However, PDFs are included in this MMRP to ensure their implementation as a part of the Project. The Project would include PDFs related to: Aesthetics, Air Quality, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Hydrology and Water Quality.

The MMRP for the Project will be in place through all phases of the Project, including design (preconstruction), construction, and operation (both prior to and post-occupancy). Los Angeles County Department of Regional Planning (DRP) is responsible for administering the MMRP. The DRP will ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected. The designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to remedy problems.

Each mitigation measure and PDF is categorized by impact area, with an accompanying identification of:

- The action required, including the phase during which the mitigation measure/PDF should be monitored;
- The timing with which the mitigation measure/PDF must comply;
- The responsible party; and
- The monitoring/enforcing agency.

Table 9-1

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Aesthetics							
PDF 1-1 - The Project would preserve approximately 165 acres (71 percent) as undeveloped, natural areas within the southern and western portions of the Project site. The majority of the developed area of the Project would be west of Wickham Canyon, behind the low and moderate hillside areas that define much of the northern boundary of the Project site, minimizing view impacts along Pico Canyon Road and Pico Canyon Trail. The prominent ridgelines and ridgeline between Mentryville and developed area would be left in their natural conditions.	Design/Plan Check	Prior to recordation of a subdivision map	Permittee	County Department of Regional Planning			
PDF 1-2 - Lighting of streets and select landscaped areas would be provided for safety and security. Lighting provided by the Permittee would have light	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
fixtures that are directed downward and shielded to prevent spillover into surrounding areas, while providing sufficient illumination for safety purposes.							
PDF 1-3 - The Project entry would include corner monuments that would serve as the anchor to a split rail fencing system that leads into the Project and would incorporate landscaping. The corner monuments would use earth tone colors and archways along the Pico Canyon trail of an adequate size to allow the passage of horses. A low voltage lighting will be designed to illuminate the signage.	Design/Plan	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			
PDF 1-4 - The Project's landscape design will utilize a plant palette consisting of fire retardant plants, native and appropriate non-native drought tolerant species. The Project's	Design/Landscape Plan Check	Prior to issuance of building permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
landscaping would be made up of a mixture of low growing ground cover, medium to large shrubs and trees. As shown, landscaping and visual buffers would be concentrated along the perimeter of the proposed developed areas, including adjacent to main entryway to the Project from Pico Canyon Road, the new emergency access road, and adjacent to the Southern Oaks neighborhood. The concentration of landscaping in these areas would serve as natural visual buffers between the proposed homes and streets and existing residences, roadways, and trails. To reduce the impacts associated with graded areas and construction of the main Project entry road and emergency access road, these areas would be revegetated and landscaped as soon as feasible following grading and roadway development. The Project site would also incorporate							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
landscaping between the internal residential streetscape system.							
Air Quality							
Mitigation Measure 4.2-1 - Prior to the issuance of grading permits, the Permittee shall submit evidence to the County Department of Regional Planning that off-road diesel-powered heavy-duty construction equipment greater than 50 horsepower used during grading activities of Project construction meet or exceed the CARB and USEPA Tier 3 off-road emissions standards for heavy-duty equipment.	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.2-2 - Prior to the issuance of grading permits, the Permittee shall submit evidence to the County Department of Regional Planning that all heavy-duty diesel-powered equipment in use and/or refueled at the Project site shall use the most current grade of ultra-low sulfur diesel (ULSD) fuel approved by CARB and available in the South Coast Air Basin.	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.2-3 - Prior to the issuance of grading permits, the Permittee shall submit evidence, such as contractor agreements, training, or instructional materials, to the County Department of Regional Planning that truck and equipment idling and queuing time shall be limited to five minutes or less, when equipment is not in active use, in accordance with the CARB Airborne Toxic Control Measure.	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.2-4 - The Permittee shall utilize construction equipment having the lowest appropriate horsepower rating for the intended job. The Project Contractor shall be responsible for field inspection sign-off and submittal of compliance certification reports to the County Department of Regional Planning at a frequency determined by the County.	Submittal of contractor agreement and subsequent construction log (as necessary) documenting appropriate equipment horsepower rating	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.2-5 - The Permittee shall utilize construction equipment operating on-site that is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules. The Project Contractor shall be responsible for field inspection sign-off and submittal of maintenance documentation to the County Department of Regional Planning at a frequency determined by the County.	Submittal of contractor agreement and subsequent construction log (as necessary) documenting proper maintenance of equipment	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.2-6 - The Permittee shall prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices. This prohibition shall be specified in contractor agreements and subject to routine maintenance checks or inspections. The Project Contractor shall be responsible for field inspection sign-off and submittal of compliance certification reports to the County Department of Regional Planning at a frequency determined by the County.	Submittal of contractor agreement and subsequent construction log (as necessary) documenting appropriate equipment maintenance requirements	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			
Mitigation Measure 4.2-7 - The use of all construction equipment shall be suspended during a second-stage smog alert in the immediate vicinity of the Project site (e.g., smog alert affecting the Santa Clarita Valley).	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
PDF 2-1 - Apply energy-saving technologies and components to reduce the Project's electrical use-profile including but not limited to the following: ▪ Optimizing the solar orientation of buildings to maximize passive and active solar design techniques; ▪ Installation of energy-efficient/low-energy light fixtures, energy efficient heating and cooling equipment, and energy-efficient appliances (e.g., ENERGY STAR-rated or equivalent).	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			
PDF 2-2 - Reduce the energy associated with heating and cooling loads through the use of such techniques as high-albedo (or reflective) roofing such as light-colored, "white" roofs.	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
These roofing technologies increase the reflectance of the roofs, and thus reduce emissions from heating and cooling equipment. In addition, these roofs mitigate the heat island effect by reducing the absorption of solar energy.							
PDF 2-3 - Residential units shall be constructed with solar-ready rooftops that provide for the future installation of on-site solar photovoltaic (PV) or solar water heating (SWH) systems. The building design documents shall show an allocated Solar Zone and the pathway for interconnecting the PV or SWH system with the building electrical or plumbing system. The Solar Zone is a section of the roof that has been specifically designated and reserved for the future installation of a solar PV system, solar water heating system, and/or other solar generating system. The Solar	Design/Plan Check	Prior to issuance of building permit	Permittee	County Department of Public Works			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Zone must be kept free from roof penetrations and have minimal shading.							
PDF 2-4 - Use commissioning to ensure that the Project's lighting, mechanical, heating, cooling, ventilation, and other energy and water-consuming systems are operating at their designed levels of efficiency (commissioning is a process to verify that the Project's energy-related systems are installed, calibrated, and perform according to Project requirements).	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			
PDF 2-5 - Residential landscaping shall comply with the County's Tree Planting ordinance (Section 22.52.2130(C)(5)), which requires that each lot containing a single-family residence contain a minimum of two 15-gallon trees, at least one of which shall be from the drought-tolerant plant list.	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
PDF 2-6 - Utilize trees and other landscaping where appropriate to provide appropriate shading of the Project's structures and walkways, thereby reducing cooling energy demands and mitigating the heat island effect. Trees and other landscaping also act as a means to capture (sequester) CO_2 from the atmosphere.	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			
PDF 2-7 - Reduce water usage and demand by installing water efficient fixtures, such as faucets, showerheads, and toilets meeting or exceeding the USEPA WaterSense® or equivalent standards. On-site reductions in water use would reduce the amount of energy necessary to transport the water to the site, and thus reduce the Project's water-related energy demand and associated emissions.	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
PDF 2-8 - Comply with applicable provisions of the CALGreen code to increase water efficiency through the use of drought-tolerant landscaping and drought-tolerant, native, and fire-retardant trees where feasible. Comply with applicable provisions of the CALGreen code for the installation of low-water consumption irrigation systems	Design/Plan Check	Prior to issuance of certificate of occupancy	Permittee	County Department of Regional Planning			
PDF 2-9 - Incorporate recyclable and biodegradable materials where appropriate and economically feasible. Materials may include, but are not limited to, gypsum board, insulation, steel, ceramic tile, countertops, trim, and carpet/carpet padding.	Design/Plan Check	Prior to issuance of building permit	Permittee	County Department of Regional Planning			
Biological Resources							
Mitigation Measure 4.3-1 The loss of slender and Plummer's mariposa lily individuals from developed areas of the Project site shall be mitigated by the salvage and transplantation of	Pre-Construction	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
bulbs to appropriate habitat areas in undeveloped portions of the Project site, prior to the issuance of a grading permit. A pre-construction survey during the peak flowering period for the slender mariposa lily and Plummer's mariposa lily (March to June) shall be conducted by a qualified biologist in the spring prior to construction. The location of each plant observed within the impact area shall be clearly delineated with brightly colored flagging as well as GPS coordinates recorded. Plants within the proposed development footprint and likely to be impacted shall be mitigated by bulb collection (during summer) and subsequent out-planting and propagation. A portion of the bulbs (no greater than 50%) shall then be placed into a suitable mitigation site in the undeveloped portion of the Project site or at an approved off-site location. A qualified							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
biologist shall be selected by the Project Applicant to prepare and implement the mitigation plan. The detailed mariposa lily mitigation and monitoring plan shall include, at a minimum, the following requirements, and be approved by the County of Los Angeles prior to issuance of a grading permit: 1. The seeds shall be collected from existing plants and cultivated in nursery until they are ready for transplant into mitigation area at the appropriate time of year or stored for direct seeding in the approved mitigation areas. 2. The salvaged bulbs can be immediately transplanted at appropriate time of year to appropriate receptor sites within the Project Area that support suitable habitat matching the habitat characteristics from which the bulbs were collected.							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
3. Mitigation areas used for bulb transplanting and seed sowing shall be as dedicated open space, with the location of the mitigation areas to be selected based upon the habitat quality and suitability. The qualified biologist will undertake pre-ground disturbance flowering season surveys to determine these suitable mitigation areas of comparable soils, slope exposure and vegetation cover. 4. Mitigation shall be at a minimum of a 2:1 mitigation-to-impact ratio per individual plant, i.e., two replacement plants provided for every plant that is taken. 5. Monitoring of the mitigation areas shall be conducted for five years or until performance standards are achieved—whichever is longer. Monitoring shall be conducted							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
quarterly through the first year and annually thereafter for a total period of at least five years. Monitoring shall address issues of plant establishment and vigor, herbivory, and competition by non-native weedy plants. 6. Performance standards shall be described to measure mitigation success by the end of the five-year monitoring program, and contingency measures shall be incorporated to be pursued in the event that performance standards prove to be untenable.							
Mitigation Measure 4.3-2 - The Project design shall dedicate 165 acres as natural open space to provide habitat for western spadefoot, silvery legless lizard, coastal whiptail, coast horned lizard, rosy boa, golden eagle, Cooper's hawk (foraging), Swainson's hawk (foraging), white-tailed kite (foraging), prairie falcon, turkey vulture,	Design/Plan Check	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
lesser nighthawk, greater roadrunner, hairy woodpecker, mountain bluebird (foraging), loggerhead shrike (foraging), California horned lark, coastal California gnatcatcher, western meadowlark, southern California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow, spotted bat, pallid bat, Townsend's bat, western mastiff bat, hoary bat, San Diego black-tailed jackrabbit, southern grasshopper mouse and San Diego desert woodrat.							
Mitigation Measure 4.3-3 Prior to the issuance of a grading permit for ground disturbance, construction, or site preparation activities, the applicant shall retain the services of a qualified biologist to conduct pre construction surveys for western spadefoot within all portions of the Project site containing suitable breeding habitat. Surveys shall be conducted during a time of year	Pre-Construction	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
when the species is most likely to be detected (e.g., during a normal or greater rain year while rain pools are present and temperatures are suitable for spadefoot activity). If western spadefoot is identified on the Project site, western spadefoot habitat shall be created within suitable natural sites on the Project site outside the proposed development envelope under the direct supervision of the qualified biologist. The amount of occupied breeding habitat to be impacted by the Project shall be replaced at a 2:1 ratio. The actual relocation site design and location shall be approved by CDFW. The location shall be in suitable habitat, including suitable uplands, as far away as is feasible from any of the homes and roads to be built. The relocation ponds shall be designed such that they only support standing water for several weeks following seasonal							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
rains. The biologist shall conduct pre-construction surveys in all appropriate vegetation communities within the development envelope. All western spadefoot adults, tadpoles, and egg masses encountered shall be collected and released in the identified/created relocation ponds described above. Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.							
Mitigation Measure 4.3-4 Prior to ground disturbance or grading activities, the applicant shall develop a relocation plan for rosy boa, coast horned lizard, silvery legless lizard, and coastal whiptail. The Plan shall include the timing and location of the	Pre-Construction	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
surveys (based upon accepted protocols) that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the more appropriate habitats within the dedicated open space that are most appropriate for each species; the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recordation of the species and number of the animals relocated. The Plan shall be submitted to the County for its review and approval 60 days prior to any scheduled ground disturbing activities within potentially occupied habitat. Thirty days prior to construction activities, qualified biologists shall conduct surveys to capture and relocate individual rosy boa, coast horned lizard, silvery legless lizard, and coastal							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
whiptail per the County-approved relocation plan in order to avoid or minimize take of these special status species. The plan shall require a minimum of three (3) surveys conducted during the time of year/day when each species is most likely to be observed. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February), the surveys shall be conducted prior to this period and exclusion fencing shall be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. During the construction period, clearance surveys for special-status reptiles shall be							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
conducted by a qualified biologist prior to the initiation of construction each day. Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.							
Mitigation Measure 4.3-5 Thirty days prior to construction activities, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit. If San Diego black-tailed jackrabbits are present, non-breeding rabbits shall be flushed from areas to be disturbed. Dens, depressions, nests, or burrows occupied by pups shall be flagged and ground-disturbing activities	Pre-Construction	Prior to commencement of vegetation removal or prior to the issuance of grading permit, which ever comes first, as directed by the County	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
avoided within a minimum of 200 feet during the offspring-rearing season (February 15 through July 1). Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.							
Mitigation Measure 4.3-6 Thirty days prior to construction activities, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego desert woodrat. If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone, a construction fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified	Pre-Construction	Prior to commencement of vegetation removal or prior to the issuance of grading permit, which ever comes first, as directed by the County	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
biologist. Clearing and construction within the fenced area shall be postponed or halted until young have left the nest. The biologist shall be present during those periods when disturbance activities will occur near active nest areas to avoid inadvertent impacts to these nests. Results of the surveys and relocation efforts shall be provided to the County. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.							
Mitigation Measure 4.3-7 Where nest avoidance is not possible, the project biologist shall clear vegetation from immediately surrounding active nests followed by a night without further disturbance to allow woodrats to vacate the nest. Preference will be given to non breeding-season destruction of	Pre-Construction	Prior to commencement of vegetation removal or prior to the issuance of grading permit, which ever comes first, as directed by	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
the nests (May through October) and relocation of adults shall target undeveloped areas of the project, including salvage of nest-building material—rocks, sticks, etc. Each occupied nest shall subsequently be gently disturbed by a qualified wildlife biologist in possession of a scientific collecting permit to entice any remaining woodrats to leave the nest and seek refuge outside the Project construction area. The stick nests shall be carefully removed from the Project construction area and be placed near a suitable vegetation or rocky substrate similar to original nest location. The project biologist shall document all woodrat nests moved and provide a written report to the County.		the County					
Mitigation Measure 4.3-8 The project applicant shall be responsible to avoid the direct loss of non-game animals,	Pre-Construction and Construction (as	Prior to commencement of vegetation removal or prior	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
including bats, during construction activities. Activities that could result in disturbance impacting bat maternity or hibernation roosts shall be scheduled to avoid sensitive periods (April 1 to September 15 for maternity roosts and December 1 to March 31 for hibernation roosts). Where potential roost sites must be removed, a qualified biologist shall conduct a pre-construction survey to identify those structures and habitats proposed for disturbance that could provide bat hibernacula, nursery colony roosting habitat for bats or subterranean burrows for wildlife. Each structure or suitable habitat area identified as potentially supporting an active bat roost or burrow shall be closely inspected by the biologist no greater than seven (7) days prior to disturbance to more precisely determine the presence or absence of roosting bats or	necessary)	to the issuance of grading permit, which ever comes first, as directed by the County, and periodic site inspections (as necessary)					

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
non-game wildlife. To avoid the potential direct loss of special-status bat species from disturbance to rocky cliff crevices that may provide maternity roost habitat, the following steps shall be taken: 1. To the extent feasible, disturbance to suitable bat roosting habitat shall be scheduled from September 16 – November 30, outside of the maternity roosting and hibernation seasons. The most suitable bat roosting habitats on the Project site are the rocky outcrops at the southern boundary (approximately 800 feet distant from the proposed construction area) and within oak and walnut trees. A bat specialist shall conduct a pre-construction survey of the development footprint and surrounding 200 feet for possible bat roosting habitat							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
within these areas. If the bat specialist determines that no roosting bats are present within the survey area, no further action shall be necessary in regard to roosting bat species (both special-status and non-special-status, non-game species). 2. If maternity or hibernation roosts are found, a 200-foot buffer around maternity roosts within or adjacent to the development footprint shall be left in place until the end of the maternity or hibernation season, whereupon a qualified bat specialist must determine that the bats are no longer hibernating or that young have become volant before the buffer may be removed. 3. If bat roosts are impacted during construction, the project applicant will provide replacement roosts within similar habitat and with a gap no greater than 3.8 centimeters and							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
interior surface comparable to that of the original roost. The replacement roost should be swabbed with bat guano and urine collected from the original roost. 4. The bat specialist shall document all survey results and prepare a summary report to the County. If Townsend's big-eared bat is detected during pre-construction surveys, all construction-related activity shall be halted immediately and CDFW shall be notified. Work may only resume subsequent to CDFW approval.							
Mitigation Measure 4.3-9 Impacts to sensitive plant communities (i.e., Thick-leaved Yerba Santa Scrub, Giant Wild Rye Grassland, California Bush Sunflower Scrub, Toyon Chaparral, and Foothill Ash Scrub) shall be mitigated using one or more of the following:	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
1. On-site restoration or enhancement of sensitive plant communities (e.g., transplantation, seeding, or planting of representative plant community species; salvage/dispersal of duff and seed bank) at a ratio no less than 1:1 for temporary impacts and 2:1 for permanent impacts, subject to the approval of the County of Los Angeles. 2. Purchase of mitigation credits at an agency-approved off-site mitigation bank within Los Angeles County or in-lieu fee program at a ratio no less than 1:1, subject to the approval of the County of Los Angeles. If mitigation is to occur on-site or off-site, habitat mitigation and monitoring plan shall be prepared and approved by the County Biologist prior to the issuance of a grading permit. The plan shall focus on the creation of equivalent habitats							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
within disturbed habitat areas of the project site or off-site. In addition, the plan shall provide details as to the implementation of the plan, maintenance, and future monitoring including the following components: 1. Description of existing sensitive habitats on the Project site; 2. Summary of permanent impacts to sensitive communities based on approved Project design; 3. Proposed location for mitigation areas, either on-site or off-site, with description of existing conditions prior to mitigation implementation; 4. Detailed description of restoration or enhancement goals; 5. Description of implementation schedule, site preparation, erosion control measures, planting plans, and							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
plant materials; 6. Provisions for mitigation site maintenance and control on non-native invasive plants; and 7. Monitoring plan, including performance standards, adaptive management measures, and monitoring reporting to the County of Los Angeles.							
Mitigation Measure 4.3-10 Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the Project applicant shall obtain a CWA Section 404 permit from the USACE, a CWA Section 401 permit from the RWQCB, and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the CDFW, where the project warrants. The following would be incorporated into the permitting, subject to approval	Pre-Construction	Prior to issuance of grading permit	Permittee	County Department of Regional Planning, U.S. Army Corps of Engineers, Regional water Quality Control Board, and California Department of Fish and Wildlife			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
by the regulatory agencies: 1. On- or off-site restoration or enhancement of USACE/RWQCB jurisdictional "waters of the U.S."/"waters of the State" and wetlands at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program within Los Angeles County or within the same watershed acceptable to the County, where the location has comparable ecological parameters such as habitat types, species mix and elevational range. 2. On- or off-site restoration or enhancement of CDFW							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program within Los Angeles County or within the same watershed acceptable to the County, where the location has comparable ecological parameters such as habitat types, species mix and elevational range.							
Mitigation Measure 4.3-11 Prior to the issuance of any grading permit that would require removal of potential habitat for raptor and songbird nests, the Project applicant shall	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
demonstrate to the satisfaction of the County of Los Angeles that either of the following have been or will be accomplished: 1. Proposed project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season which generally runs from February 1-August 31 (as early as January 1 for some raptors) to avoid take of birds or their eggs. Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86), and includes take of eggs or young resulting from disturbances which cause abandonment of active nests. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
warranted. 2. If avoidance of the avian breeding season is not feasible, a qualified biologist with experience in conducting breeding bird surveys shall conduct weekly bird surveys beginning thirty days prior to the initiation of project activities, to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 500 feet of the disturbance area. The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of project activities. If a protected native bird is found, the project proponent should delay all project activities within 300 feet of on- and off-site suitable nesting habitat (within 500 feet for suitable raptor nesting							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
habitat) until August 31. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptor nests) or as determined by a qualified biological monitor, must be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Flagging, stakes, or construction fencing should be used to demarcate the inside boundary of the buffer of 300 feet (or 500 feet) between the project activities and the nest. Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. The project proponent should provide the Department of Regional Planning the results of the recommended protective measures described above to							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
document compliance with applicable State and Federal laws pertaining to the protection of native birds. 3. If the biological monitor determines that a narrower buffer between the project activities and observed active nests is warranted, he/she should submit a written explanation as to why (e.g., species-specific information; ambient conditions and birds' habituation to them; and the terrain, vegetation, and birds' lines of sight between the project activities and the nest and foraging areas) to the Department of Regional Planning and, upon request, the CDFW. Based on the submitted information, the Department of Regional Planning (and the CDFW, if the CDFW requests) will determine whether to allow a narrower buffer. 4. The biological							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
monitor shall be present on site during all grubbing and clearing of vegetation to ensure that these activities remain within the project footprint (i.e., outside the demarcated buffer) and that the flagging/stakes/fencing is being maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The biological monitor shall send weekly monitoring reports to the Department of Regional Planning during the grubbing and clearing of vegetation, and shall notify the Department of Regional Planning immediately if project activities damage active avian nests.							
Mitigation Measure 4.3-12 The Permittee shall mitigate through a two to one mitigation to impact ratio for the removal of one coast live oak trees. Each replacement tree shall be at least a 15-gallon size specimen and measure at least one inch in diameter one foot above the	Pre-Construction	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
base. The Permittee shall coordinate with the County Forester and Department of Regional Planning prior to removing of the oak tree on the acceptable location for the replacement planting location. The Permittee shall comply with the conditions of the approved Oak Tree Permit 00-136.							
Cultural Resources							
Mitigation Measure 4.4-1 - The Permittee shall retain a qualified archaeological monitor who shall be present during construction excavations (e.g., grading, trenching, or clearing/grubbing) in areas where the Larinan Apiary structures once existed in the northern portion of the Project site. Other areas outside the boundaries of the Larinan Apiary structures shall not be monitored. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
archaeological resources, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring may be reduced to part-time inspections if determined adequate by the archaeological monitor.							
Mitigation Measure 4.4-2 - In the event that archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be	Construction (as necessary)	Upon discover of potential archaeological resources (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
evaluated by a qualified archaeologist. The Permittee shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. Treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. The Permittee, in consultation with the archaeologist, shall designate repositories in the event that archaeological material is recovered.							
Mitigation Measure 4.4-3 - The archaeological monitor shall prepare a final report at the conclusion of archaeological monitoring. The report shall be submitted by the Permittee to the County, the South Central Coastal Information Center, and representatives of other appropriate or concerned	Construction (as necessary)	Upon discover of potential archaeological resources (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
agencies to signify the satisfactory completion of the Project and required mitigation measures. The report shall include a description of resources unearthed, if any, treatment of the resources, and evaluation of the resources with respect to the California Register of Historical Resources.							
Mitigation Measure 4.4-4 - The Permittee shall retain a Native American tribal monitor from the Fernandeño Tataviam group who shall be present during construction excavations (e.g., grading, trenching, or clearing/grubbing) associated with the proposed Project. The frequency of monitoring shall be determined by the tribal monitor, who shall take into account the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus	Construction (as necessary)	Prior to issuance of grading permit and upon discover of potential archaelogical resources (as necessary) and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
artificial fill soils), and the depth of excavation, and if found, the abundance and type of prehistoric archaeological resources encountered. Full-time tribal monitoring may be reduced to part-time inspections if determined adequate by the Native American monitor. If prehistoric archaeological resources are encountered during construction, the Native American monitor shall advise the Permittee and archaeologist regarding the treatment and curation of the resources as described in Mitigation Measure 4.4-2. As discussed Mitigation Measure 4.4-2, the archaeological monitor shall have the authority to halt or divert ground-disturbing activities away from the vicinity of the find so that it can be evaluated and a subsequent treatment plan be prepared and implemented. The tribal monitor shall advise the archaeological							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
monitor regarding decisions to halt or divert work from the vicinity of a find.							
Mitigation Measure 4.4-5 - If human remains are unearthed during implementation of the Project, the Permittee shall comply with State Health and Safety Code Section 7050.5. The Permittee shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the landowner, inspect the site of the discovery	Construction (as necessary)	Upon discover of human remains (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
of the Native American remains and may recommend to the landowner means for treating or disposing, with appropriate dignity, the human remains and any associated funerary objects. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and cultural items associated with Native American burials. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
mitigation measure, with the MLD regarding their recommendations, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment. If reburial is recommended, the MLD shall file a record of the reburial with the NAHC and the Project archaeologist shall file a record of the reburial with the CHRIS-SCIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance. A record of the reburial shall be filed with the NAHC and the CHRIS-SCCIC.							
Mitigation Measure 4.4-6 - A qualified Paleontologist shall be retained to develop and implement a paleontological monitoring program for construction excavations that would encounter older Quaternary alluvium or deposits associated with Pico Formation or Towsley Formation. The Paleontologist shall attend a pre-grading/excavation meeting to discuss a paleontological monitoring program. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the	Pre-Construction and Construction (as necessary)	Prior to issuance of grading permit and periodic site inspections (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Society for Vertebrate Paleontology. The qualified Paleontologist shall supervise a paleontological monitor who shall be present at such times as required by the Paleontologist during construction excavations into older Quaternary alluvium, or deposits associated with Pico Formation or Towsley Formation. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. The frequency of monitoring inspections shall be determined by the Paleontologist and shall be based on the rate of excavation and grading activities, the materials being excavated, and the depth of excavation, and if found, the abundance and type of fossils encountered.							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.4-7 - If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the Paleontologist's discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Any fossils collected shall be donated to a public, non-profit institution	Construction (as necessary)	Upon discovery of fossils (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.							
Mitigation Measure 4.4-8 - The paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Permittee to the lead agency and the Natural History Museum of Los Angeles County, and other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.	Construction (as necessary)	Prior to issuance of building permit	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Geology and Soils							
PDF 5-1 - The upper alluvial soils susceptible to liquefaction within Wickham Canyon shall be removed.	Submittal of Grading Plan	Prior to issuance of grading permit	Permittee	County Department of Public Works			
PDF 5-2 - During grading, remove the existing landslide within the grading footprint.	Submittal of Grading Plans	Prior to issuance of final grading clearance	Permittee	County Department of Public Works			
PDF 5-3 - Alluvial soils susceptible to hydroconsolidation shall be removed to competent natural material during grading. All alluvial deposits within the grading footprint shall be removed.	Submittal of Grading Plans	Prior to issuance of final grading clearance	Permittee	County Department of Public Works			
Greenhouse Gas Emissions							
PDF 6-1 - Apply energy-saving technologies and components to reduce the Project's electrical use-profile including, but not limited to, the following:	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
▪ Optimizing the solar orientation of buildings to maximize passive and active solar design techniques; ▪ Installation of energy-efficient/low-energy light fixtures, energy efficient heating and cooling equipment, and energy-efficient appliances (e.g., ENERGY STAR-rated or equivalent).							
PDF 6-2 - Reduce the energy associated with heating and cooling loads through the use of such techniques as high-albedo (or reflective) roofing such as light-colored, "white" roofs. These roofing technologies increase the reflectance of the roofs, and thus reduce emissions from heating and cooling equipment. In addition, these roofs mitigate the heat island	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
effect by reducing the absorption of solar energy.							
PDF 6-3 - Residential units shall be constructed with solar-ready rooftops that provide for the future installation of on-site solar photovoltaic (PV) or solar water heating (SWH) systems. The building design documents shall show an allocated Solar Zone and the pathway for interconnecting the PV or SWH system with the building electrical or plumbing system. The Solar Zone is a section of the roof that has been specifically designated and reserved for the future installation of a solar PV system, solar water heating system, and/or other solar generating system. The Solar Zone must be kept free from roof penetrations and have minimal shading.	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
PDF 6-4 - Use commissioning to ensure that the Project's lighting, mechanical, heating, cooling, ventilation, and other energy and water-consuming systems are operating at their designed levels of efficiency (commissioning is a process to verify that the Project's energy-related systems are installed, calibrated, and perform according to Project requirements).	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			
PDF 6-5 - Residential landscaping shall comply with the County's Tree Planting ordinance (Section 22.52.2130(C)(5)), which requires that each lot containing a single-family residence contain a minimum of two 15-gallon trees, at least one of which shall be from the drought-tolerant plant list.	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			
PDF 6-6 - Utilize trees and other landscaping where appropriate to provide appropriate shading	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
of the Project's structures and walkways, thereby reducing cooling energy demands and mitigating the heat island effect. Trees and other landscaping also act as a means to capture (sequester) CO_2 from the atmosphere.							
PDF 6-7 - Reduce water usage and demand by installing water efficient fixtures such as faucets, showerheads, and toilets meeting or exceeding the USEPA WaterSense® or equivalent standards. On-site reductions in water use would reduce the amount of energy necessary to transport the water to the site, and thus reduce the Project's water-related energy demand and associated emissions.	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			
PDF 6-8 - Comply with applicable provisions of the CALGreen code to increase water efficiency through the use of drought-tolerant landscaping	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
and drought-tolerant, native, and fire-resistant trees to support water conservation efforts where feasible. Comply with applicable provisions of the CALGreen code for the installation of low-water consumption irrigation systems.							
PDF 6-9 - Incorporate recyclable and biodegradable materials where appropriate and economically feasible. Materials may include, but are not limited to, gypsum board, insulation, steel, ceramic tile, countertops, trim, and carpet/carpet padding.	Design/Plan Check	Prior to issuance of certificates of occupancy	Permittee	County Department of Regional Planning			
Hazards and Hazardous Materials							
Mitigation Measure 4.7-1 - Prior to issuance of a grading permit for the Project, the Permittee shall comply with the proper abandonment standards of the State of California Division of Oil, Gas and Geothermal Resources (DOGGR). A DOGGR	Pre-Construction	Prior to issuance of grading permit	Permittee	County Department of Regional Planning and DOGGR			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
monitor shall be present on site during all abandonment activities on the on-site oil wells.							
Mitigation Measure 4.7-2 - Prior to the issuance of a grading permit for the Project, the Permittee shall submit a community health and safety plan, worker health and safety plan, and the Soils Management Plan (SMP) prepared by a California-licensed professional geologist to the LACFD and/or the DTSC. The SMP would state if the soil shall require special handling either in advance of grading activating or concurrent with grading work and describe various remedial options (including off-site disposal or on-site reuse). The SMP shall include protocols for screening of soil exhibiting impacts; handling and/or disposal of the soils impacted with petroleum hydrocarbon, title 22 metals, volatile organic compounds	Pre-Construction	Prior to issuance of grading permit	Permittee	County Fire Department			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
(VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides (OCPs), and polychlorinated biphenyls (PCBs); stockpile management; vapor suppression and dust control; surface water protection; soil stockpile sampling; sampling frequency; and exporting of contaminated soils.							
Mitigation Measure 4.7-3 - Prior to Tentative Map recordation, a Preliminary Water System Design Report or equivalent from the Valencia Water Company describing the water supply system, pump system, and fire flow shall be submitted and approved by the LACFD. The Preliminary Water System Design Report shall list the design features that would ensure the required fire flow during a major wildfire incident. The Permittee shall be responsible for funding any	Design/Plan Check	Prior to Tentative Map recordation	Permittee	County Fire Department			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
necessary water infrastructure upgrades and/or improvements to meet fire flow requirements.							
PDF 7-1 - The two existing, plugged abandoned wells identified on the site as "dry holes" and labeled Gerald 1, API 03705406 (western well) and Overman 1, API 03705378 (eastern well) would be over 300 feet from any proposed residential pads planned for development by the Project. The locations of the former wells would be clearly shown on construction drawings that are reviewed and approved prior to the issuance of grading permits by the Building and Safety Division.	Submittal of Grading Plans	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			
PDF 7-2 - Prior to the commencement of mass grading activities, a preconstruction meeting with the selected grading contractor would be held to ensure that said	Submittal of preconstruction meeting summary including when meeting took	Prior to the commencement of mass grading activities and during the course of	Permittee	County Fire Department			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
contractor is aware of the area of petroleum staining and odors located on-site and west of Wickham Canyon so that it is handled and managed appropriately in accordance with regulatory guidelines including, but not limited to, DOGGR, the Regional Water Quality Control Board, and/or LACFD. Further, during the course of earthwork activities, the selected grading contractor shall notify the site owner and/or their designated representative (i.e. general contractor or other designated party) if additional areas of impacted soils are discovered on-site so that such areas would also be handled and managed appropriately.	place and who was in attendance	earthwork activities					
PDF 7-3 - The proposed water tank access road would provide a minimum paved width of 20 feet. The access maybe reduced to a minimum width of 15 feet if accepted by the Valencia Water	Design/Plan Check	Prior to recordation of the Tentative Map	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Company. (This PDF to be verified by LACFD prior to recordation of the Tentative Map.)							
PDF 7-4 - For the safety of construction personnel, neighboring homes, and firefighting safety in the wildland areas, the Project Applicant, under the supervision of the Fire Chief, would complete the Project roadways in accordance with applicable LACFD and/or County design standards in the area prior to grading permit issuance.	Design/Plan Check	Prior to issuance of grading permit	Permittee	County Department of Regional Planning			
PDF 7-5 – The Project would include two, 250,000-gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline within Pico Canyon with a secondary point of connection at Verandah Court. The proposed water infrastructure could be utilized for firefighting purposes.	Design/Plan Check	Prior to issuance of grading permit	Permittee	County Fire Department			
	Construction Inspection	Prior to issuance of building permit					

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
(This PDF to be verified by LACFD prior to recordation of the Tentative Map.)							
Hydrology and Water Quality							
Mitigation Measure 4.8-1 - Turf Reinforcing Mat (TRM) shall be placed along any grading within the on-site Pico Canyon and Wickham Canyon Creek reaches where the floodplain would run along the slopes adjacent to the drainage courses.	Submittal of Grading Plans	Prior to issuance of grading permit	Permittee	County Department of Public Works			
PDF 8-1 - The Project shall direct storm flows by closed pipe to a bio-infiltrataion basin or directly to storm drain inlets for high flow events. The bio-filtration basin would be located at the southeast corner of Pico Canyon Road and "A" Street. All water quality flows shall go to the bio- infiltration basin prior to entering the public storm drain system. The water quality basin would be designed with high flow bypasses to insure no	Design/Plan Check (Grading and/or storm drain plan)	Prior to issuance of grading and/or storm drain permit	Permittee	County Department of Public Works			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
damage to adjacent homes or slopes. The proposed condition would outlet all storm flows to the Pico Canyon Road drainage system. The County of Los Angeles would be the entity in charge of maintenance for this structure.							
PDF 8-2 - Pico Canyon Creek - Double 18'W x 12'H Concrete Box Culvert @ 348 feet long. This culvert would run below the proposed intersection of Pico Canyon Road and "A" Street. This culvert is proposed as a double box (each box at 18 ft wide by 12 ft high) and would be sized with a 2-foot-thick intermediate wall and 1-foot-thick outer side and top walls (as an initial assumption). This culvert would designed to be self cleaning for sediment transport purposes during the 50-YR Burned and Bulk (BB) capital event. This culvert would outlet approximately 220 feet upstream of the inlet of the	Design/Plan Check	Prior to issuance of road and flood permits	Permittee	County Department of Public Works			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
existing 24'W x 14'H box culvert structure of private drain (PD) 2495. Grouted riprap shall be installed at the proposed Pico Canyon Road culvert outlet apron, as well as wingwalls to reduce velocity at the inlet of the existing 24'W x 14'H reinforced concret box (RCB).							
PDF 8-3 - Wickham Canyon Creek #1– Single 12'W x 12'H Concrete Box @ 210 feet long. This culvert would run below pad slope grading and the proposed "A" Street. This culvert would outlet directly into Pico Canyon Creek approximately 125 feet upstream of the inlet for the larger double box culvert at Pico Canyon Road. The outlet structure of this culvert would be orientated at an efficient angle with the flow path of Pico Canyon Creek to minimize junction losses in this area. This culvert would be designed to be self cleaning for sediment transport purposes during the	Design/Plan Check	Prior to issuance of road and flood permits	Permittee	County Department of Public Works			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
50-YR BB capital event. The culvert would operate under Inlet Control and be equipped with a riprap lined outlet.							
PDF 8-4 - Wickham Canyon Creek #2– 12'W x 12'H Arch Bridge. This bridge would span over Wickham Canyon Creek along the proposed Verandah Court roadway corridor and would be upstream of the Wickham Canyon Creek #1 culvert. Alignment would be approximately perpendicular to that of the road.	Design/Plan Check	Prior to issuance of road and flood permits	Permittee	County Department of Public Works			
Noise							
Mitigation Measure 4.10-1 - Temporary construction noise barriers shall be implemented as follows: ▪ The Project shall ensure the provision of a minimum of 15 dBA noise barrier between the Project construction and the existing single-	Pre-Construction and Construction	Period site inspections during construction (as necessary)	Permittee	County Department of Regional Planning, Department of Public Health			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
family residential uses (R1) to the northeast of the Project site during grading/excavation phases when heavy construction equipment operate within 1000 feet from the nearest noise sensitive receptor locations. The temporary barrier shall be a minimum height of 20 feet and block the line-of-site between construction equipment and noise-sensitive receptors during grading/excavation phases. ▪ The Project shall ensure the provision of a minimum of 6 dBA noise barrier between the Project construction and the existing single-family residential uses (R2) along Verandah Court							

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
during grading/excavation phases.							
Mitigation Measure 4.10-2 - Construction activities shall be scheduled so as to avoid operating more than two pieces of heavy equipment simultaneously within 100 feet from residential uses, which causes high noise levels during grading/excavation phases.	Construction	Period site inspections during construction (as necessary)	Permittee	County Department of Regional Planning, Department of Public Health			
Public Services							
Fire Protection Services - Refer to Mitigation Measures 4.7-3.							
Schools - Refer to Mitigation Measures 4.12-1. The following mitigation measures are also prescribed.							
Mitigation Measure 4.11-1 - During construction, on-going communication shall be maintained with school administration at the Pico Canyon Elementary School, providing sufficient notice to forewarn students and parents/guardians when existing	Construction	Periodic communications with schools during construction (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
pedestrian and vehicle routes to the school may be impacted in order to ensure school traffic and pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.							
Mitigation Measure 4.11-2 - In order to ensure school traffic and pedestrian safety, during construction, construction vehicles shall not haul past the Pico Canyon Elementary School except when school is not in session. If that is infeasible, construction vehicles shall not haul during school arrival or dismissal times. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.	Construction	Period site inspections during construction (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.11-3 - During construction, crossing guards shall be provided by the Permittee in consultation with the Pico Canyon Elementary School, as appropriate, when safety of students may be compromised by construction-related activities at impacted school crossings in order to ensure school pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.	Construction	Period site inspections during construction (as necessary)	Permittee	County Department of Regional Planning			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Mitigation Measure 4.11-4 - During all hours of construction, temporary traffic control, signage, and/or flaggers shall be present on Pico Canyon Road to direct vehicular traffic and pedestrians around the construction site in order to ensure school traffic and pedestrian safety. This mitigation measure is to be verified by the Los Angeles County DRP in quarterly compliance certification reports submitted by the Project contractor.	Construction	Period site inspections during construction (as necessary)	Permittee	County Department of Regional Planning			
Traffic/Transportation							
Refer to Mitigation Measures 4.11-1 to 4.11-4 regarding construction traffic noise. The following mitigation measure is also prescribed.							
Mitigation Measures 4.12-1 - Prior to the issuance of an encroachment permit within the public right-of-way, the Permittee, in coordination with the Los Angeles County DPW, shall devise a Traffic Control Plan to be implemented during	Submittal of Traffic Control Plan	Prior to issuance of encroachment permit	Permittee	County Department of Public Works			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
construction of the Project. The Traffic Control Plan shall identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of construction activities associated with the Project improvements for Pico Canyon Road. The Traffic Control Plan shall be subject to final approval by the Los Angeles County DPW.							
Mitigation Measure 4.12-2 – Prior to Final Map clearance, the permittee shall be responsible for the payment of a pro-rata share contribution of four percent to convert the shared through/right-turn lane to one through lane and one right-turn lane on the east approach of the intersection of The Old Road and Stevenson Ranch Parkway. This conversion would result in a total of two left-turn lanes, two through lanes, and one right-turn lane on the east approach.	Payment of Pro-Rata Share	Prior to Final Map clearance	Permittee	County Department of Public Works			

Table 9-1 (Continued)

Mitigation Monitoring and Reporting Program

Project Design Features (PDF)/Mitigation Measures	Action Required (such as submittal of any applicable plans, etc.)	Timing	Responsible Party	Monitoring/Enforcing Agency	Compliance Verifications		
					Initial	Date	Comments
Additionally, the permittee shall be responsible for the payment of a pro-rata share contribution of four percent to add an overlap phase for the westbound right turn movement.							

Appendix A

Notice of Preparation/NOP Comment Letters

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Richard J. Bruckner
Director

NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND PUBLIC SCOPING MEETING

TODAY'S DATE: September 11, 2014

TO: State Clearinghouse, Responsible Agencies, Trustee Agencies, Organizations and Interested Parties

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report in Compliance with Title 14, section 15082(a) of the California Code of Regulations

The County of Los Angeles ("County") is the lead agency pursuant to the California Environmental Quality Act ("CEQA") and intends to prepare an Environmental Impact Report ("EIR") for the proposed project identified below. The County has prepared this Notice of Preparation ("NOP") to provide Responsible Agencies and other interested parties with information describing the project and to identify its potential environmental effects pursuant to State requirements.

AGENCIES: The County requests your agency's views on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project, in accordance with Title 14, section 15082(b) of the California Code of Regulations. Your agency will need to use the EIR prepared by the County when considering any permits that your agency must issue, or other approval for the project.

ORGANIZATIONS AND INTERESTED PARTIES: The County requests your comments and concerns regarding the environmental issues associated with construction and operation of the proposed project.

PROJECT & PERMIT(S):"Aidlin Hills", Project No. 00-136 / Vesting Tentative Tract Map No. 52796 / Conditional Use Permit No. 00-136 / Oak Tree Permit No. 00-136

PROJECT APPLICANT: Lennar Homes

PROJECT LOCATION: APNs 2826-020-020 through 024, 2826-020-030 through 033, and 2826-097-003; 26300 block of Pico Canyon Road, approximately 1.6 miles west of Interstate Highway 5 in the unincorporated community of Stevenson Ranch

PROJECT DESCRIPTION: To create 102 single-family residential lots and associated supporting infrastructure, including local roadways, water tanks and a pump station, water quality treatment basins, and a fire access road on 13 infrastructure lots; a

320 West Temple Street ▪ Los Angeles, CA 90012 ▪ 213-974-6411 ▪ Fax: 213-626-0434 ▪ TDD: 213-617-2292

Conditional Use Permit ("CUP") for a density-controlled development in a hillside area and for grading exceeding 100,000 cubic yards of soil combined cut and fill materials; and an Oak Tree Permit for the removal of one oak tree (non-heritage).

M

Based on a preliminary review of the proposed project consistent with section 15060 of the CEQA Guidelines, the County has determined that an EIR should be prepared for this proposed project. In addition, consistent with section 15082 of the CEQA Guidelines, the County has identified the following probable environmental effects of the project, which will be addressed in the EIR for this project:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Noise
- Public Services
- Recreation
- Transportation and Traffic

The County has determined that there is not a likelihood of potentially significant effects related to the following environmental topics:

- Agricultural/Forest Resources
- Energy
- Mineral Resources
- Population and Housing
- Recreation
- Utilities

The County proposes that the EIR indicate the reasons why these effects were determined not to be significant and are therefore not addressed in detail in the EIR.

G M **G** The County will conduct a public scoping meeting for the purpose of soliciting oral and written comments from interested parties as to the appropriate scope and content of the EIR.

All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the EIR. The scoping meetings will include a brief presentation of the project to be addressed in the EIR and will provide attendees with an

opportunity to provide input to the scope of the EIR. The Scoping Meeting will be held on **Thursday, October 16, 2014**, from 6:00 to 8:00 p.m. at the following location:

Pico Canyon Elementary School – Multipurpose Room
25255 Pico Canyon Road
Stevenson Ranch, CA 91381
(661) 291-4080

Translation in other languages can be made available at the meeting upon prior request. Please submit translation requests at least seven business days in advance of any scheduled meeting to Mr. Tyler Montgomery, tmontgomery@planning.lacounty.gov.

The County has determined to make this NOP available for public review and comment pursuant to Title 14, section 15082(b) of the California Code of Regulations. The comment period for the NOP ends on October 29, 2014.

Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the EIR.

Please direct all written comments to the following address:

Mr. Tyler Montgomery
County of Los Angeles
Department of Regional Planning
Land Divisions Section
320 West Temple Street, Room 1382
Los Angeles, CA 90012
Tel: 213-974-6433
tmontgomery@planning.lacounty.gov

All written responses will be included as Appendices in the Draft EIR and their contents considered in accordance with State and County environmental guidelines.

MThe NOP and Initial Study are available for public review during regular business hours at the Los Angeles County Department of Regional Planning address listed above and the following locations:

• Valencia Public Library
23743 West Valencia Boulevard
Santa Clarita, CA 91355

• Newhall Public Library
22704 West 9th Street
Santa Clarita, CA 91321

The public is also encouraged to visit the Department of Regional Planning's website to review the initial study at http://planning.lacounty.gov/case/view/00-136/.

Thank you for your participation in the environmental review of this project.



PCR

N

0 0.5 1 Miles

Regional Location and Project Vicinity Map

Aidlin Hills

Source: ESRI Street Map, 2010; PCR Services Corporation, 2014.

FIGURE

1

Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning

Project title: Aidlin Hills Project/ Project No. 00-136/ Case No(s). VTTM 52796, CUP 00-136, OTP 00-136.

Lead agency name and address: Los Angeles County, 320 West Temple Street, Los Angeles, CA 90012

Contact Person and phone number: Jodie Sackett, Land Divisions, (213) 974-6433

Project sponsor's name and address: Denise Williams-Montagna, Project Manager, Lennar Homes, 980 Montecito Drive, Suite 302, Corona, CA 92879

Project location: The Aidlin Hills Project ("Project") site is located in the northern foothills of the Santa Susanna Mountains in an unincorporated section of Los Angeles County ("County") known as Stevenson Ranch. Regional access to the Project site is provided via Interstate 5 ("I-5") located approximately 1.6 miles east of the Project site. Local access to the Project site is provided via Pico Canyon Road, a County master-planned arterial road. The regional context and local setting of the Project site are illustrated on **Figure 1**, *Regional Location and Project Vicinity Map.*

APN: 2826-020-020 through 024, 2826-020-030 through 033, and 2826-097-003

USGS Quad: Newhall and Oat Mountain

Gross Acreage: 230.5

General plan designation:

Community/Area wide Plan designation: Santa Clarita Valley Area Plan – Hillside Management (HM), Urban 2 (U2), and Floodway/Floodplain (W)

Zoning: A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size)

Surrounding land uses and setting: A single-family residential community abuts the Project site on the east. The area to the west of the Project site is mostly undeveloped within Pico Canyon, but this area includes the remaining historic buildings of Mentryville. Mentryville is a state historic landmark operated by the Santa Monica Mountains Conservancy ("SMMC"). The Pico Canyon Trail, a four mile trail mostly adjacent to Pico Canyon Road and providing access to Mentryville, meanders through Pico Canyon in areas generally to the west and southwest of the Project site. The areas directly to the north and south of the Project site are mostly undeveloped with moderate to steep variations in topography. **Figure 2**, *Aerial Photograph*, provides an aerial view of the Project site and surrounding uses.



PCR

N

0 0.5 1 Miles

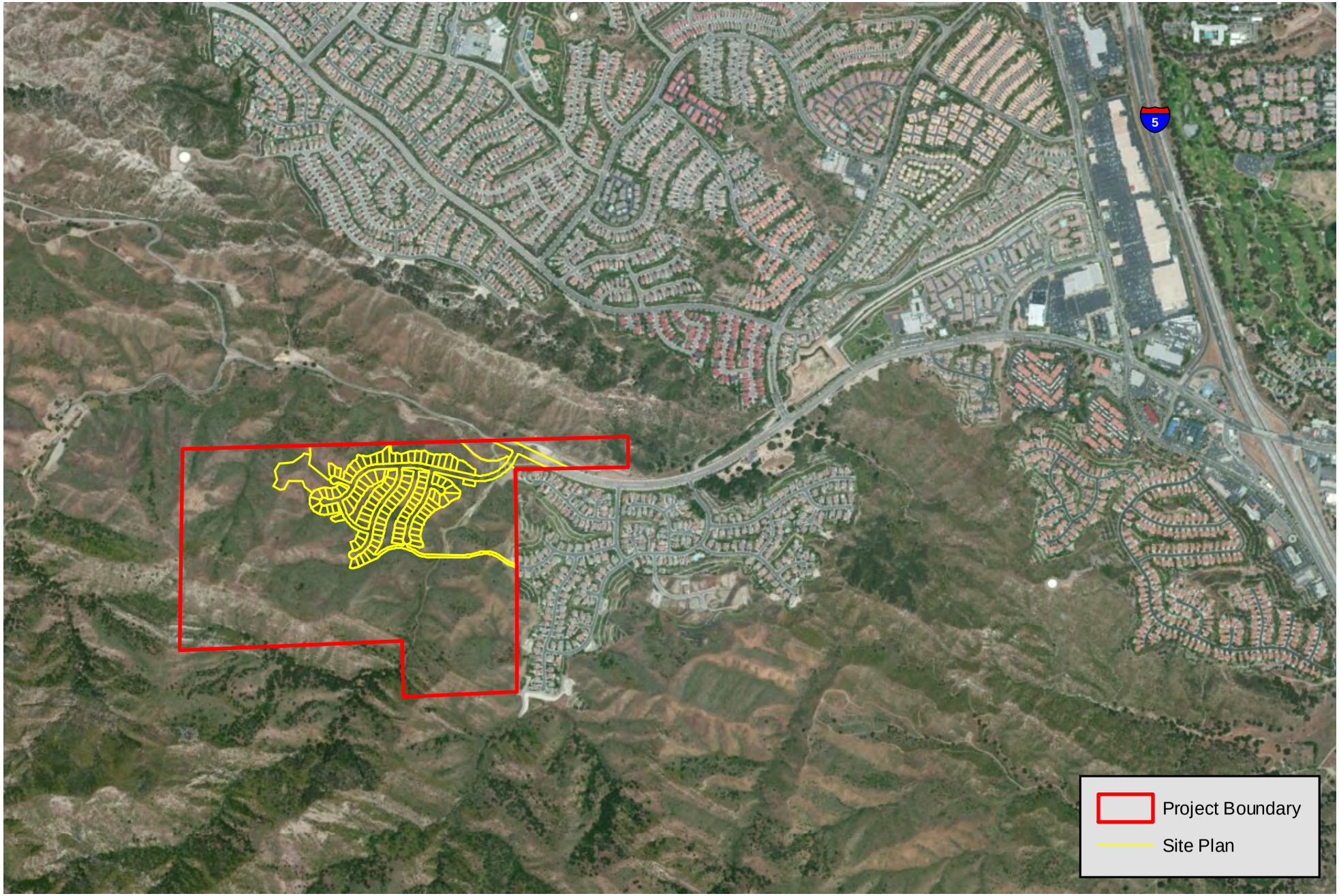
Regional Location and Project Vicinity Map

Aidlin Hills

Source: ESRI Street Map, 2010; PCR Services Corporation, 2014.

FIGURE

1



PCR

N

0 1,500 3,000 Feet

Aerial Photograph

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2014.

FIGURE

2

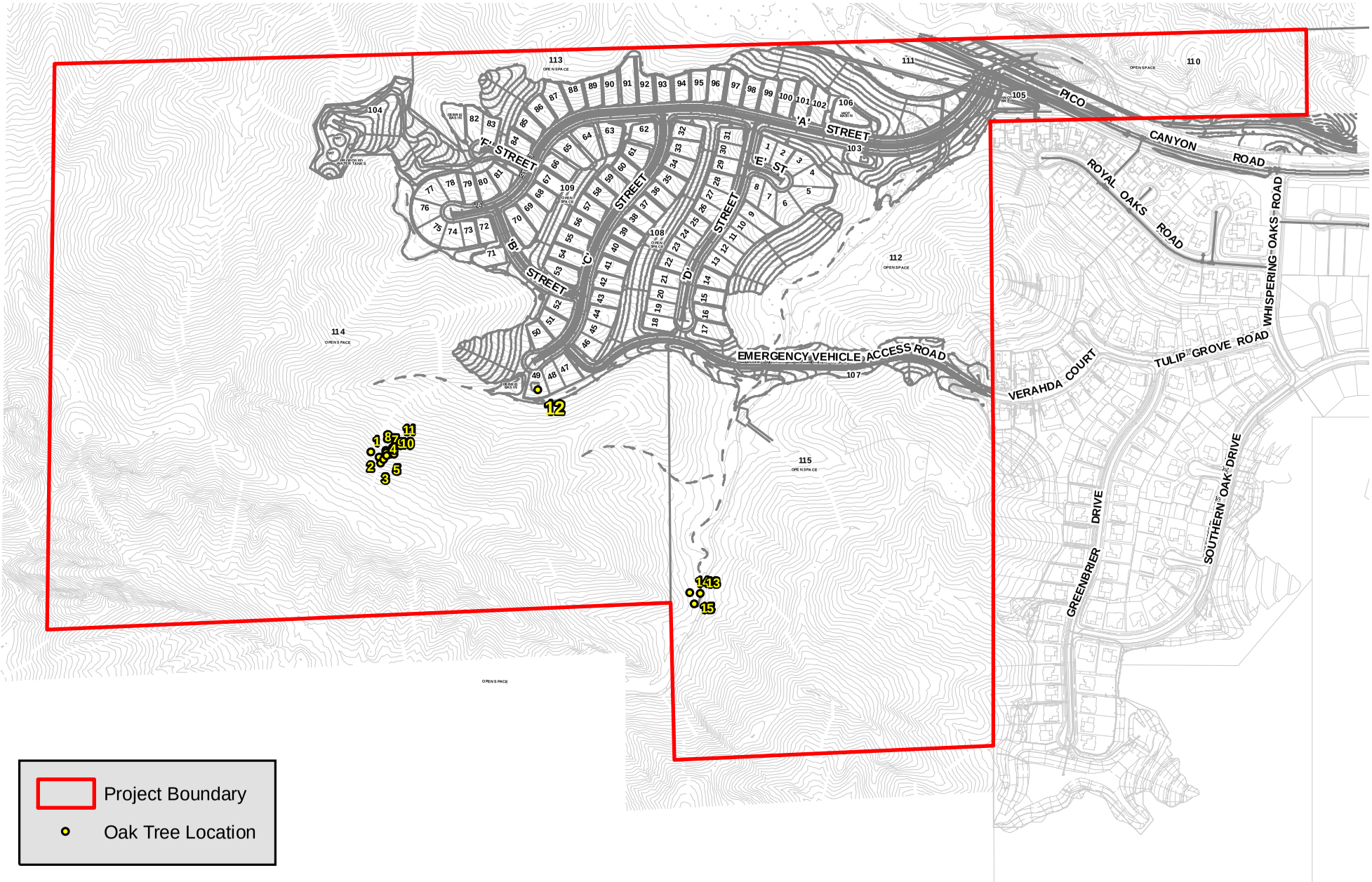
Existing conditions: The Project site is primarily vacant and consists of undeveloped terrain with moderate to steep variations in topography. Several small to large drainage courses traverse through the site. Vegetation within the Project site includes, but is not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland in the process of transition as they recover from a wildfire in 2010. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site. Various dirt access roads and trails traverse though the site.

Description of project: The Project applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, two 250,000 gallon water storage tanks and a pump station, water quality treatment basins, and a fire access road within a 230.5-acre Project site. The proposed residential lots would occupy approximately 20.8 acres of the Project site. The remaining improved areas of the Project site would include 3.9 acres for the water tanks/pump station, 1.5 acres of water quality basins, a 1.4-acre fire access road, and 9.6 acres of public streets. **Figure 3, Vesting Tentative Tract Map,** illustrates the Project's proposed site plan. On-site drainage would be diverted to wetland filtration ponds for cleansing prior to discharge into Pico Creek. The Project applicant proposes to widen the segment of Pico Canyon Road that generally traverses the northern boundary of the Project site, in accordance with the approved alignment of the road east of the site; the improvements also will be consistent with the County's designation of the roadway as a major arterial. A 24-foot wide paved emergency vehicle access road to the east, connecting with Verandah Court, would be maintained to provide emergency access to the private properties southeast of the Project site. The Project site is located within Fire Zone 4, which is a Very High Fire Hazard Severity Zone ("VHFHSZ"). Thus, a fuel modification plan for the perimeter portions of the proposed development envelope will be required.

The Project applicant also proposes the preservation of approximately 193.3 acres of undeveloped, natural area within the southern and western portions of the Project site. The Project would include an open area between Pico Creek and Upper Wickham Canyon after realignment of Wickham Canyon. The Canyon would be enhanced by the planting of additional native trees and shrubs.

The following table provides a summary of the proposed land uses:

Area Type	Lot Numbers	Number of Lots	Total Acreage
Single-Family Residences	1 – 102	102	20.8
Water Tanks/Pump Station	103 – 104	2	3.9
Open Space (Water Quality Basins)	105 – 106	2	1.5
Open Space (Fire Access Road)	107	1	1.4
Open Space (Landscape/Natural)	108 – 115	8	193.3
Public Streets	N/A	N/A	9.6
Total		**115**	**230.5**



Vesting Tentative Tract Map

Aidlin Hills

Source: Alliance Land Planning & Engineering Inc., 2014; PCR Services Corporation, 2014.

FIGURE

3

Grading: The Project would require approximately 1,300,000 cubic yards of cut material, with all cut material being used as fill material within the site. Accordingly, the Project grading plan would balance the grading quantities such that no import or export of soil would be required. Grading of the site would occur in the northerly portion of the site on moderate/steep slopes and valleys in order to remediate existing geologic conditions and to create stable building pads and internal roadways. Manufactured slopes would have a maximum grade of 2 horizontal to 1 vertical. The grading plan for the Project would fully comply with County grading standards.

Construction Schedule: Subject to Project approval and issuance of grading and construction permits, Project construction is conceptually anticipated to commence in November 2015 and conclude in June 2019 with grading operations anticipated to commence in November 2015 and conclude in June 2016. Infrastructure installation would commence in May 2016, starting with storm drains (about four months) and followed by sewer (about six months), water (about six months), street hardscape (about two months) and other utilities (about four months). The majority of these steps would overlap. Residential house construction is estimated to begin in January 2017, being constructed in multiple phases over an approximately two and one half year period. .

Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

Implementation of the Project may include, but may not be limited to, the following approvals:

- Vesting Tentative Tract Map for 115 total lots (102 single-family residential lots, two lots for water tanks/pump station, two lots for open space/water quality basins, one lot for open space/fire access road, and eight lots for open space/landscape/natural);
- Conditional Use Permit ("CUP") for a density-controlled development in a hillside area and for grading exceeding 100,000 cubic yards of soil materials;
- Oak Tree Permit for the removal of one oak tree;
- Section 404 permit from the U.S. Army Corps of Engineers ("USACE") for impacts to Waters of the U.S.;
- Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife ("CDFW") for impacts to streams; and
- Section 401 Certification from the Los Angeles Regional Water Quality Control Board ("LARWQCB") for impacts to surface water quality.

Major projects in the area (Partial List, not complete for Cumulative Analysis):

Project/Case No.	*Description and Status*
TR53653/RCUP200500088	*Land Division for 92 SFR lots; 93 senior condo units (Approved March 2009)*
00-210/TR53295/CUP 00-210	*Land Division for 408 SFR lots and 1,232 multi-family units, 726,000 sq ft of commercial space, and elementary school*
TR060678/RCUP200500150	*Land Division for 699 SFR lots and 2,918 multi-family units; 66,400 sq ft of commercial space, elementary, middle and high schools*
TR061996/RCUP200500122	*Land Division for 1,004 SFR lots; 2,453 multi-family units; 502,000 sq ft of commercial space, and senior-assisted living unit.*

Reviewing Agencies:

Responsible Agencies

- ☐ None
- Regional Water Quality Control Board:
  - ☒ Los Angeles Region
  - ☐ Lahontan Region
- ☐ Coastal Commission
- ☒ Army Corps of Engineers
- ☒ Valencia Water Company

Special Reviewing Agencies

- ☐ None
- ☒ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☐ National Forest
- ☐ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mountains Area
- ☐

Regional Significance

- ☐ None
- ☐ SCAG Criteria
- ☐ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area
- ☐

Trustee Agencies

- ☐ None
- ☒ State Dept. of Fish and Wildlife
- ☒ State Dept. of Parks and Recreation
- ☐ State Lands Commission
- ☐ University of California (Natural Land and Water Reserves System)

County Reviewing Agencies

- ☒ DPW:
  - Land Development Division (Grading & Drainage)
  - Geotechnical & Materials Engineering Division
  - Watershed Management Division (NPDES)
  - Traffic and Lighting Division
  - Environmental Programs Division
  - Sewer Maintenance Division
- ☒ Fire Department
  - Forestry, Environmental Division
  - Planning Division
  - Land Development Unit
  - Health Hazmat
- ☒ Sanitation District
- ☒ Public Health/Environmental Health Division: Toxics Epidemiology Program (Noise)
- ☒ Sheriff Department
- ☒ Parks and Recreation
- ☒ Subdivision Committee
- ☒ Public Libraries

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project.

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

DETERMINATION: (To be completed by the Lead Department.)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature (Prepared by) — Date: 8-21-14

Signature (Approved by) — Date: 8/25/94

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Department cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) The explanation of each issue should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significance. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

8) Climate Change Impacts: When determining whether a project's impacts are significant, the analysis should consider, when relevant, the effects of future climate change on : 1) worsening hazardous conditions that pose risks to the project's inhabitants and structures (e.g., floods and wildfires), and 2) worsening the project's impacts on the environment (e.g., impacts on special status species and public health).

1. AESTHETICS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐

Potentially Significant Impact. The topography of the Project site and surrounding areas is characterized by varied moderate to steep topography. Surrounding areas also have varied topography which could provide views of the site as part of a larger scenic view. Project implementation would modify the existing topography, remove existing site vegetation, and introduce residential uses on the currently undeveloped site changing the character of views in the area. The extent of the site's visual change, including potential impacts to a scenic vista, will be further evaluated in an EIR.

b) Be visible from or obstruct views from a regional riding or hiking trail?	☒	☐	☐	☐

Potentially Significant Impact. The four-mile Pico Canyon Trail meanders through Pico Canyon in areas generally to the west and southwest of the Project site; refer to Figure 10.1, Regional Trail System, of the County General Plan 2035 (Draft 2014). The County General Plan, Santa Clarita Valley Area Plan Trails Map, also identifies a future trail paralleling Pico Canyon Road north of the Project site. The extent of potential view modifications from regional trails resulting from development of the Project site will be further evaluated in an EIR.

c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☒	☐	☐

Potentially Significant Impact. According to Exhibit CO-7, Scenic Resources, of the Santa Clarita Valley Area Plan 2012, no scenic resources are located within the Project site or immediately adjacent areas. The Project site is located approximately 1.6 miles west of I-5. According to Figure 9.7, Scenic Highways, of the General Plan 2035 (Draft 2014), a portion of I-5 southeast of the Project site is designated as an eligible scenic highway. Due to the distance and intervening topography, the Project site is not visible from the scenic highway segment. Thus, no views of the site are available from a scenic highway.

Mentryville and the historic Pico Canyon Oil Field Well No. 4, both state historic landmarks, are located to the west of the Project site at the terminus of Pico Canyon Road; refer to Figure 9.9, Historic Resource Sites Policy Map, of the County General Plan 2035 (Draft 2014) and Exhibit CO-6, Cultural and Historical Resources, of the Santa Clarita Valley Area Plan 2012. Due to intervening topography, the areas proposed for development as part of the Project would not be visible from these historic landmark sites.

According to the Oak Tree Survey Update (2013) prepared by PCR, a total of 15 coast live oaks are located on-site. At least one isolated oak tree lies within the proposed Project grading limits or fuel modification zone. While the removal of any oak trees would need to be conducted in accordance with Chapter 22.56 – Part 16 ("Oak Tree Ordinance") of the County Zoning Code ("Zoning Code"), the extent of the potential impacts resulting from the loss of one on-site oak tree will be further evaluated in an EIR Biological Resources section.

d) Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features?	☒	☐	☐	☐

Potentially Significant Impact. Due to the fact that the Project site consists of primarily of vacant and undeveloped land, the introduction of residential uses would alter the visual character and quality of the Project site. The extent of impacts to the visual quality and character of the site and its surroundings will be further evaluated in an EIR.

e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

Potentially Significant Impact. The Project would introduce one- and two-story single-family homes producing minimal shadows confined within the Project area and that would be similar to the adjacent single-family residential uses to the east of the site. As such, shadows generated by the Project would not adversely affect views in the area. Impacts associated with glare are not anticipated from the proposed residential uses. Currently, there are no existing light sources on the Project site. The Project would include nighttime lighting that would comply with the Rural Outdoor Lighting District (Chapter 22.44 – Part 9) of the Zoning Code. Nonetheless, the potential effects of nighttime lighting on the area will be further evaluated in an EIR.

References:

- California Department of Transportation, State Scenic Highway Mapping System, http://www.dot.ca.gov/hq/LandArch/scenic_highways/, accessed January 2014.
- Google Earth, Aerial Views, accessed January 2014.
- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit CO-6, Cultural and Historical Resources and Exhibit CO-7, Scenic Resources.
- Los Angeles County General Plan, Santa Clarita Valley Area Plan, Trails Map, adopted by the Board of Supervisors on January 16, 2007.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 9.7, Scenic Highways Map, Figure 9.9, Historic Resource Sites Policy Map, and Figure 10.1, Regional Trail System.
- Oak Tree Survey Update for Tentative Map #52796 in the Stevenson Ranch Area, prepared by PCR Services Corporation, dated June 27, 2013.

2. AGRICULTURE / FOREST

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	***Less Than Significant Impact with Mitigation Incorporated***	***Less Than Significant Impact***	***No Impact***
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

No Impact. The Project site and most surrounding areas do not contain agricultural uses or related operations; refer to Figure 9.5, Agricultural Resource Areas Policy Map, of the General Plan 2035 (Draft 2014). The Project site is not located on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. Therefore, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. No impact would occur in this regard. Further analysis of this issue in an EIR is not necessary.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?	☐	☐	☒	☐

Less than Significant Impact. The Project site is zoned A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size. Single-family residential uses are consistent with A-2 zoning. The Project site is not designated an Agricultural Opportunity Area and covered by a Williamson Act contract. The Project's consistency with the current zoning designations for the Project will be analyzed in an EIR. This issue will be assessed as part of the Land Use and Planning analysis in an EIR (refer also to Response No. 11.b, below).

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))?	☐	☐	☐	☒

No Impact. The Project site is not zoned for forestry uses. No forest land or timberland zoning is present on the site or in the surrounding area. As such, the Project would not conflict with existing zoning for forest land or timberland and no impact would occur in this regard. Fifteen oak trees are on the Project

site and a single oak not part of an oak woodland is proposed to be removed. Further analysis of this issue in an EIR is not necessary.

d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

No Impact. No forest land exists on the Project site. As such, the Project would not result in the loss of forest land or conversion of forest land to non-forest use and no impact would occur in this regard. Further analysis of this issue in an EIR is not necessary.

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?	☐	☐	☐	☒

No Impact. Since there are no agricultural uses or related operations and no forest land on or near the Project site, the Project would not involve the conversion of farmland or forest land to other uses, either directly or indirectly. No impacts to agricultural or forest land would occur. Further analysis of this issue in an EIR is not necessary.

References:

- Los Angeles County General Plan 2035 (Draft 2014), Figure 9.5, Agricultural Resource Areas Policy Map.
- State of California Department of Conservation Website, California Important Farmland Finder, http://maps.conservation.ca.gov/ciff/ciff.html, accessed January 2014.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?	☒	☐	☐	☐

Potentially Significant Impact. The Project site is located within the 6,600 square mile South Coast Air Basin ("Basin"); refer to Figure 8.1, Air Basins, of the General Plan 2035 (Draft 2014). The South Coast Air Quality Management District ("SCAQMD") is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment [i.e., ozone, carbon monoxide, particulate matter (PM) - PM_{10}, and $PM_{2.5}$]. The Project would be subject to the SCAQMD's Air Quality Management Plan ("AQMP"). The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments ("SCAG").

The Project would contribute to regional and local air emissions during construction and operation. Construction activities would produce emissions from construction equipment and fugitive dust. Project operations would increase the amount of traffic in the area and would consequently generate vehicle emissions that could affect implementation of the AQMP. As such, it is recommended that the Project's consistency with the AQMP be addressed in an EIR.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐

Potentially Significant Impact. As discussed in Response No. 3.a, the Project site is located within the Basin, which is characterized by relatively poor air quality. State and Federal air quality standards are often exceeded in many parts of the Basin. Implementation of the Project would increase emissions on both a short term (i.e., during construction) and long-term basis in a non-attainment area. Short-term construction emissions would result from a number of sources, including but not limited to, the operation of heavy-duty construction equipment and on-site grading. Long-term emissions would result from motor vehicles traveling to and from the site once the Project is fully operational and stationary sources through the use of natural gas and electricity. As development of the Project would result in increased air emissions associated with construction and operation, it is recommended that this issue be analyzed further and documented in an EIR.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ☒ ☐ ☐ ☐

Potentially Significant Impact. Since the Project would result in increases in air emissions from construction and operations (e.g., vehicle trips and stationary sources) in the Basin, which is currently in non-attainment of Federal and State air quality standards for ozone, carbon monoxide, PM_{10} and $PM_{2.5}$, it is recommended that this issue be analyzed further in an EIR.

d) Expose sensitive receptors to substantial pollutant concentrations? ☒ ☐ ☐ ☐

Potentially Significant Impact. Construction activities and operation of the proposed residential uses would increase air emissions above current levels. Land uses that are generally considered more sensitive to air pollution than others are as follows: hospitals, schools, residences, playgrounds, child care centers, athletic facilities, and retirement/convalescent homes. Sensitive receptors in the Project vicinity consist of a residential community located immediately to the east of the Project site. The nearest schools, Pico Canyon Elementary School, Rancho Pico Junior High School, and West Ranch High School are located approximately 0.8 miles east, 1.5 miles north, and 1.5 miles north of the Project site, respectively. Pico Canyon Park and Jake Kuredjian Park are located approximately 0.5 mile east and 0.7 miles east of the Project site, respectively. Construction and operation of the Project could result in increases in air emissions that could impact nearby sensitive receptors. Therefore, it is recommended that this issue be analyzed further in an EIR.

e) Create objectionable odors affecting a substantial number of people? ☐ ☐ ☒ ☐

Less Than Significant Impact. No objectionable odors affecting a substantial number of people are expected as a result of either construction or operation of the Project. Odors are typically associated with industrial projects involving use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. Odors are also commonly associated with such uses as sewage treatment facilities and landfills. Odors occasionally develop where water is temporarily held for prolonged periods such as in retention basins. As the Project involves residential development and has no or limited elements related to these types of uses that can cause objectionable odors, less than significant impacts would occur. Further analysis of this issue in an EIR is not necessary. The potential for odors originating from retention basins and similar water quality infrastructure is will be addressed in the Hydrology and Water Quality section.

References:

- Google Earth, Aerial Views, accessed January 2014.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 8.1, Air Basins.

4. BIOLOGICAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☒	☐	☐	☐

Potentially Significant Impact. Project implementation would convert the Project site's primarily vacant and undeveloped land to residential uses. Results of previously conducted biological-related studies and focused surveys in and around the Project site are summarized below. As summarized therein, the Project site has the potential to support candidate, sensitive and/or special status species, as well as sensitive habitat.

According to the results of focused surveys conducted in 2003, no coastal California gnatcatchers (*Polioptila californica californica*) were detected on the Project site. The Project site is not designated as critical habitat for this species, although land designated by the USFWS as critical habitat is south and east of the Project site. Two bird species, the rufous-crowned sparrow (*Aimophila ruficeps*) and the prairie falcon (*Falco mexicanus*), both considered to be a California Species of Special Concern by the CDFW, were detected on-site. The rufous-crowned sparrow likely nests on-site.

According to the Initial Study Wildlife Assessment (1999 and 2000) prepared by Robert A. Hamilton, the following sensitive species have a moderate to high potential for occurrence on-site: California legless lizard (*Anniella pulchra*), coast horned lizard (*Phrynosoma blainvillii*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), golden eagle (*Aquila chrysaetos*), Cooper's hawk (*Accipiter cooperii*), prairie falcon (*Falco mexicanus*), ashy rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), spotted bat (*Euderma maculatum*), small-footed myotis (*Myotis evotis*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), Yuma myotis (*Myotis yumanensis*), California mastiff bat (*Eumops perotis californicus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), San Diego desert woodrat (*Neotoma lepida intermedia*), and southern grasshopper mouse (*Onychomys torridus ramona*).

According to the Oak Tree Survey Update (2013) prepared by PCR, a total of 15 coast live oaks are located on-site. At least one isolated oak tree lies within the proposed Project grading limits or fuel modification zone.

According to the results of the Botanical Inventory (2005) prepared by Envicom, four sensitive species considered by the CDFW listing of Special Vascular Plants (July 2005), were located on-site: slender mariposa lily (*Calochortus clavatus* ssp. *gracilis*) – California Native Plant Society ("CNPS") Rank 1B, Plummer's mariposa lily (*Calochortus plummerae*) – CNPS Rank 1B, southern California black walnut (*Juglans californica*) – CNPS Rank 4, and Peirson's morning glory (*Calystegia peirsonii*) – CNPS Rank 4.

According to the CNDDB 2014, the following sensitive plant species occur within the Project vicinity: Braunton's milkvetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), round-leaved filaree (*California macrophylla*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), Southern California black walnut (*Juglans californica*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), , Plummer's mariposa lily (*Calochortus plummerae*), Peirson's morning-glory (*Calystegia peirsonii*), Santa Susana tarplant (*Deinandra minthornii*), slender-horned spineflower (*Dodecahema leptoceras*), Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*), many-stemmed dudleya (*Dudleya multicaulis*), Palmer's grapplinghook (*Harpagonella palmeri*), Newhall sunflower (*Helianthus inexpectatus*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), Davidson's bush-mallow (*Malacothamnus davidsonii*), white-veined monardella (*Monardella hypoleuca* ssp. *hypoleuca*), spreading navarretia (*Navarretia fossalis*), Ojai navarretia (*N. ojaiensis*) , Piute Mountain navarretia (*N. setiloba*), short-joint beavertail cactus (*Opuntia basilaris* var. *brachyclada*), chaparral ragwort (*Senecio aphanactis*), and Greta's aster (*Symphyotrichum greatae*). Sensitive plant communities recorded in the Project vicinity include California walnut woodland, Cismontane alkali marsh, Mainland cherry forest, Riversidian alluvial fan sage scrub, Southern riparian scrub, Southern coast live oak riparian forest, Southern cottonwood willow riparian forest, Southern mixed riparian forest, Southern sycamore alder riparian woodland, Southern willow scrub, Valley needlegrass grassland, and Valley oak woodland.

In addition to the many previous biological studies, the EIR will incorporate the results of an updated biological resources assessment that will provide a current and accurate assessment of biological resources impacts resulting from the proposed Project.

b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS? ☒ ☐ ☐ ☐

Potentially Significant Impact. The Project site is primarily vacant and consists of undeveloped terrain with moderate to steep variations in topography. Vegetation within the Project site includes, but not limited to, chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland in the process of transition as they recover from a wildfire in 2010. In addition, according to the Biological Constraints Due Diligence Report (2013), a cluster of 11 coast live oaks located in the southwestern portion of the Project site are located closely enough to constitute a coast live oak woodland.

Sensitive plant communities recorded in the Project vicinity include California walnut woodland, Cismontane alkali marsh, Mainland cherry forest, Riversidian alluvial fan sage scrub, Southern riparian scrub, Southern coast live oak riparian forest, Southern cottonwood willow riparian forest, Southern mixed riparian forest, Southern sycamore alder riparian woodland, Southern willow scrub, Valley needlegrass grassland, and Valley oak woodland.

As indicated above in Response No. 4.a, the EIR will incorporate the results of an updated biological resources assessment that will provide a current and accurate assessment of biological resources impacts resulting from the proposed Project, including impacts on sensitive natural communities identified in local or regional plans, policies, regulations or by CDFW or USFWS.

c) Have a substantial adverse effect on federally or state protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, and drainages) or waters of the United States, as defined ☒ ☐ ☐ ☐

by § 404 of the federal Clean Water Act or California Fish & Game code § 1600, et seq. through direct removal, filling, hydrological interruption, or other means?

Potentially Significant Impact. Two blue-line streams, Wickham Canyon and Pico Canyon, originating in the northern foothills of the Santa Susanna Mountains appear on the Newhall and Oat Mountain USGS maps. According to the Wetland Delineation Report (2000) prepared by Envicom, the Project site contains 1.25 acres of USACE and 6.41 acres of CDFW jurisdictional wetlands or "waters of the U.S". Updated surveys assessing the proposed Project design will be conducted as part of the biological resources assessment to be included in an EIR to determine if there is potential for significant impacts to federally protected wetlands.

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? ☒ ☐ ☐ ☐

Potentially Significant Impact. Currently, the Project site consists of mostly vacant and undeveloped land and there is unrestricted wildlife access through the site. According to Figure 9.2, Regional Habitat Linkages, of the General Plan 2035 (Draft 2014), the Project site is located within a larger area of regional wildlife linkages and wildlife movement. Project implementation would convert a portion of the Project site to suburban development that could create obstacles for wildlife movement in the Project area. Based on the updated biological resources assessment, an EIR will further analyze wildlife movement and determine if the Project would substantially interfere with a wildlife corridor or wildlife movement across the site.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, southern California black walnut, etc.)? ☐ ☒ ☐ ☐

Potentially Significant Impact. As indicated above in Response No. 4.b., the Biological Constraints Due Diligence Report (2013) concluded a cluster of 11 coast live oaks located in the southwestern portion of the Project site are located closely enough to constitute a coast live oak woodland. The EIR will incorporate the results of an updated biological resources assessment that will provide a current and accurate assessment of biological resources impacts resulting from the proposed Project, including impacts on oak woodlands.

f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.56, Part 16), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, § 22.56.215), and Sensitive Environmental Resource Areas (SERAs) (L.A. County Code, Title 22, Ch. 22.44, Part 6)? ☒ ☐ ☐ ☐

Potentially Significant Impact. Due to conversion of undeveloped land to urban uses, the proposed Project has the potential to conflict with local policies or ordinances protecting biological resources. As mentioned above in Response 4.a., coast live oaks are located on-site. As part of the updated biological resources assessment to be prepared, potential impacts to the on-site oak trees and the Project's consistency with local policies and ordinances will be included. The Project site is located within a proposed SEA under the Draft General Plan 2035 (2014). The results of the analysis will be included in an EIR.

g) Conflict with the provisions of an adopted state, regional, or local habitat conservation plan? ☐ ☐ ☒ ☐

Less than Significant Impact. The Project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The analysis an EIR will discuss the Project location in relation to adopted habitat conservation plans in the Project vicinity.

References:

- Biological Constraints Due Diligence Report for Tentative Map #52796 in the Stevenson Ranch Areas, prepare by PCR Services Corporation, dated July 1, 2013.
- Initial Study Assessment: Vegetation and Flora, prepared by Verna Jigour Associates, dated July 3, 1999.
- Initial Study Wildlife Assessment Aidlin Westerly Property, Tentative Tract 52796, prepared by Robert A. Hamilton, dated July 19, 1999 and May 31, 2000.
- Jurisdiction Delineation Technical Report for Waters of the U.S. Wetlands, and Riparian Habitat, prepared by Envicom Corporation, dated July 26, 1999.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 9.2, Regional Habitat Linkages.
- Oak Tree Survey Update for Tentative Map #52796 in the Stevenson Ranch Area, prepared by PCR Services Corporation, dated June 27, 2013.
- Results of 2003 Focused Surveys for the Coastal California Gnatcatcher, prepared by BioResource Consultants, dated September 10, 2003.
- Wetland Delineation Report, the Aidlin Project, prepared by Envicom Corporation, dated June 2000.
- Wickham Property Botanical Inventory, 2005, prepared by Envicom Corporation, dated November 2005.

5. CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?	☒	☐	☐	☐

Potentially Significant Impact. Mentryville and the historic Pico Canyon Oil Field Well No. 4, both state historic landmarks, are located approximately ¾ mile (3960 feet) to the west of the Project site at the terminus of Pico Canyon Road; refer to Figure 9.9, Historic Resource Sites Policy Map, of the County General Plan 2035 (Draft 2014) and Exhibit CO-6, Cultural and Historical Resources, of the Santa Clarita Valley Area Plan 2012. A home/ranch complex and a honey house (structure previously used for bee keeping operation) were previously located in the northeastern portion of the Project site, south of Pico Canyon Road. A riveted iron standpipe, representing the remnants of exploratory oil well drilling is located east of the dirt road through Wickham Canyon in the northeaster portion of the Project site. According to the Historic Resources Technical Report (1999) and the Cultural Resources Reconnaissance and Evaluation (1999), several potential historical resources were located on the Project site, including a home/ranch complex and honey house built in the early 1900s. However, since 1999, a wildfire burned much of the site in 2010, possibly including the potential resources identified in the 1997 assessment. Thus, an updated assessment will be necessary due to the passage of time and changes to the Project site resulting from the wildfire. The results of the updated cultural resources assessment will be included in an EIR.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?	☒	☐	☐	☐

Potentially Significant Impact. While an archaeological resource assessment was completed in 1999 (as referenced in Response No. 5.a), an updated assessment will be necessary due to the passage of time and changes to the Project site resulting from the 2010 wildfire. The findings of the updated archaeological resources assessment will be included in an EIR.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?	☒	☐	☐	☐

Potentially Significant Impact. According to the Paleontological Resources Assessment Report (2001), the Pliocene Pico Formation and the late Miocene to early Pliocene Towsley Formation geologic units present on the Project site have a high potential to contain nonrenewable scientific resources, such as fossils, and should be monitored closely. The surficial Holocene Alluvium present is too young to contain nonrenewable scientific resources and thus does not require close paleontological monitoring.

While a paleontological resource assessment was completed in 2001, an updated assessment will be necessary due to the passage of time and potential for newly discovered fossil and geologic information. The findings of the updated paleontological resources assessment will be included in an EIR.

d) Disturb any human remains, including those interred outside of formal cemeteries? ☒ ☐ ☐ ☐

Potentially Significant Impact. The Project site is situated within the traditional tribal territory of a Native American group known to anthropologists as the Tatavium. The site is bordered by traditional territories of the Chumash to the west, the Gabrielino to the south, the Serrano to the east, and the Kitanemuk to the north. As discussed above in Response No. 5.b., an updated archaeological resources survey and assessment will be completed to determine the potential for Project activities to disturb human remains. The findings of this assessment will be included in an EIR.

References:

- Cultural Resources Reconnaissance and Evaluation of TT 52796 and the Lennar Parcel; Portions of the Aidlin Properties, City of Santa Clarita, Los Angeles County, California, prepared by RMW Paleo Associates Archaeology Paleontology History, dated May 1999.
- Historic Resources Technical Report, The Larinan Apiary, prepared by Tim Gregory, dated May 12, 1999.
- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit CO-6, Cultural and Historical Resources.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 9.7, Scenic Highways Map and Figure 9.9, Historic Resource Sites Policy Map.
- Paleontological Resources Assessment Report for Aidlin West EIR, prepared by RMW Paleo Associates, Inc., dated June 2001.

6. ENERGY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with Los Angeles County Green Building Ordinance (L.A. County Code Title 22, Ch. 22.52, Part 20 and Title 21, § 21.24.440) or Drought Tolerant Landscaping Ordinance (L.A. County Code, Title 21, § 21.24.430 and Title 22, Ch. 22.52, Part 21)?	☐	☐	☒	☐

Less Than Significant Impact. The Project would comply with the County's Green Building Ordinance (Chapter 22.52 – Part 20) of the County Zoning Code by conserving energy, water, natural resources, and promoting a healthier environment. Project landscaping installed would be compliant with the County's Drought Tolerant Landscaping Ordinance (Chapter 22.52 – Part 21) of the County Zoning Code. Further, the Project would be developed in compliance with all state and local regulations related to energy conservation. Therefore, further analysis of this issue in an EIR is not necessary.

b) Involve the inefficient use of energy resources (see Appendix F of the CEQA Guidelines)?	☐	☐	☒	☐

Less Than Significant Impact. As indicated above in Response No. 6.a, the Project would not involve inefficient use of energy resources. The proposed residences would include installation of energy efficient HVAC units, windows, light fixtures, low flow plumbing fixtures, irrigation systems, and drought tolerant landscaping (where feasible). Therefore, the Project would not result in an inefficient use of energy resources. Further analysis of this issue in an EIR is not necessary.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*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 active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐

Less Than Significant Impact. Fault rupture is displacement that occurs along the surface of a fault during an earthquake. The Project site is located in the seismically active region of southern California. According to the Geologic and Soils Engineering Exploration (2000), no known active or potentially active faults existing within, or extends onto the Project site; also refer to Figure 12.1, Seismic and Geotechnical Hazard Zones Policy Map, of the General Plan 2035 (Draft 2014) and Exhibit S-1, Earthquake Faults, of the Santa Clarita Valley Area Plan 2012. The Project site is not located within a designated Alquist-Priolo Earthquake Fault Zone. This is confirmed in the April 2014 Geologic/Geotechnical Evaluation for Environmental Impact Report, Vesting Tentative Tract Map No. 52796, Los Angeles County, California by R.T. Frankian & Associates. The potential for hazards associated with rupture of an earthquake fault within the Project area has been evaluated in the updated geotechnical report by R.T. Frankian & Associates, which reports a flexural-slip fault approximately 1 mile northeast of the Project site. Based on the findings of the updated geotechnical report, the probability of ground rupture of a known active earthquake fault occurring on-site during the design life of the project (i.e., approximately 30 years is assumed) is considered to be less than significant.

ii) Strong seismic ground shaking?	☒	☐	☐	☐

Potentially Significant Impact. Seismicity is the geographic and historical distribution of earthquake, including their frequency, intensity, and distribution. The level of ground shaking at a given location depends on many factors, including the site and type of earthquake, distance from the earthquake, and subsurface geologic conditions. They type of construction also affects how particular structures and improvements perform during ground shaking. A common measure of ground motion is the peak ground acceleration ("PGA"). Is it not a measure of total energy of an earthquake, such as the Richter and moment magnitude scales, but rather of how hard the ground shakes in a given geographic area. PGA is expressed as the percentage of the acceleration due to graving ("G"), which is approximately 980 centimeters per second squared.

As discussed above in Response 7.a., the Project site is located in a seismically active region. There is potential for significant ground shaking at the Project site during a strong seismic event on active regional faults in the southern California area. According to the Geologic and Soils Engineering

Exploration (2000), the largest maximum earthquake site acceleration produced from the nearby fault, Oak Ridge (about 3.5 miles to the west), is a PGA value at the Project site of 0.95g. The April 2014 Geologic/Geotechnical Evaluation for Environmental Impact Report, Vesting Tentative Tract Map No. 52796, Los Angeles County, California by R.T. Frankian & Associates calculates a site-specific ground motion of 0.261g associated with 1994 Northridge earthquake and site-specific ground motion measured at 0.225g for the 1971 San Fernando earthquake. According to the United States Geological Survey, a PGA of 0.95g is considered "violent" perceived shaking with "heavy" potential for damage. If this relatively high ground acceleration was not considered in the design and construction phase, ground shaking at this intensity could result in significant damage to buildings and improvements associated with Project implementation. Thus, the updated R.T. Frankian & Associates geotechnical report recommends mitigation for potential hazards impacts associated strong seismic ground shaking on the site or in adjacent areas. The findings of the updated geotechnical report will be detailed in an EIR.

iii) Seismic-related ground failure, including liquefaction and lateral spreading? ☒ ☐ ☐ ☐

Potentially Significant Impact. Liquefaction is a process that occurs when saturated sediments are subjected to repeated strain reversals during a seismic event. The strain reversals cause increased pore water pressure such that the internal pore pressure approaches the overburden stress and the shear strength approaches zero. Liquefied soils are subject to flow or excessive strain. Liquefaction occurs in soils below the groundwater table. Loose to medium dense sand and silty sand are particularly susceptible to liquefaction. Predominantly fine-grained soils, such as silts and clay, are less susceptible to liquefaction. According to the Geologic and Soils Engineering Exploration (2000), the site does not have the potential for flow failure or lateral spreading and liquefaction induced settlement was identified as a significant geologic hazard. Also, according to Figure 12.1, Seismic and Geotechnical Hazard Zones Policy Map, of the General Plan 2035 (Draft 2014) and Exhibit S-3, Seismic Hazards, of the Santa Clarita Valley Area Plan 2012, the Project site is located within a seismically induced liquefaction zone. The Oat Mountain and Newhall Seismic Hazard Zones Map (February 1998) also indicate that Wickham Canyon and Pico Canyon are potential seismically-induced liquefaction areas. This is the same conclusion in the April 2014 Geologic/Geotechnical Evaluation for Environmental Impact Report, Vesting Tentative Tract Map No. 52796, Los Angeles County, California by R.T. Frankian & Associates. Given the passage of time and an updated site plan, the potential for hazards associated with seismic-related ground failure, including liquefaction and lateral spreading on the revised Project design was evaluated in the updated R.T. Frankian & Associates geotechnical report and recommends mitigation to reduce the potential for significant impacts associated with seismic-related ground failure. These findings in the updated geotechnical report will be described and analyzed in an EIR.

iv) Landslides? ☒ ☐ ☐ ☐

Potentially Significant Impact. According to the Geologic and Soils Engineering Exploration (2000), landslides were not identified as a significant hazard within the Project site. However, according to Figure 12.1, Seismic and Geotechnical Hazard Zones Policy Map, of the General Plan 2035 (Draft 2014), the Project site is located within a seismically induced landslide zone. The Oat Mountain and Newhall Seismic Hazard Zones Map (February 1998) also indicate that hillsides within the Project site are potential seismically-induced landslide areas. The April 2014 Geologic/Geotechnical Evaluation for Environmental Impact Report, Vesting Tentative Tract Map No. 52796, Los Angeles County, California by R.T. Frankian & Associates reports the presence of three landslides within the Project site, one of which is within the Project grading footprint. The potential for hazards associated with landslides associated with the Project's current site plan are evaluated in the updated R.T. Frankian & Associates geotechnical report. Based on the findings of the updated geotechnical report, an EIR will incorporate

mitigation for the potential significant impacts associated with landslides.

b) Result in substantial soil erosion or the loss of topsoil? ☒ ☐ ☐ ☐

Potentially Significant Impact. Grading and site preparation activities associated with the Project would increase the potential for soil erosion in the Project. The Project would require approximately 1,300,000 cubic yards of cut material, with all cut material being used as fill material within the site. The Project would require grading of the natural topography within the portion of the Project site designated for residential development including slopes over 25 percent in order to remediate existing geologic conditions and to create stable building pads and internal roadways. Manufactured slopes would have a maximum grade of 2 horizontal to 1 vertical. Further, the Project is also located within a high fire hazard severity zone and thus requires vegetation clearance. The grading plan for the Project would fully comply with County grading standards. The Project Applicant will be further required to comply with all applicable NPDES and low-impact development building requirements affecting site drainage to the satisfaction of the County Division of Building and Safety. Analysis of impacts associated with soil erosion and the loss of topsoil will be included in an EIR and appropriate mitigation proposed.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ☒ ☐ ☐ ☐

Potentially Significant Impact. Refer to Response 7.a.i-iv. R.T. Frankian & Associates has prepared an updated geotechnical report, which addresses potential geotechnical and seismic-related impacts, including lateral spreading, subsidence, liquefaction, and collapse. The findings of the updated geotechnical report will be detailed in an EIR.

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? ☒ ☐ ☐ ☐

Potentially Significant Impact. Refer to Response 7.a.i-iv. R.T. Frankian & Associates has prepared an updated geotechnical report with expansive soil information and addresses potential geotechnical impacts, including risks associated with expansive soils. The findings of the updated geotechnical report will be detailed in an EIR.

e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater? ☐ ☐ ☐ ☒

No Impact. The project would not involve the use of septic tanks or alternative wastewater disposal systems. As such, no impact would occur in this regard. Further analysis of this issue in an EIR is not necessary.

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, § 22.56.215) or hillside design standards in the County General Plan ☒ ☐ ☐ ☐

Conservation and Open Space Element?

Potentially Significant Impact. The Project site is primarily vacant and consists of undeveloped terrain with moderate to steep variations in topography. Wickham Canyon traverses the Project site south to north and connects with Pico Canyon in the northeast. According to Figure 9.8, Hillside Management Areas and Ridgeline Management Map, of the General Plan 2035 (Draft 2014), the Project site is located within a hillside management area. The Project site is designated Hillside Management within the Santa Clarita Valley Area Plan and is subject to hillside design standards. Analysis of the Project's consistency with the Hillside Management Area Ordinances (Chapter 22.56.215, Part 1) and hillside design standards in the County's General Plan Conservation and Open Space Element will be included in an EIR.

References:

- Geologic and Soils Engineering Exploration Proposed Hillside Residential Subdivision Tentative Tract 52796 26300 Pico Canyon Road, Los Angeles County, California, for Aidlin Properties, prepared by The J. Byer Group, Inc., dated June 5, 2000.
- Geologic/Geotechnical Evaluation for Environmental Impact Report, Vesting Tentative Tract Map No. 52796, Los Angeles County, California prepared by R.T. Frankian & Associates, dated April 3, 2014.
- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit S-1, Earthquake Faults and Exhibit S-3, Seismic Hazards.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 9.8, Hillside Management Areas and Ridgeline Management Map and Figure 12.1, Seismic and Geotechnical Hazard Zones Policy Map.
- Seismic Hazard Zone Report for the Newhall 7.5-Minute Quadrangle, Los Angeles County, California, prepared by Department of Conservation, Division of Mines and Geology, dated February 1, 1998.
- Seismic Hazard Zone Report for the Oat Mountain 7.5-Minute Quadrangle, Los Angeles County, California, prepared by Department of Conservation, Division of Mines and Geology, dated February 1, 1998.
- State of California Earthquake Fault Zones, Newhall Quadrangle Revised Official Map, revised June 1, 1995.
- United States Geological Survey. Accessed from website at: http://en.wikipedia.org/wiki/Peak_ground_acceleration, accessed January 2014.

8. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐

Potentially Significant Impact. Construction and operation of the Project would increase greenhouse gas emissions ("GHGs") which have the potential to result in a significant impact on the environment. Therefore, this issue will be further evaluated in an EIR and include a quantitative assessment of Project-generated GHG emissions resulting from construction equipment, vehicle trips, electricity and natural gas usage, and water conveyance. Relevant project features that reduce GHG emissions, such as green building design, will also be discussed.

b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Potentially Significant Impact. Project features to achieve consistency with applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions will be evaluated in an EIR.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐

Less Than Significant Impact. The type and amount of hazardous materials to be used in association with the Project would be typical of those used in residential developments. Specifically, operation of the residential uses would involve the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance. However, all potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any associated risk would be adequately reduced to a less than significant level through compliance with these standards and regulations. Therefore, impacts would be less than significant. Further analysis of this issue in an EIR is not necessary.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☒	☐	☐	☐

Potentially Significant Impact. As discussed in Response 9.a, operation of the proposed single-family residences is not anticipated to result in significant risks associated with hazardous materials.

Construction of the Project would involve the use of potentially hazardous materials such as vehicle fuels, oils, and transmission fluids. All such potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

According to a Phase 1 Environmental Site Assessment ("ESA") conducted in 1999, there was no observable evidence of contamination at the oil well drill location on-site. Artificial fill with petroleum odor of unknown origin existed at the head of a tributary canyon to Wickham Canyon. A water heater was observed within the creek bed of Wickham Canyon indicated the site may have been used for dumping. Asbestos was suspected of the previous home/ranch complex. The honey house was surrounded by various drums, tanks and other miscellaneous debris presumably associated with honey production and storage. Off-site environmental concerns noted in the 1999 Phase I ESA included debris piles and a building marked with "high voltage" placards.

As a result of the above-mentioned 1999 Phase I ESA, analysis of potential impacts of hazardous materials on-site and off-site will be included in an EIR. The Phase I ESA analyzed a previous site design, which has sense been revised. Further, results of such studies are typically considered valid for one year. An updated Phase I ESA dated March 26, 2014, has been prepared by Advantage Environmental Consultants, LLC for the current Project. The report found petroleum staining and odors located west of Wickham Canyon in apparently disturbed soil, as also reported in the 1999 Phase I ESA. Two plugged oil wells are also reported

in the 2014 Phase I ESA, both of which are located outside of the proposed development area. The results and findings relating to hazardous materials recommends that, prior to grading activities, the project grading contractor should be apprised of the petroleum staining and odors located west of Wickham Canyon to be included in an EIR.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses? ☐ ☐ ☒ ☐

Less Than Significant Impact. Sensitive land uses are generally considered uses such as playgrounds, schools, senior citizen centers, hospitals, day-care facilities, or other uses that are more susceptible to poor air quality, such as residential neighborhoods. The only sensitive use within one-quarter mile of the Project site is the residential community which abuts the Project site on the east. However, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Construction of the Project would involve the use of potentially hazardous materials such as vehicle fuels, oils, and transmission fluids. All such potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Therefore, impacts would be less than significant. Further analysis of this issue in an EIR is not necessary.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ☐ ☐ ☒ ☐

Less Than Significant. The updated 2014 Phase I ESA by Advantage Environmental Consultants, LLC included a current database search of hazardous materials sites compiled pursuant to Government Code section 65962.5. The results of this search did not disclose any environmental constraints to the development of the Project site. Further analysis of potential impacts associated with hazardous materials sites in an EIR is not necessary.

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 for people residing or working in the project area? ☐ ☐ ☐ ☒

No Impact. The Project site is not within an airport land use plan and it is not within two miles of a public use airport. The nearest airports, Van Nuys Airport (16461 Sherman Way, Van Nuys, CA) and Whiteman Airport (12653 Osborne Street, Los Angeles) are located approximately 12 miles south and 13 miles southeast of the Project site, respectively. No safety hazards for people residing or working in the area would occur as a result of the Project and no impacts would occur. Therefore, the Project would not result in an airport-related safety hazard for people residing or working in the Project area, and no impact would occur in this regard. Further analysis of this issue in an EIR is not necessary.

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? ☐ ☐ ☐ ☒

No Impact. There are no private airstrips in the vicinity of the Project site, and the site is not located within a designated airport hazard area. Therefore, the Project would not result in airport-related safety hazards for the people residing or working in the area. No impact would occur in this regard. Further analysis of this issue in an EIR is not necessary.

g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☒ ☐

Less Than Significant Impact. The Project site is primarily vacant and undeveloped. Pico Canyon Road generally traverses the northern boundary of the Project site, with a small portion of the roadway segment occurring in the northeast corner of the site. According to Figure 12.7, Disaster Routes, of the General Plan 2035 (Draft 2014), the nearest disaster route to the Project site is I-5, located approximately 1.6 miles east of the Project site. Implementation of the Project would not result in the closure of I-5 or any streets designated as an evacuation route in an adopted emergency response or evacuation plan. Construction activities and staging areas would be confined to the Project site. The construction activities would not physically impair access to and around the Project site. Furthermore, development of the Project would comply with County's building and applicable fire and safety codes that would require adequate access for fire personnel and equipment in and out of the Project site. Therefore, impacts would be less than significant. Further analysis of this issue in an EIR is not necessary.

h) Expose people or structures to a significant risk of loss, injury or death involving fires, because the project is located:

i) within a Very High Fire Hazard Severity Zones (Zone 4)? ☒ ☐ ☐ ☐

Potentially Significant. In 2010, the Project site and surrounding areas burned during a wildfire. The Project site is located within Fire Zone 4, which is a VHFHSZ; refer to Figure 12.6, Fire Hazard Severity Zones Policy Map, of the General Plan 2035 (Draft 2014) and Exhibit S-6, Very High Fire Hazard Severity Zones, of the Santa Clarita Valley Area Plan 2012. Thus, a fuel modification plan for the perimeter portions of the Project envelope would be prepared. The Project site and surrounding uses continue to be subject to potential wildland fire hazards. Therefore, Project implementation could expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Further analysis of this issue will be included in the EIR.

ii) within a high fire hazard area with inadequate access? ☒ ☐ ☐ ☐

Potentially Significant. Regional access to the Project site is provided via I-5 located approximately 1.6 miles east of the Project site. Local access to the Project site is provided via Pico Canyon Road. A 24-foot wide paved emergency vehicle access road to the east, connecting with Verandah Court, would be maintained to provide emergency access to the private properties southeast of the Project site; refer to Figure 3 for location of the emergency vehicle access road. Nonetheless, as the Project site and surrounding uses continue to be subject to potential wildland fire hazards, an analysis of fire and emergency access will be included in an EIR.

iii) within an area with inadequate water and pressure to meet fire flow standards? ☒ ☐ ☐ ☐

Potentially Significant. As part of the Project's proposed infrastructure improvements, water tanks and an on-site pump station would be provided inclusive of fire protection needs. Water pressure and flows would be reviewed and subject to approval by the County Fire Department to ensure adequate water supplies and pressure are available to meet the Project's fire slow standards. Nonetheless, as the Project site and surrounding uses continue to be subject to potential wildland fire hazards, an analysis of the Project's ability to demonstrate adequate water supply and flows are available to meet fire fighting demands will be included in an EIR.

iv) within proximity to land uses that have the potential for dangerous fire hazard? ☒ ☐ ☐ ☐

Potentially Significant. In 2010, the Project site and surrounding areas burned during a wildfire. The Project site and surrounding areas are located within a VHFHSZ. Residential communities are located immediately to the east of the Project site. Residential uses do not generally present a high potential for dangerous fire hazards. However, the Project site and surrounding uses continue to be subject to potential wildland fire hazards. Therefore, Project implementation could expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Further analysis of this issue will be included in the EIR.

i) Does the proposed use constitute a potentially dangerous fire hazard? ☒ ☐ ☐ ☐

Potentially Significant. The Project applicant proposes to develop 102 single-family dwellings and associated infrastructure including local roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. Residential uses do not generally present a high potential for dangerous fire hazards. Nonetheless, the Project site and surrounding uses have a history of wildland fires and the potential for the Project to constitute a potentially dangerous fire hazard will be further analyzed in an EIR.

References:

- Department of Toxic Substances Control Envirostor Website, http://www.envirostor.dtsc.ca.gov/public/, accessed January 2014.
- Google Earth, Aerial Views, accessed January 2014.
- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit S-6, Very High Fire Hazard Severity Zones.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 12.6, Fire Hazard Severity Zones Policy Map and Figure 12.7, Disaster Routes.
- Phase 1 Environmental Site Assessment, Aidlin Property 26300 Pico Canyon Road, Los Angeles County, California, prepared by AGRA Earth & Environmental, Inc., dated March 2, 1999.
- Phase I Environmental Site Assessment, Tentative Tract Map No. 52796, Los Angeles County, California, prepared by Advantage Environmental Consultants, LLC, dated March 26, 2014.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐

Potentially Significant Impact. Project construction would alter the quantity and composition of surface runoff through grading of site surfaces, construction of impervious streets, building development, introduction of urban pollutants, and irrigation for landscaped areas. A National Pollutant Discharge Elimination System ("NPDES") permit, which includes Best Management Practices ("BMPs"), would be required to reduce pollution levels in stormwater discharge in compliance with applicable water quality standards. A Drainage Study and Water Quality Management Plan ("WQMP") will be prepared for the Project, which will include an analysis of construction and operational impacts on the quantity and quality of site runoff and issues relating to the stormwater system, capacity requirements of drainage improvements, and waste discharge requirements. Based on the findings of the Hydrology Study and WQMP, the EIR will document the potential for significant impacts associated with increases in pollutant discharges to receiving waters (including impaired water bodies pursuant to the Clean Water Act Section 303(d) list), significant alteration of receiving water quality during or following construction, or violation of water quality standards or waste discharge requirements. Further analysis of this issue will be included in the EIR.

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)?	☒	☐	☐	☐

Potentially Significant Impact. The Project would not directly deplete groundwater supplies as no groundwater extractions are proposed. However, the Project would develop residential uses on the Project site, which would result in an increase in impermeable surface area on-site. This reduction in pervious surface area could potentially reduce the amount of water reaching groundwater aquifers beneath the site. Per applicable stormwater regulations, all Project-related stormwater generated on-site (i.e., the incremental increase in stormwater flow volume versus pre-Project conditions) would be required to be contained within the Project boundaries. The March 2014 Hydrology Study prepared by Alliance Land Planning & Engineering, Inc. for the Project includes an analysis of the quantity of site runoff. The Hydrology Study includes discussion on compliance with the Low Impact Development (LID) guidelines. Rooftop stormwater will flow through gutters into on lot drainage systems then to bio-filtration basins where the LID design storm will be captured, filtered, and released into the storm drain system. Based on the findings of the Hydrology Study, the EIR will document the potential for significant impacts associated with groundwater recharge interference.

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 on- or off-site? ☒ ☐ ☐ ☐

Potentially Significant Impact. Currently, the Project site consists of primarily vacant and undeveloped land with only minor drainage improvements. Project construction and operation would alter the current drainage pattern on site and increase the amount of surface water runoff due to the introduction of impermeable surfaces. The Hydrology Study and WQMP prepared for the Project describes existing hydrological conditions including drainage patterns and flows, and analyzes whether on and off site runoff during construction and operation of the Project would result in substantial erosion, siltation or flooding. Based on the findings of the Hydrology Study and WQMP, the EIR will document the potential for impacts associated with increases in the rate or amount of surface runoff which could result in flooding on- or off-site.

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 on- or off-site? ☒ ☐ ☐ ☐

Potentially Significant Impact. Refer to Response 10.c. Further analysis of this issue will be included in the EIR.

e) Add water features or create conditions in which standing water can accumulate that could increase habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use? ☒ ☐ ☐ ☐

Potentially Significant Impact. The Project applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. On-site drainage would be diverted to wetland filtration ponds prior to discharge into Pico Creek. Further evaluation in the EIR is necessary to determine if the Project would add water features or create condition in which standing water could accumulate and increase habitat for mosquitoes and other vectors that transmit diseases such as the West Nile virus and result in increased pesticide use.

f) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? ☒ ☐ ☐ ☐

Potentially Significant Impact. A hydrology study will be prepared to evaluate surface water runoff from the Project site, changes to existing drainage patterns, and the ability of existing drainage facilities within the Project area to adequately drain the Project. Another by-product of introducing urban uses to the Project site is the introduction of additional sources of polluted runoff. Further evaluation in the EIR is necessary to determine if the Project would create or contribute to excessive water runoff and additional sources of pollution.

g) Generate construction or post-construction runoff that would violate applicable stormwater NPDES permits or otherwise significantly affect surface water or groundwater quality? ☒ ☐ ☐ ☐

Potentially Significant Impact. Refer to Response 10.a. Further analysis of this issue will be included in the EIR.

h) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)? ☒ ☐ ☐ ☐

Potentially Significant Impact. The Project would be designed to comply with the County low impact development standards. The low impact development requirements are a part of the Drainage Concept and Water Quality Plan contained in the Hydrology Study to be approved prior to vesting tentative tract map approval. The Project's consistency with the Low Impact Development Ordinance will be included in an EIR.

i) Result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance? ☒ ☐ ☐ ☐

Potentially Significant Impact. As discussed in Responses 4.a-g, a biological resources assessment will be prepared for the project that will identify any areas of Special Biological Significance. The results of the biological resources assessment and the hydrology study to be prepared for the Project will be documented in the EIR. Based on the findings of these studies, a determination will be made in the EIR as to whether the Project could impact any designated Areas of Special Biological Significance.

j) Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)? ☐ ☐ ☐ ☒

No Impact. The Project does not include the use of a septic system as sanitary sewers are used in the Project area. Wastewater generated at the Project site would be collected and conveyed by a sewer system owned and operated by the County's Public Works. The Project would have no impact in regard to the use of septic systems or alternative wastewater disposal. Further analysis of this issue in an EIR is not necessary.

k) Otherwise substantially degrade water quality? ☒ ☐ ☐ ☐

Potentially Significant Impact. As discussed in Response No 10.a, Project implementation could potentially substantially degrade water quality. This issue will be evaluated further in the EIR.

l) 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, or within a floodway or floodplain? ☐ ☐ ☒ ☐

Less Than Significant Impact. According to Figure 12.2, Flood Hazard Zones Policy Map, of the General Plan 2035 (Draft 2014) and Exhibit S-4, Flood Plains, of the Santa Clarita Valley Area Plan 2012, a portion of the Project site within and adjacent to Pico Canyon is located within a 100-year flood hazard area (FEMA 2008). However, the Project would not place housing within a 100-year flood plain. Less than significant impact would occur in this regard. Further analysis of this issue in the EIR is not necessary.

m) Place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain? ☐ ☐ ☒ ☐

Less Than Significant Impact. As stated under Response 10.l, a portion of the Project site within and adjacent to Pico Canyon is located within a FEMA designated 100-year flood plain. However, the Project would place only infrastructures designed for flood management within a 100-year flood plain that could impede or redirect flood flows. Less than significant impact would occur with regard to flood flows. Further analysis of this issue in the EIR is not necessary.

n) 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? ☐ ☐ ☐ ☒

No Impact. As stated under Response 10.l, no proposed single-family dwellings or other habitable structures would be located within a 100-year flood plain. No dams or levees are present on or near the Project site. According to Figure 12.4, Dam and Reservoir Inundation Areas, of the General Plan 2035 (Draft 2014), the Project site is not located within a flood hazard area due to failure of a dam or reservoir. Therefore, flooding resulting from a dam or levee failure would not occur. Further analysis of this issue in the EIR is not necessary.

o) Place structures in areas subject to inundation by seiche, tsunami, or mudflow? ☐ ☐ ☒ ☐

Less Than Significant Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of the sea floor associated with large, shallow earthquakes. Mudflows result from the down slope movement of soil and/or rock under the influence of gravity.

The Project site is located approximately 24 miles northeast of the Pacific Ocean. The site is not adjacent to a large body of water. According to Figure 12.3, Tsunami Hazard Areas, of the General Plan 2035 (Draft 2014), the Project site is not located within a tsunami hazard area. Thus, there is no potential for seiche hazards. A residential community abuts the Project site on the east and the site is not otherwise positioned in an area subject to substantial mudflow hazards. Further, as discussed in Response No. 10.l, no proposed single-family dwellings or other habitable structures would be located within a 100-year flood plain and no flooding hazards associated with a dam or levee failure would occur. Overall, a less than significant impact would occur in these regards. Further analysis of these issues in the EIR is not necessary.

References:

- Google Earth, Aerial Views, accessed January 2014.
- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit S-4, Flood Plains.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 12.2, Flood Hazard Zones Policy Map, Figure 12.3, Tsunami Hazard Areas, and Figure 12.4, Dam and Reservoir Inundation Areas.
- Flood Insurance Rate Map 060370815F. Federal Emergency Management Agency. September 26, 2008.
- Hydrology Report, Stevenson Ranch Residential Tentative Tract No. 52796, County of Los Angeles, prepared by Alliance Land Planning & Engineering, Inc., dated March 28, 2014

11. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

No Impact. The Project site is adjacent to residential uses to the east and undeveloped foothills to the north, south, and west. The proposed residential uses would be consistent and compatible with the adjacent single-family residential uses to the east. No impact would occur in this regard. Further analysis of this issue in an EIR is not necessary.

b) Be inconsistent with the applicable County plans for the subject property including, but not limited to, the General Plan, specific plans, local coastal plans, area plans, and community/neighborhood plans?	☒	☐	☐	☐

Potentially Significant Impact. The County's General Plan designates the Project site as 1 Low Density Residential and R Non-Urban Uses. The Project is being processed with the "grandfathering provision" with the previous Santa Clarita Valley Area Plan (1984) land use designation opposed to the new land use designation adopted in the Santa Clarita Valley Area Plan One Valley One Vision (2012). The Santa Clarita Valley Area Plan designates the Project site as Hillside Management, Urban 2, and Floodway/Floodplain. The County's Zoning Code designates the Project site as A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size). The Project would require discretionary approvals including a vesting tentative tract map to create 102 single-family lots, an oak tree permit for the removal of one oak tree, and a CUP for a density-controlled development to permit the proposed residential uses and for on-site grading in excess of 100,000 cubic yards. Given the discretionary actions requested for the Project, consistency with applicable land use plans, policies and regulations will be considered in the EIR.

c) Be inconsistent with the County zoning ordinance as applicable to the subject property?	☒	☐	☐	☐

Potentially Significant Impact. The County's Zoning Code designates the Project site as A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size). The Project would require a conditional use permit for a density-controlled development ("lot clustering"). The Project's consistency with the zoning will be analyzed in an EIR.

d) Conflict with Hillside Management criteria, Significant Ecological Areas conformance criteria, or other applicable land use criteria?	☒	☐	☐	☐

Potentially Significant Impact. According to Figure 9.8, Hillside Management Areas and Ridgeline Management Map, of the General Plan 2035 (Draft 2014), the Project site is located within a Hillside Management Area. Further, the Project site is designated Hillside Management within the Santa Clarita Valley Area Plan and is subject to hillside design standards. As a result, analysis of the Project's consistency with the Hillside Management Area Ordinances (Chapter 22.56.215, Part 1) and hillside design standards in the County's General Plan Conservation and Open Space Element will be included in an EIR.

References:

- Los Angeles County General Plan 2035 (Draft 2014), Figure 9.3, Significant Ecological Areas and Coastal Resource Areas Policy Map, and Figure 9.8, Hillside Management Areas and Ridgeline Management Map.

12. MINERAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐

Less Than Significant Impact. The Project site is not located within a known mineral resource area and no mineral resources are known from the Project site; refer to Figure 9.6, Natural Resource Areas, of the County General Plan 2035 (Draft 2014) and Exhibit CO-2, Mineral Resources, of the Santa Clarita Valley Area Plan 2012. There has been no mineral extraction (petroleum) on the Project site for nearly 100 years and there are no current plans for new extraction in the area. The updated Phase I (2014) found petroleum staining and odors located west of Wickham Canyon in apparently disturbed soil, as also reported in the 1999 Phase I ESA. The lateral extent of the stained and odorous soil appeared to be 400 square feet in size and surficial in nature. Given the apparent limited extent of the impact soil, this area is not considered to be a significant environmental concern. Such soil can be removed from the Project site during the course of future mass grading activities for the Project. Therefore, impacts would be less than significant. Further analysis of this issue in an EIR is not necessary.

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?	☐	☐	☐	☒

No Impact. The Project site is not located within a Mineral Resource Zone and there are no known designated locally-important mineral resources located on the Project site or in the vicinity of the Project site (refer to Figure 9.6, Natural Resource Areas, of the County General Plan 2035 (Draft 2014) and Exhibit CO-2, Mineral Resources, of the Santa Clarita Valley Area Plan 2012). Therefore, no impact to mineral resources would occur. Further analysis of this issue in an EIR is not necessary.

References:

- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit CO-2, Mineral Resources.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 9.6, Natural Resource Areas.
- Phase I Environmental Site Assessment, Aidlin Property 26300 Pico Canyon Road, Los Angeles County, California, prepared by AGRA Earth & Environmental, Inc., dated March 2, 1999.
- Phase I Environmental Site Assessment, Tentative Tract Map No. 52796, Los Angeles County, California, prepared by Advantage Environmental Consultants, LLC, dated March 26, 2014.

13. NOISE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*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 County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☒	☐	☐	☐

Potentially Significant Impact. Noise sensitive areas typically include residential areas, schools, convalescent hospitals, acute care facilities, and park and recreational areas. Sensitive receptors in the Project vicinity consist of a residential community located immediately to the east of the Project site. The nearest schools, Pico Canyon Elementary School, Rancho Pico Junior High School, and West Ranch High School are located approximately 0.8 miles east, 1.5 miles north, and 1.5 miles north of the Project site, respectively. Pico Canyon Park and Jake Kuredjian Park are located approximately 0.5 miles east and 0.7 miles east of the Project site, respectively. The Project would result in short-term construction and long-term operational noise level increases within the Project area and off-site in the surrounding area. Impacts associated with noise levels during Project construction and operation will be analyzed further in the EIR.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐

Potentially Significant Impact. Construction of the Project may generate groundborne vibration and noise due to site grading, clearing activities, and haul truck travel. As such, the Project would have the potential to expose people to, or generate, excessive groundborne vibration and noise levels during short-term construction activities. Therefore, it is recommended that this issue be analyzed further in an EIR.

Post-construction on-site activities would be limited to residential uses that would not generate excessive groundborne noise or vibration. Less than significant impacts would occur in this regard. Further analysis of operational groundborne vibration or groundborne noise impacts in the EIR is not necessary.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?	☒	☐	☐	☐

Potentially Significant Impact. As discussed above, Project operations may contribute to an increase in ambient noise levels. Therefore, it is recommended that impacts associated with a permanent increase in ambient noise levels be analyzed in an EIR.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from amplified sound systems?	☒	☐	☐	☐

Potentially Significant Impact. As discussed above, construction related activities may result in a temporary increase in ambient noise levels in the site vicinity. Thus, it is recommended that this issue be analyzed further in an EIR.

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?	☐	☐	☐	☒

No Impact. As discussed under Response 9.e., the Project site is not within an airport land use plan and it is not within two miles of a public use airport. The nearest airports, Van Nuys Airport and Whiteman Airport are located approximately 12 miles south and 13 miles southeast of the Project site, respectively. Therefore, construction or operation of the Project would not expose people to excessive airport related noise levels. No impact would occur in this regard. Further analysis of this issue in the EIR is not necessary.

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?	☐	☐	☐	☒

No Impact. As discussed under Response 9.f., the Project site is not located within the vicinity of a private airstrip. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels from such uses. No impact would occur in this regard. Further analysis of this issue in the EIR is not necessary.

References:

- Google Earth, Aerial Views, accessed January 2014.

14. POPULATION AND HOUSING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

Less Than Significant Impact. According to the Santa Clarita Valley Area Plan 2012, population of the Santa Clarita Valley at full build-out of the uses shown on the Land Use Maps of the City's General Plan and the County's Area Plan would be approximately 460,000 to 485,000 residents, comprising of approximately 150,000 to 155,000 households. Construction of the 102 single-family residences on the Project site would generate a population of approximately 306 persons.[1] Therefore, the direct population generated by the Project would be within the maximum population anticipated for the site within the Santa Clarita Valley Area Plan 2012. No more residential uses are currently proposed in the project local area. Tract Map No 061996 to the north of the Project site does not include residential uses along Pico Canyon Road. Property immediately to the west is already publically-owned open space. Additionally, Newhall Ranch Specific Plan to the northwest of the Project site does not include residential or commercial land uses in the Project local area accessible from Pico Canyon Road. There are no current land use entitlement applications to the south of the Project site. Further, the Project applicant proposes to widen the segment of Pico Canyon Road that generally traverses the northern boundary of the Project site. This roadway improvement is consistent with the County's designation of the roadway as a major arterial as well as the approved alignment of the road east of the site. In addition, the widening of Pico Canyon Road does not remove any obstacle to development to the west or north of the Project site since these areas are either public open space or not proposed for development with active entitlement applications. As such, Project implementation would not induce direct or indirect substantial population growth. A less than significant impact would occur in these regards. Further analysis of these issues in the EIR is not necessary.

b) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No Impact. The Project site does not contain housing. Thus, development of the Project would not displace existing housing or people. No impact would occur in these regards. Further analysis of these issues in the EIR is not necessary.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No Impact. Refer to Response 14.b. Further analysis of these issues in the EIR is not necessary.

---

[1] Based on average household size of 3.00 persons/household for the County of Los Angeles. 102 single-family residences X 3.00 = 306. U.S. Census Bureau, American Fact Finder.

d) Cumulatively exceed official regional or local population projections?	☐	☐	☒	☐

Less Than Significant Impact. Refer to Response 14.a. Further analysis of this issue will be included in the EIR.

References:

- U.S. Census Bureau, American Fact Finder, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_S1101&prodType=table, accessed January 2014.

15. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☒	☐	☐	☐

Potentially Significant Impact. Los Angeles County Fire Station 124, located at 25870 Hemingway Avenue, Stevenson Ranch, is located approximately one mile northeast from the Project site; refer to Figure 12.8, Fire Department Battalions and Stations, of the County General Plan 2035 (Draft 2014) and Exhibit S-5, Public Safety Facilities, of the Santa Clarita Valley Area Plan 2012. Construction of the 102 single-family residences on the Project site would generate a population of approximately 306 persons resulting in an increased demand for fire protection services. Therefore, the existing capacity of the County Fire Department to meet these demands will be determined and further analysis of the potential adverse physical impacts to the County Fire Department will be analyzed in the EIR.

Sheriff protection?	☒	☐	☐	☐

Potentially Significant Impact. Santa Clarita Sheriff Station, located at 23740 Magic Mountain Parkway, Valencia, is located approximately 3.5 miles northeast from the Project site, refer to Figure 12.9, Sheriff's Department Service Areas, of the County General Plan 2035 (Draft 2014) and Exhibit S-5, Public Safety Facilities, of the Santa Clarita Valley Area Plan 2012. Construction of the 102 single-family residences on the Project site would generate a population of approximately 306 persons resulting in an increased demand for police protection services. Therefore, the existing capacity of County Sheriff Department to meet these demands will be determined and further analysis of the potential adverse physical impacts to the County Sheriff Department will be analyzed in the EIR.

Schools?	☒	☐	☐	☐

Potentially Significant Impact. The Project site is located within the Newhall School District (grades K through 6) and the William S. Hart Union High School District (grades 7 through 12). Pico Canyon Elementary School, grades K through 6, is located at 25255 Pico Canyon Road, Stevenson Ranch, approximately 0.8 miles east of the Project site. Rancho Pico Junior High School, grades 7-8, is located at 26250 Valencia Boulevard, Stevenson Ranch, approximately 1.5 miles north of the Project site. West Ranch High School, grades 9-12, is located at 26255 Valencia Boulevard, approximately 1.5 miles north of the Project site. Construction of the 102 single-family residences on the Project site would generate a population of approximately 306 persons, including school children, resulting in an increased demand for educational services. Therefore, the existing capacities of the Newhall School District and William S. Hart Union High School District to meet these demands will be determined and further analysis of the potential adverse physical impacts to schools will be analyzed in the EIR.

Parks? ☐ ☐ ☒ ☐

Less Than Significant Impact. Pico Canyon Park, located at 25600 Pico Canyon Road, Stevenson Ranch, is located approximately 0.5 mile east from the Project site. The park is 21-acres in size and is home to a large transplanted oak tree popularly known as the "Million Dollar Oak Tree" and "Old Glory." Jake Kuredjian Park, located at 25265 Pico Canyon Road, Stevenson Ranch, is located approximately 0.7 miles east of the Project site. Construction of the 102 single-family residences on the Project site would generate a population of approximately 306 persons. While the Project's resident population would be expected to utilize existing neighborhood and regional parks in the surrounding area, the introduction of this relatively small population in comparison with the local and regional service populations would not substantially affect park facilities. Nonetheless, the Project would be required to meet the parkland dedication or fee requirements pursuant to the Quimby Act and the Residential Subdivision (Local Park Space Obligation – Formula), Residential Subdivisions (Provision or Local Park Sites) and Park Fees Required When (Computation and Use) (Chapter 21.24 – Part 4 and Chapter 21.28) of the Municipal Code. Payment of these park impact fees would ensure impacts on parks would be less than significant. Further analysis of this issue in an EIR is not necessary.

Libraries? ☒ ☐ ☐ ☐

Potentially Significant Impact. The County of Los Angeles Stevenson Ranch Express Public Library, located at 26233 Faulkner Drive, Stevenson Ranch, is located approximately 0.8 miles north from the Project site, refer to Figure 13.2, Libraries, of the County General Plan 2035 (Draft 2014). Construction of the 102 single-family residences on the Project site would generate a population of approximately 306 persons resulting in an increased demand for library services. Therefore, the existing capacity of County Public Library facilities to meet the increased demand will be determined and further analysis of the potential adverse physical impacts to libraries will be analyzed in the EIR.

Other public facilities? ☐ ☐ ☐ ☒

No Significant Impact. No other public facilities beyond those discussed above are anticipated to have the potential for adverse physical impacts associated with Project implementation. Thus, the analysis of impacts in the EIR to public services will be limited to those described above.

References:

- Department of Parks and Recreation County of Los Angeles Website, http://parks.lacounty.gov/wps/portal/dpr/Parks/Pico_Canyon_Park, accessed January 2014.
- Google Earth, Aerial Views, accessed January 2014.
- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit S-5, Public Safety Facilities.
- Los Angeles County General Plan 2035 (Draft 2014), Figure 12.8, Fire Department Battalions and Stations, Figure 12.9, Sheriff's Department Service Areas, and Figure 13.2, Libraries.

16. RECREATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

Less Than Significant Impact. According to the County General Plan 2035 (Draft 2014), Chapter 10, Parks and Recreation Element, large areas of the County are underserved by parks and recreational facilities. The Element shows that the unincorporated areas of the County face a significant deficit in local parkland of 3,620 acres. Based on population projections, the unincorporated areas of the County would have deficits of 5,986 acres in local parkland and 5,046 acres in regional parkland by the year 2035 if no new parks are created. The Santa Clarita Valley Area Plan contains over 14,000 acres of parkland, including both local and regional parks located within the City and the County. However, much of this parkland consists of natural open space and is not developed for active recreational uses. The County has an adopted standard of four acres of local parkland per 1,000 residents and six acres of regional parkland per 1,000 residents. These requirements may be met by dedication of land, payment of in lieu fees or a combination of both as defined by the County's Park Code. According to the Santa Clarita Valley Area Plan 2012, Chapter 2, Land Use Element, Section XI., Coordination of Land Use Plan with Resources and Other Agencies, based on these standards and without considering improvements or distribution of park property, it appears the planning area has adequate overall parkland acreage to serve the existing population.

As discussed under Response 15.a, the nearest parks, Pico Canyon Park and Jake Kuredjian Park are located approximately 0.5 miles and 0.7 miles east of the Project site, respectively. The Project would increase the amount of housing by 102 units and increase the population by approximately 306 additional residents. It is anticipated that residents of the Project would primarily utilize the nearby recreational facilities. However, the Project would satisfy the parkland dedication or fee requirements pursuant to the Quimby Act and the Residential Subdivision (Local Park Space Obligation – Formula), Residential Subdivisions (Provision or Local Park Sites) and Park Fees Required When (Computation and Use) (Chapter 21.24 – Part 4 and Chapter 21.28) of the Municipal Code. Payment of these park impact fees would ensure impacts on parks are less than significant. Further analysis of this issue in an EIR is not necessary.

b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No Impact. The Project does not propose neighborhood or regional parks. Further analysis of this issue in the EIR is not necessary.

c) Would the project interfere with regional open space connectivity? ☐ ☐ ☒ ☐

Less Than Significant Impact. The Project would not interfere with regional open space connectivity. The Project would essentially serve as an extension of the residential community to the east of the Project site. No regional park areas are located to the south or east of the site. While the Pico Canyon Trail meanders through Pico Canyon in areas generally to the north, both west and east of the Project site, the proposed Project design would not interfered with the trail. Further, no other existing or planned designated public trails would be interfered with by the Project. Therefore, impacts would be less than significant. Further analysis of this issue in an EIR is not necessary.

References:

- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012
- Los Angeles County General Plan 2035 (Draft 2014), Chapter 10, Parks and Recreation Element.
- U.S. Census Bureau, American Fact Finder, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_S1101&prodType=table, accessed January 2014.

17. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*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?	☒	☐	☐	☐

Potentially Significant Impact. The potential for the Project to result in significant impacts associated with a substantial increase in traffic or an exceedance of level of service standards will be analyzed in traffic study to be prepared for the Project. Project-generated traffic volumes will be based on the proposed number of dwelling units. The analysis of traffic impacts will identify key intersections for analysis, quantify existing and future traffic conditions at those locations, identify impacts caused by the addition of Project-generated traffic, and identify mitigation measures to reduce potentially significant impacts generated by the Project, as appropriate and where feasible. The findings of the traffic study will be incorporated into the EIR.

b) Conflict with an applicable congestion management program (CMP), including, but not limited to, level of service standards and travel demand measures, or other standards established by the CMP for designated roads or highways?	☒	☐	☐	☐

Potentially Significant Impact. As discussed in Response No. 17.a, the Project's potential to result in significant impacts associated with a substantial increase in traffic or an exceedance of level of service standards will be analyzed in a traffic study. It is estimated that the proposed Project generate approximately 1,000 new vehicle trips per day. Potential impacts could affect both local and regional transportation systems. Accordingly, analysis of this issue will be undertaken in the EIR based on a traffic study to be prepared for the Project

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

No Impact. The nearest airports, Van Nuys Airport and Whiteman Airport, are located approximately 12 miles south and 13 miles southeast of the Project site, respectively. As such, the Project would not result in a change in air traffic patterns including increases in traffic levels or changes in location that would result in substantial safety risks. No impact would occur in this regard. Further analysis of this issue in the EIR is not necessary.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ☐ ☐ ☒ ☐

Less Than Significant Impact. The Project applicant proposes to widen the segment of Pico Canyon Road that generally traverses the northern boundary of the Project site, consistent with the County's designation of the roadway as a major arterial as well as the approved alignment of the road east of the site. A 24-foot wide paved emergency vehicle access road to the east, connecting with Verandah Court, would be maintained to provide emergency access to the private properties southeast of the Project site. Also, the Project proposes a network of local residential streets to provide access to and vehicular circulation throughout the site.

The area immediately to the east includes single-family residential uses similar to the Project. There are no existing hazardous design features such as sharp curves or dangerous intersections on-site or in the surrounding area. The Project does not include uses that are incompatible to the existing street system. Site access and circulation will be reviewed by the County's Public Works Road Division to ensure that the Project does not substantially increase hazards due to a design feature. Thus, impacts would be less than significant.

e) Result in inadequate emergency access? ☒ ☐ ☐ ☐

Potentially Significant Impact. The Project site would be designed to provide access to fire, ambulatory, and police vehicles from adjacent roadways. Clear and uninterrupted access into the site for emergency response vehicles would be served from Pico Canyon Road. The access drives and internal private drives would be designed to meet the County and Fire Department standards. Therefore, no significant emergency access impacts are anticipated. However, as the Project site and surrounding uses continue to be subject to potential wildland fire hazards, an analysis of fire and emergency access will be included in an EIR.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? ☐ ☐ ☒ ☐

Less Than Significant Impact. The Project consists of a residential development that would not conflict with adopted policies, plans, or programs supporting alternative transportation. The Project does not propose to alter any existing bus turnouts or established alternative transportation programs within the County. The four-mile Pico Canyon Trail meanders through Pico Canyon in areas generally to the north, both west and east of the Project site. Construction and operation of the Project would not impede the use of the trail or reasonable decrease the performance or safety of the trail with the incorporation of mitigation measures to address construction related impacts. Based on the above, a less than significant impact would occur in this regard.

18. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Exceed wastewater treatment requirements of either the Los Angeles or Lahontan Regional Water Quality Control Boards?	☐	☐	☒	☐

Less Than Significant Impact. The Project site is within the jurisdiction of the Sanitation Districts of Los Angeles County and LARWQCB. Wastewater produced in the area is currently transported to, and treated at the Saugus Water Reclamation Plant ("WRP") and the Valencia WRP, which operate by the Sanitation District pursuant to LARWQCB requirements; refer to Exhibit CO-3, Water Resources, of the Santa Clarita Valley Area Plan 2012. The Saugus WRP has an existing treatment capacity of 6.5 million gallons per day ("mgd"). The Valencia WRP has an existing treatment capacity of 21.6 mgd. Both plants are interconnected to form a regional treatment system known as the Santa Clarita Valley Joint Sewerage System ("SCVJSS") with a total existing design capacity of 28.1 mgd. According to the Final 2010 Santa Clarita Valley Urban Water Management Plan ("UWMP"), to accommodate anticipated growth in the Santa Clarita Valley, a 6.0 mgd expansion of the Valencia WRP is planned. With this expansion, the future capacity of the Valencia WRP would be 27.6 mgd. No expansion is planned at the Saugus WRP. The total current planned capacity for both WRPs is 34.1 mgd and current average flow processed is 19.8 mgd. During fiscal year 2011-2012, the Saugus WRP produced 4.96 mgd while the Valencia WRP produced 14.86 mgd for a total of 19.82 mgd of recycled water available for reuse with a remaining existing capacity of 8.28 mgd. The Project would result in an estimated average daily wastewater generation of approximately 26,520 gallons per day ("gpd")[2]. The proposed increase of 26,520 gpd that would result from Project implementation would represent 0.32 percent of the SCVJSS's total existing remaining capacity of 8.28 mgd. Thus, given the amount of wastewater generated by the Project, existing wastewater treatment capacity, and future wastewater treatment capacity set forth by the UWMP, adequate wastewater capacity would be available to serve the Project.

The Project would connect with existing water and sewer lines within Pico Canyon Road that currently serve the single-family residential community directly to east. The Project applicant proposes two 250,000 gallon water storage tanks, one booster station, two pressure regulating stations, and a 12-inch pipeline in Pico Canyon with two points of connection. The Sanitation District has Trunk Sewer lines in Orchard Village Road at Mill Valley Road (Valencia, 24-inch), and in a private right of way southeast of the intersection of Orchard Village Road and Wiley Canyon Road (District No. 32 Main, Section 2, 18-inch), both approximately 3.5 miles to the east. The necessary improvements would be verified through the permit approval process of obtaining a sewer capacity and connection permit from the Sanitation Districts. The Project would install water efficient plumbing fixtures to ensure the provision of wastewater services. Further, implementation of water conservation measures such as those required by Titles 20 and 24 of the California Administrative Code would ultimately reduce wastewater flows as well. Based on the above, impacts related to wastewater treatment requirements of the LARWQCB would be less than significant. This is the conclusion corroborated in the April 2014, Sewer Area Study, Stevenson Ranch, TM No. 52796, Santa Clarita, CA prepared by Alliance Land Planning & Engineering, Inc. Further analysis of wastewater

[2] Per the Sanitation Districts of Los Angeles County, Loading Rates Single family homes = 260 gpd X 102 single family homes = 26,520 gpd.

treatment in an EIR is not necessary.

b) Create water or wastewater system capacity problems, 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? ☐ ☐ ☒ ☐

Less Than Significant Impact. Project implementation would result in increased water demand and wastewater generation beyond existing conditions. However, as discussed above, existing water and wastewater facilities are adequate to accommodate the demand generated by the Project. Thus, the Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. As a result, impacts would be less than significant. Further analysis in an EIR is not necessary.

c) Create drainage system capacity problems, or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ☐ ☐ ☒ ☐

Less Than Significant Impact. Project construction would alter the quantity and composition of surface runoff through grading of site surfaces, construction of impervious streets, building development, introduction of urban pollutants, and irrigation for landscaped areas. A NPDES permit, which includes BMPs, would be required to reduce pollution levels in stormwater discharge in compliance with applicable water quality standards. Further, the Project would implement Low Impact Development ("LID") practices that prevent non-storm water discharges and encourage proper filtration of runoff to reduce runoff to the existing drainage system. The hydrology/drainage analysis will be included in the EIR to demonstrate the Project's compliance with applicable stormwater runoff requirements. Compliance with these requirements would ensure the Project would not create drainage system capacity problems or result in the construction of new storm water drainage facilities which could cause a significant environmental effect. As a result, impacts would be less than significant. Further analysis in an EIR is not necessary.

d) Have sufficient reliable water supplies available to serve the project demands from existing entitlements and resources, considering existing and projected water demands from other land uses? ☐ ☐ ☒ ☐

Less Than Significant Impact. The Castaic Lake Water Agency ("CLWA") is the wholesale water supplier to the Valencia Water Company, the retail water purveyor that provides water to the Project site. Existing water resources include wholesale (imported) supplies, local groundwater, recycled water, and water from existing groundwater banking programs. Planned supplies include new groundwater production as well as additional banking programs. As concluded in the 2010 UWMP, the CLWA and the retail purveyors have adequate supplies to meet CLWA service area demands, which includes the Project, during normal, single-dry, and multiple-dry years throughout the 40-year planning period. The Project proposes to develop 102 single-family dwellings and associated supporting infrastructure including local roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. Implementation of the Project, including landscaped slopes and common areas, would result in an estimated water average daily demand

("ADD") of 91,800 gpd and maximum daily demand ("MDD") of 212,058 gpd[3]. Compliance with water conservation measures such as those required by Titles 20 and 24 of the California Administrative Code would help to reduce the Project's water demand. Construction of the Project would include all necessary on- and off-site water infrastructure improvements and connections to adequately connect to the County's existing water system. As the Project would not generate a water demand greater than that of 500 dwelling units, the Project would not be subject to Senate Bill ("SB") 610 which requires that a water supply assessment be conducted by the water service provider to determine if there is sufficient water supply to serve the Project during normal, single dry, and multiple dry water years. According to the Valencia Water Company, there is adequate water supply for the Project. Further, the Project applicant shall pay the appropriate facility capacity fee required by the CLWA.[4] Therefore, sufficient water supplies would be available to serve the Project from existing entitlements and resources, and new or expanded entitlements would not be necessary. As a result, impacts would be less than significant. Further analysis in an EIR is not necessary.

e) Create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

Less Than Significant Impact. The Project would result in the development of the mostly vacant and undeveloped Project site. As such, utility services are not currently in place on the Project site, but are provided in the surrounding area. The Project would incrementally increase demand on utility services in the Project area and would be minimized by the Project's compliance to the County's green building ordinance which would require energy efficient measures. Therefore, a less than significant impact would occur in this regard. Further analysis in an EIR is not necessary.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

Less Than Significant Impact. The Waste Management Act ("AB 939") requires each California city and county to prepare, adopt, and submit to the California Integrated Waste Management Board ("CIWMB") a source reduction and recycling element ("SRRE") that demonstrates how the jurisdiction will meet AB 939's mandated diversion goals of 50 percent. Disposal of solid waste from the Project would be consistent with the policies and programs contained within the County of Los Angeles SRRE.

The Project site is located within the service area of the Sunshine Canyon Landfill and Chiquita Canyon Landfill; refer to Figure 13.1, Landfills, of the General Plan 2035 (Draft 2014). The Sunshine Canyon Landfill has a maximum permitted throughput of 12,100 tons per day ("tpd") with a remaining capacity of 96,800,000 cubic yards and an estimated closure date of December 31, 2037. The Chiquita Canyon Landfill has a maximum permitted throughput of 6,000 tpd with a remaining capacity of 22,400,000 cubic yards and an estimated closure date of November 24, 2019.

Construction of the Project would result in solid waste that would need to be disposed off in off-site facilities. The types of construction solid waste that would be generated include building materials, asphalt,

[3] Cris Perez, Valencia Water Company, Email Correspondence, dated July 1, 2014,

[4] Cris Perez, Valencia Water Company, Email Correspondence, dated July 1, 2014.

concrete, metal, and landscaping material. All of the construction waste would be removed by a California State licensed contractor and disposed of in accordance with applicable laws and regulations. As previously described above, AB 939 and the County of Los Angeles SRRE requires implementation of programs to recycle and reduce refuse at the source, to achieve a 50 percent reduction in solid waste being taken to landfills. In order to assist in meeting this goal, the Project would incorporate the collection of recyclable materials into the Project design and to require contractors to reuse construction supplies where practicable or applicable to the extent feasible. Therefore, solid waste generated during construction of the Project would result in a less than significant impact. Further analysis in an EIR is not necessary.

In addition, during future Project operation, the Project's residential uses (i.e., food, yard/garden debris, organic materials, and paper) would generate solid waste which would be disposed of at the landfill(s) serving the County. The Project would provide recycling containers and appropriate storage areas for residential and public use to decrease the Project's solid waste disposal need. For the purpose of this analysis, the CIWMB disposal factor of 0.41 ton/capita/year for Los Angeles County is utilized.[5] Thus, based on an estimate of 306 residents associated with the Project, the Project is expected to generate a maximum waste disposal need of 125 tons per year.[6] This number represents an increase of less than one percent of the total remaining capacity at the Sunshine Canyon Landfill and Chiquita Canyon Landfill. Thus, the capacity of these landfills would be able to accommodate the solid waste generated from operation of the Project. Therefore, solid waste generated during operation of the Project would result in a less than significant impact. Further analysis in an EIR is not necessary.

g) Comply with federal, state, and local statutes and regulations related to solid waste? ☐ ☐ ☒ ☐

Less Than Significant Impact. The Project proposes to develop 102 single-family dwellings and associated supporting infrastructure. Solid waste generated by the Project would consist primarily of the standard organic and inorganic waste normally associated with these uses. Substantial hazardous wastes are not anticipated. As noted above, the site is adequately served by County landfills. Additionally, per AB 939, the County has implemented a recycling program to divert at least 50 percent of all solid waste. As such, the Project would be required to comply with the County's SRRE program. The Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste handling, transport, and disposal during both construction and long-term operations. Therefore, a less than significant impact would occur in this regard. Further analysis in an EIR is not necessary.

References:

- CalRecycle Website, Sunshine Canyon Landfill and Chiquita Canyon Sanitary Landfill, http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-2000/Detail/, http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0052/Detail/, accessed January 2014
- Cris Perez, Valencia Water Company, Email Correspondence, dated July 1, 2014.
- Clearwater Program, Wastewater Treatment Plants website, http://www.clearwaterprogram.org/clearwater/wastewaterplants.asp#saugus, accessed January 2014.
- Los Angeles County Department of Regional Planning, Santa Clarita Valley Area Plan, One Valley One Vision, 2012, Exhibit CO-3, Water Resources.

[5] CIWMB, "Residential Waste Disposal Rates," http://www.ciwmb.ca.gov/wastechar/DispRate.htm, accessed March 2014.

[6] CIWMB disposal factor of 0.41 ton/capita/year for Los Angeles County X 306 residents_125 tons per year.

- Los Angeles County General Plan 2035 (Draft 2014), Figure 13.1, Landfills.
- Sanitation Districts of Los Angeles County, Loading Rates by Land Use, 2012.
- Sanitation Districts of Los Angeles County, Twenty-Third Annual Status Report on Recycled Water, Fiscal Year 2011-2012.
- Santa Clarita Valley Urban Water Management Plan, Final, 2010.
- Sewer Area Study, Stevenson Ranch, TM No. 52796, Santa Clarita, CA prepared by Alliance Land Planning & Engineering, Inc., dated April 2014.

19. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐

Potentially Significant Impact. The Project would introduce development into a natural area that provided habitat to a number of plants and animals. Although it is not likely that Project impacts would reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory, each of these topics would be further analyzed in an EIR.

b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐

Less Than Significant Impact. The Project would not disadvantage any long-term environmental goals of Los Angeles County or those identified in the Santa Clarita Valley Area Plan. The Project is designed to achieve long-term environmental goals by installing energy efficient appliances and fixtures, drought tolerant landscaping, and water saving irrigation systems. The Project would comply with state, county, and Green Building standards and regulations that provided to protect both short and long-term environmental goals. Therefore, the Project would not result in a disadvantage to long-term environmental goals.

c) 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)?	☒	☐	☐	☐

Potentially Significant Impact. As discussed above, the Project could potentially result in significant individually limited, but cumulatively considerable impacts regarding aesthetics, air quality, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use/planning, noise, public services, and traffic/transportation. The EIR will assess potential individually limited, but cumulatively considerable impacts associated with these issues.

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Potentially Significant Impact. Due to the potentially significant impacts associated with implementation of the Project, the Project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Thus, a potentially significant impact associated with this issue could occur, and as such further analysis will be provided in the relevant sections of the EIR.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

RECEIVED
SEP 10 2014
BY:

Notice of Preparation

September 11, 2014

To: Reviewing Agencies

Re: Aidlin Hills Project (County Project No. 00-136, VTTM 52796, CUP 00-136, OTP 00-136
SCH# 2014091027

Attached for your review and comment is the Notice of Preparation (NOP) for the Aidlin Hills Project (County Project No. 00-136, VTTM 52796, CUP 00-136, OTP 00-136 draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Tyler Montgomery
Los Angeles County
320 West Temple Street
Los Angeles, CA 90012

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2014091027
Project Title Aidlin Hills Project (County Project No. 00-136, VTTM 52796, CUP 00-136, OTP 00-136
Lead Agency Los Angeles County

Type NOP Notice of Preparation

Description The Project applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including load roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. The proposed residential lots would occupy 20.8 acres. The remaining improved areas of the Project site would include 3.9 acres for water tanks/pump stations, 1.5 acres of water quality basins, a 1.4-acre fire access road, and 9.6 acres of public streets. The project applicant also proposes the preservation of 193.3 acres of undeveloped, natural area within the southern and western portions of the Project site. Project would require about 1,300,000 cubic yards of grading to be balanced on-site. One oak tree would be removed.

Lead Agency Contact

Name Tyler Montgomery
Agency Los Angeles County
Phone 213 974 6433 **Fax**
email
Address 320 West Temple Street
City Los Angeles **State** CA **Zip** 90012

Project Location

County Los Angeles
City
Region
Cross Streets Pico Canyon Road
Lat / Long 34° 22' 42" N / 118° 35' 41" W
Parcel No. 2826020020-024, 2826020030-033
Township 3N **Range** 16W **Section** 6 **Base** SBB&M

Proximity to:

Highways I-5
Airports No
Railways No
Waterways Pico Creek and Wickman Canyon
Schools Pico Cyn ES
Land Use Vacant / 1-Low Density Residential and R-Non-Urban Uses, A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size).

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Noise; Public Services; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Cal Fire; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Office of Emergency Services, California; Native American Heritage Commission; California Highway Patrol; Caltrans, District 7; Air Resources Board; State Water Resources Control Board, Division of Water Quality; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 4; Santa Monica Mountains Conservancy

Date Received 09/11/2014 **Start of Review** 09/11/2014 **End of Review** 10/10/2014

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2014091027

Project Title: Aidlin Hills Project (County Project No. 00-136, VTTM 52796, CUP 00-136, OTP 00-136)

Lead Agency: Los Angeles County | Contact Person: Tyler Montgomery
Mailing Address: 320 West Temple Street | Phone: 213-974-6433
City: Los Angeles, CA | Zip: 90012 | County: Los Angeles

Project Location: County: Los Angeles | City/Nearest Community: Stevenson Ranch
Cross Streets: Pico Canyon Road | Zip Code: 91381
Longitude/Latitude (degrees, minutes and seconds): 34 ° 22 ' 42 " N / 118 ° 35 ' 41 " W Total Acres: 230.5
Assessor's Parcel No.: 2826020020-024, 2826020030-033 & 2826097003 Section: 6 Twp.: 3N Range: 16W Base: San Bern
Within 2 Miles: State Hwy #: Interstate 5 Waterways: Pico Creek and Wickman Canyon
Airports: None Railways: None Schools: Pico Cyn Elementary, S

RECEIVED
SEP 11 2014
STATE CLEARING HOUSE

Document Type:

CEQA: ☑ NOP ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec Other:
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☑ Use Permit ☑ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☑ Other: Oak Tree

Development Type:

☑ Residential: Units 102 Acres 20.8
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☑ Other: Infrastructure (16.4 acres), Open Space (193.3 acres)

Project Issues Discussed in Document:

☑ Aesthetic/Visual ☐ Agricultural Land ☑ Air Quality ☑ Archeological/Historical ☑ Biological Resources ☐ Coastal Zone ☑ Drainage/Absorption ☐ Economic/Jobs
☐ Fiscal ☑ Flood Plain/Flooding ☑ Forest Land/Fire Hazard ☑ Geologic/Seismic ☐ Minerals ☑ Noise ☐ Population/Housing Balance ☑ Public Services/Facilities
☐ Recreation/Parks ☑ Schools/Universities ☐ Septic Systems ☑ Sewer Capacity ☑ Soil Erosion/Compaction/Grading ☐ Solid Waste ☑ Toxic/Hazardous ☑ Traffic/Circulation
☑ Vegetation ☑ Water Quality ☑ Water Supply/Groundwater ☑ Wetland/Riparian ☑ Growth Inducement ☑ Land Use ☑ Cumulative Effects ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Vacant/1-Low Density Residential and R-Non-Urban Uses, A-2-2 (Heavy Agricultural Zone, two-acre minimum lot size).

Project Description: *(please use a separate page if necessary)*

The Project applicant proposes to develop 102 single-family dwellings and associated supporting infrastructure including load roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. The proposed residential lots would occupy 20.8 acres. The remaining improved areas of the Project site would include 3.9 acres for water tanks/pump stations, 1.5 acres of water quality basins, a 1.4-acre fire access road, and 9.6 acres of public streets. The Project applicant also proposes the preservation of 193.3 acres of undeveloped, natural area within the southern and western portions of the Project site. Project would require about 1,300,000 cubic yards of grading to be balanced on-site. One oak tree would be removed.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

____	Air Resources Board	____	Office of Emergency Services
____	Boating & Waterways, Department of	____	Office of Historic Preservation
X	California Highway Patrol	____	Office of Public School Construction
X	Caltrans District #7	X	Parks & Recreation, Department of
____	Caltrans Division of Aeronautics	____	Pesticide Regulation, Department of
____	Caltrans Planning	____	Public Utilities Commission
____	Central Valley Flood Protection Board	X	Regional WQCB #4
____	Coachella Valley Mtns. Conservancy	____	Resources Agency
____	Coastal Commission	____	S.F. Bay Conservation & Development Comm.
____	Colorado River Board	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
X	Conservation, Department of	____	San Joaquin River Conservancy
____	Corrections, Department of	X	Santa Monica Mtns. Conservancy
____	Delta Protection Commission	X	State Lands Commission
____	Education, Department of	____	SWRCB: Clean Water Grants
____	Energy Commission	____	SWRCB: Water Quality
X	Fish & Game Region #5	____	SWRCB: Water Rights
____	Food & Agriculture, Department of	____	Tahoe Regional Planning Agency
X	Forestry and Fire Protection, Department of	X	Toxic Substances Control, Department of
____	General Services, Department of	X	Water Resources, Department of
____	Health Services, Department of		
____	Housing & Community Development	____	Other:
____	Integrated Waste Management Board	____	Other:
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date _____ Ending Date October 29, 2014

Lead Agency (Complete if applicable):

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: Lennar Communities: Denise Williams-Montagna
Address: 980 Montecito Drive, Suite 302
City/State/Zip: Corona, CA, 92879
Phone: 951-817-3542

Signature of Lead Agency Representative: _____ Date: 09-09-14

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

NOP Distribution List

County: Los Angeles

SCH# 2014091027

Resources Agency

- [ ] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  Nicole Wong
- [ ] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Lisa Johansen
- [ ] Dept. of Conservation
  Elizabeth Carpenter
- [ ] California Energy Commission
  Eric Knight
- [ ] Cal Fire
  Dan Foster
- [ ] Central Valley Flood Protection Board
  James Herota
- [ ] Office of Historic Preservation
  Ron Parsons
- [ ] Dept of Parks & Recreation
  Environmental Stewardship Section
- [ ] California Department of Resources, Recycling & Recovery
  Sue O'Leary
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- [ ] Dept. of Water Resources
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] Depart. of Fish & Wildlife
  Scott Flint
  Environmental Services Division
- [ ] Fish & Wildlife Region 1
  Donald Koch
- [ ] Fish & Wildlife Region 1E
  Laurie Harnsberger
- [ ] Fish & Wildlife Region 2
  Jeff Drongesen
- [ ] Fish & Wildlife Region 3
  Charles Armor
- [ ] Fish & Wildlife Region 4
  Julie Vance
- [ ] Fish & Wildlife Region 5
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] Fish & Wildlife Region 6
  Tiffany Ellis
  Habitat Conservation Program
- [ ] Fish & Wildlife Region 6 I/M
  Heidi Sickler
  Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Wildlife M
  George Isaac
  Marine Region

Other Departments

- [ ] Food & Agriculture
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] Depart. of General Services
  Public School Construction
- [ ] Dept. of General Services
  Anna Garbeff
  Environmental Services Section
- [ ] Delta Stewardship Council
  Kevan Samsam

Independent Commissions,Boards

- [ ] Delta Protection Commission
  Michael Machado
- [ ] OES (Office of Emergency Services)
  Dennis Castrillo
- [ ] Native American Heritage Comm.
  Debbie Treadway
- [ ] Public Utilities Commission
  Leo Wong
- [ ] Santa Monica Bay Restoration
  Guangyu Wang
- [ ] State Lands Commission
  Jennifer Deleong
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Business, Trans & Housing

- [ ] Caltrans - Division of Aeronautics
  Philip Crimmins
- [ ] Caltrans - Planning
  Terri Pencovic
- [ ] California Highway Patrol
  Suzann Ikeuchi
  Office of Special Projects
- [ ] Housing & Community Development
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] Caltrans, District 1
  Rex Jackman
- [ ] Caltrans, District 2
  Marcelino Gonzalez
- [ ] Caltrans, District 3
  Eric Federicks – South
  Susan Zanchi - North
- [ ] Caltrans, District 4
  Erik Alm
- [ ] Caltrans, District 5
  David Murray
- [ ] Caltrans, District 6
  Michael Navarro
- [ ] Caltrans, District 7
  Dianna Watson
- [ ] Caltrans, District 8
  Dan Kopulsky
- [ ] Caltrans, District 9
  Gayle Rosander
- [ ] Caltrans, District 10
  Tom Dumas
- [ ] Caltrans, District 11
  Jacob Armstrong
- [ ] Caltrans, District 12
  Maureen El Harake

Cal EPA

Air Resources Board

- [ ] All Other Projects
  Cathi Slaminski
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- [ ] State Water Resources Control Board
  Jeffery Werth
  Division of Drinking Water
- [ ] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] State Water Resouces Control Board
  Phil Crader
  Division of Water Rights
- [ ] Dept. of Toxic Substances Control
  CEQA Tracking Center
- [ ] Department of Pesticide Regulation
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [ ] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] RWQCB 3
  Central Coast Region (3)
- [ ] RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
  - [ ] RWQCB 5F
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] RWQCB 5R
    Central Valley Region (5)
    Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
  - [ ] RWQCB 6V
    Lahontan Region (6)
    Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [ ] RWQCB 8
  Santa Ana Region (8)
- [ ] RWQCB 9
  San Diego Region (9)

- [ ] Other _____

_____

_____

- [ ] Santa Monica Mtns Conservancy

Last Updated 8/27/2014

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

October 29, 2014

Mr. Tyler Montgomery
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012
tmontgomery@planning.lacounty.gov

Subject: Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Aidlin Hills Project in Los Angeles County (SCH# 2014091027)

Dear Mr. Montgomery:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Notice of Preparation (NOP) for the Aidlin Hills Project (Project) Draft Environmental Impact Report (DEIR) prepared by the County of Los Angeles (County) acting as the Lead Agency under the California Environmental Quality Act (CEQA).

The Project is located in the northern foothills of the Santa Susanna Mountains in an unincorporated section of Los Angeles County known as Stevenson Ranch. The Project site includes 230.5 acres of primarily vacant and undeveloped terrain with moderate to steep variations in topography. Several small to large drainage courses traverse through the site. Vegetation within the Project site includes chaparral and coastal sage scrub habitats, riparian habitats, and non-native grassland. Pico Canyon Road generally traverses the northern boundary of the Project site with a small portion of the roadway segment occurring in the northeast corner of the site. Various dirt access roads and trails traverse through the site. A single-family residential community abuts the Project site on the east. The area to the west of the Project site is mostly undeveloped within Pico Canyon, but this area includes the remaining historic buildings of Mentryville (a state historic landmark operated by the Santa Monica Mountains Conservancy). The Pico Canyon Trail, a four-mile trail mostly adjacent to Pico Canyon Road and providing access to Mentryville, meanders through Pico Canyon areas generally to the west and southwest of the Project site.

The Project involves developing 102 single-family dwellings and associated supporting infrastructure including load roadways, water tanks and a pump station, water quality treatment basins, and a fire access road. The proposed residential lots would occupy 20.8 acres. The remaining improved areas of the Project site would include 3.9 acres for water tanks/pump stations, 1.5 acres of water quality basins, a 1.4-acre fire access road, and 9.6 acres of public streets. On-site drainage would be diverted to wetland filtration ponds for cleansing prior to discharge into Pico Creek. The Project applicant proposes to widen the segment of Pico Canyon Road on the northern boundary of the Project site. A 24-foot wide paved emergency vehicle access road to the east, connecting with Verandah Court, would be maintained to provide emergency access to the private properties southeast of the Project site. A fuel modification plan for the perimeter portions of the proposed development envelope will be required. The Project applicant also proposes to preserve 193.3 acres of undeveloped, natural area within the southern and western portions of the Project site. The Project would include an open area between Pico Creek and Upper Wickham Canyon after realignment of Wickham

Canyon. The Canyon would be enhanced by the planting of additional native trees and shrubs. The Project would require about 1.3 million cubic yards of grading to be balanced on-site. One oak tree would be removed.

The Project site supports an unknown acreage of chaparral and coastal sage scrub habitats, California walnut woodland, Cismontane alkali marsh, Mainland cherry forest, Riversidian alluvial fan sage scrub, Southern riparian scrub, Southern coast live oak riparian forest, Southern cottonwood willow riparian forest, Southern mixed riparian forest, Southern sycamore alder riparian woodland, Southern willow scrub, Valley needlegrass grassland, and Valley oak woodland. The Project site supports or has the potential to support fully protected, candidate, sensitive, and/or special status species including golden eagle (*Aquila chrysaetos*), Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), Nevin's barberry (*Berberis nevinii*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), Santa Susana tarplant (*Deinandra minthornii*), and slender-horned spineflower (*Dodecahema leptoceras*).

The Department met with the County on October 2, 2014 for a field review of the proposed Project. The following statements and comments have been prepared from observations during the site visit and pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project, (CEQA Guidelines § 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (CESA; Fish and Game Code § 2050 *et seq.*) and Fish and Game Code section 1600 *et seq*.

Specific Comments

1. Impacts to Streams and Alternatives. The NOP indicates that the Project site includes 6.41 acres of wetlands subject to Fish and Game Code Section 1600 *et seq*. for impacts to streams. Based on the detailed site plan that was provided to the Department during the site visit, the proposed Project would impact several jurisdictional streams. The detailed site plan indicated that the Project would fill the stream and place a culvert for the emergency vehicle access road crossing. In order to minimize impacts to the stream, the Department recommends the installation of a bridge or a culvert that is properly sized to meet bankfull width. The Department also recommends 'A' Street be moved further west to avoid impacts to the stream.

    a) Lake and Streambed Alteration Agreements. As a Responsible Agency under (CEQA Guidelines § 15381) the Department has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream, or use material from a streambed. For any such activities, the project applicant (or "entity") must provide written notification to the Department pursuant to Section 1600 *et seq.* of the Fish and Game Code. Based on this notification and other information, the Department determines whether a Lake and Streambed Alteration Agreement (LSA) with the applicant is required prior to conducting the proposed activities. The Department's issuance of a LSA for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. As a Responsible Agency, the Department may consider the Negative Declaration or Environmental Impact Report of the local jurisdiction (Lead Agency) for the project. To minimize

additional requirements by the Department pursuant to Section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA.[1]

b) The project area supports aquatic, riparian, and wetland habitats; therefore, a preliminary jurisdictional delineation of the streams and their associated riparian habitats should be included in the DEIR. The delineation should be conducted pursuant to the U. S. Fish and Wildlife Service wetland definition adopted by the Department.[2] Some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers.

c) In project areas which may support ephemeral streams, herbaceous vegetation, woody vegetation, and woodlands also serve to protect the integrity of ephemeral channels and help maintain natural sedimentation processes; therefore, the Department recommends effective setbacks be established to maintain appropriately-sized vegetated buffer areas adjoining ephemeral drainages.

d) Project-related changes in drainage patterns, runoff, and sedimentation should be included and evaluated in the environmental document.

2. Department Policy on Wetlands. The Fish and Game Commission sets general policies for Department (Fish and Game Code § 703). As such, the Department has a policy for Wetland Resources and Waters (http://www.fgc.ca.gov/policy/).

a) Wetlands Resources. Wetlands Resources policy defines them, provides a framework for maintaining wetland resources, and establishes mitigation guidance. The Department encourages any project to avoid impacts to wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. The Department encourages activities which would avoid the reduction of wetland acreage, function, or habitat values. Once avoidances and minimization measures have been exhausted, the project must include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions for the benefit to on-site and off-site wildlife populations. Mitigation measures to compensate for unavoidable impacts must be included in the DEIR and must compensate for the loss of function and value of a wildlife corridor.

---

[1] A notification package for a LSA may be obtained by accessing the Department's web site at www.wildlife.ca.gov/habcon/1600.

[2] Cowardin, Lewis M., et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service

3. Conservation of Lands. The NOP states that "the Project applicant also proposes the preservation of approximately 193.3 acres of undeveloped, natural area within the southern and western portions of the Project site." The Department recommends all mitigation lands preserved on site or acquired off site be deeded to a local land conservancy and protected in perpetuity under a conservation easement to prohibit incompatible uses on the site.

4. Impacts to bats. Rock outcroppings and crevices with white wash were observed during the site visit, which indicates potential bat roosting habitat on the Project site. The NOP also acknowledges several bat species, including the Townsend's big-eared bat, have the potential to occur on the Project site.

    a) Bats are considered non-game mammals and are protected by state law from take and/or harassment (Fish and Game Code Section 4150, California Code of Regulations Section 251.1). Several bat species are also considered Species of Special Concern (SOC), which meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines 15065). The Townsend's big-eared bat is also designated as a candidate species for protection under CESA.

    b) To avoid the direct loss of bats that could result from removal of trees and/or structures that may provide maternity roost habitat (e.g., in cavities or under loose bark), the Department recommends bat surveys be conducted by a qualified bat specialist. The Department recommends the DEIR include the use of acoustic recognition technology to maximize detection of bat species to minimize impacts to sensitive bat species. The DEIR should document the presence of any bats and mitigation measures to reduce impacts to below a significant level.

5. Impacts to Coastal California Gnatcatcher. Vegetation within the Project site includes coastal sage scrub (CSS) habitats. CSS habitat, regardless of the quality, supports dispersal, feeding, and refuge for coastal California gnatcatcher (gnatcatcher; *Polioptila californica californica*) during various life stages and during wildfire events. The DEIR should quantify how many acres of CSS occur within the Project impact zone, the proposed preservation area, and adjacent properties. The Department recommends using the Department's recommended protocol[3] to determine presence/absence of gnatcatcher and use of the site and adjacent habitat.

6. Impacts from Fuel Modification. The Project description includes a requirement for a fuel modification plan for the perimeter portions of the proposed development envelope. Page 16 of the NOP states that "at least one isolated oak tree lies within the proposed Project grading limits or fuel modification zone." The Department recommends the DEIR include all fuel modification areas in the biological impact analysis. The Department considers fuel modification activities as adverse impacts to ecosystems. Additionally, thorough biological inventories of all fuel modification areas are recommended to assess impacts to threatened, rare, endangered species, and riparian habitats.

[3] http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/CCalGnatcatcher.1997.protocol.pdf

General Comments

The Department provides the following comments for general issues and concerns regarding Project impacts to biological resources.

1. The NOP states that the Project site has the potential to support CESA-listed plant species including Nevin's barberry, San Fernando Valley spineflower, and the slender-horned spineflower. The Project site also has the potential to support Santa Susana tarplant, a state-designated Rare plant and the Townsend's big-eared bat, a candidate species under CESA, has the potential to occur on the Project site. The Department considers adverse impacts to a species protected by CESA, for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, or candidate species that results from the Project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085.) Consequently, if the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the Department recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from the Department may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b),(c)). Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

2. To enable the Department to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR.

    a) A complete discussion of the purpose and need for, and description of, the proposed Project, including all staging areas and access routes to the construction and staging areas.

    b) A range of feasible alternatives to ensure that alternatives to the proposed Project are fully considered and evaluated; the alternatives should avoid or otherwise minimize impacts to sensitive biological resources particularly wetlands. Specific alternative locations should be evaluated in areas with lower resource sensitivity where appropriate.

<u>Biological Resources within the Project's Area of Potential Effect</u>

3. To provide a complete assessment of the flora and fauna within and adjacent to the Project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats, the DEIR should include the following information:

a) Per CEQA Guidelines, section 15125(c), information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis should be placed on resources that are rare or unique to the region.

b) A thorough, recent floristic-based assessment of special status plants and natural communities, following the Department's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities[4]. The Department recommends focused, repeated surveys be conducted by a qualified botanist during the appropriate floristic period(s) with results disclosed in the DEIR. Surveys should be no more than two years old and surveys periods should be verified with a known reference site. The Department recommends that floristic, alliance- and/or association-based mapping and vegetation impact assessments be conducted at the Project site and neighboring vicinity. The Manual of California Vegetation, second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2008). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

c) A current inventory of the biological resources associated with each habitat type on site and within the area of potential effect. The Department's California Natural Diversity Data Base (CNDDB) in Sacramento should be contacted at www.wildlife.ca.gov/biogeo data/ to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. The CNDDB should be used to generate an initial list of potential species occurrence and not as evidence of non-occurrence. A lack of records in CNDDB does not mean that rare plants or animals do not occur in a Project area. Field verification for the presence or absence of sensitive species, by a qualified biologist, is necessary to provide a complete biological assessment for adequate CEQA review.

d) An inventory of rare, threatened, endangered, and other sensitive species on site and within the area of potential effect. Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, § 15380). This should include sensitive fish, wildlife, reptile, amphibian species, and any species that can be shown to meet the criteria for State listing, which includes SOC and California Native Plant Society (CNPS) Lists 1A, 1B, and 2, which consist of plants that, in a majority of cases, would qualify for listing (CEQA Guidelines Sections 15380(d), 15065(a)). Seasonal variations in use of the Project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.

[4] http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/protocols_for_surveying_and_evaluating_impacts.pdf

Analyses of the Potential Project-Related Impacts on the Biological Resources

4. To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DEIR.

   a) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage should also be included. The latter subject should address: Project-related changes on drainage patterns on and downstream of the Project site; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site. The discussions should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary, and the potential resulting impacts on the habitat, if any, supported by the groundwater. Mitigation measures proposed to alleviate such impacts should be included.

   b) Discussions regarding indirect Project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a NCCP). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR.

   c) The zoning of areas for development Projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.

   d) A cumulative effects analysis should be developed as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future Projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation for the Project-related Biological Impacts

5. The DEIR should include measures to fully avoid and otherwise protect Rare Natural Communities from Project-related impacts. The Department considers these communities as threatened habitats having both regional and local significance.

6. The DEIR should include mitigation measures for adverse Project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

7. For proposed preservation and/or restoration, the DEIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts.

The objective should be to offset the Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

8. If the nesting season cannot be avoided and construction or vegetation removal occurs between March 1st to September 15th (January 1st to July 31st for Raptors), the Permittee will do one of the following to avoid and minimize impacts to nesting birds[5];

   a) Implement a 300-foot minimum avoidance buffers for all passerine birds and 500 foot minimum avoidance buffer for all raptors species. The breeding habitat/nest site shall be fenced and/or flagged in all directions. The nest site area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project.[6]

   b) Develop a project specific Nesting Bird Management Plan. The site-specific nest protection plan shall be submitted to the lead agency for review and CDFW. The Plan should include detailed methodologies and definitions to enable a CDFW qualified avian biologist to monitor and implement nest-specific buffers based upon the life history of the individual species; species sensitivity to noise, vibration, and general disturbance; individual bird behavior; current site conditions (screening vegetation, topography, etcetera), ambient levels of human activity; the various project-related activities necessary to construct the project, and other features. This Nesting Bird Management Plan shall be supported by a Nest Log, which tracks each nest and its outcome. The Nest Log will be submitted to the lead agency and CDFW at the end of each week.

   c) The Permittee may propose an alternative plan for avoidance of nesting birds for the lead agency's review and submittal to CDFW.

9. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful.

10. Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control

---

[5] Qualified avian biologist shall establish the necessary buffers to avoid take of nest as defined in FGC 3503 and 3503.5

[6] NOTE: Buffer area may be increased if any endangered, threatened, or CDFW species of special concern are identified during protocol or pre-construction presence/absence surveys.

exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

The Department appreciates the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Ms. Victoria Chau, Environmental Scientist, at (562) 430-5082 or Victoria.Chau@wildlife.ca.gov.

Sincerely,



Betty Courtney
Environmental Program Manager I
South Coast Region

ec: Ms. Betty Courtney, CDFW, Santa Clarita
Ms. Erinn Wilson, CDFW, Los Alamitos
Mr. Brock Warmuth, CDFW, Ventura
Mr. Scott Harris, CDFW, Pasadena
Ms. Kelly Schmoker, CDFW, Mission Viejo
Mr. Scott Morgan, State Clearinghouse, Sacramento

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

September 25, 2014

Tyler Montgomery
Los Angeles County
320 West Temple Street
Los Angeles, CA 90012

RE: SCH# 2014091027 Aidlin Hlls Project (County Project No. 00136, VTTM 52796, CUP 00-136, OTP 00-136, Los Angeles County.

Dear Mr. Montgomery,

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064.5(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **SFL Check Completed with Negative Results**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) Guidelines §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered cultural items that are not burial associated, which are addressed in Public Resources Code (PRC) §5097.98, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, PRC §5097.98, and CEQA Guidelines §15064.5(e), address the process to be followed in the event of an accidental discovery of any human remains and associated grave goods in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

CC: State Clearinghouse

RECEIVED
SEP 29 2014
BY:

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
(310) 570-6567

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14
(310) 428-5690 Cell

Gabrieleno/Tongva San Gabriel Band of Mission Indian
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell
(626) 286-1262 Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14
(626) 676-1184 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St. Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.
(626) 926-4131

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Conrad Acuna
Contact information unavailable Gabrielino
,
Last attempted verification 9/5/14

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

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH # 2014091027, Aidlin Hills Project (County Project No . 001-36, VTTM 52796, CUP 00-136, OTP 00-136, Los Angeles County.

Native American Contacts
Los Angeles County
September 25, 2014

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908
Los Angeles , CA 90086
samdunlap@earthlink.net
(909) 262-9351

Gabrielino Tongva

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

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH # 2014091027, Aidlin Hills Project (County Project No . 001-36, VTTM 52796, CUP 00-136, OTP 00-136, Los Angeles County.

SANTA MONICA MOUNTAINS CONSERVANCY
RAMIREZ CANYON PARK
5750 RAMIREZ CANYON ROAD
MALIBU, CALIFORNIA 90265
PHONE (310) 589-3200
FAX (310) 589-3207
WWW.SMMC.CA.GOV

October 27, 2014

Tyler Montgomery
Los Angeles County
320 West Temple Street
Los Angeles, California 90012

Notice of Preparation Comments
Aidlin Hills Project PN 00-136
SCH No. 2014091027

Dear Mr. Montgomery:

The Santa Monica Mountains Conservancy (Conservancy) offers the following comments and recommendations on the above-referenced project that abuts the Conservancy's Pico Canyon Park, a component of the Santa Clarita Woodlands.

The proposed project with 1,300,000 cubic yards of grading, 102 houses, large water tanks, and an intrusive, elevated secondary access road would represent a major intrusion into the Santa Susana Mountains core habitat area. Much of that grading a 1,500-foot-long section of development would be starkly visible from Pico Canyon Road. That viewshed would be further marred by a 1,500-foot-long 200-foot-wide fuel modification zone below that long row of ridgeline houses. The majority of that northern boundary fuel modification zone would actually be offsite on adjacent private property in Venturan sage scrub habitat that comes directly to the edge of Pico Creek. This loss of up to 4.5 acres of sage scrub on extremely steeps slope with Pico Creek at their base is a potentially significant biological and hydrological (erosion) impact. The combined development visibility, including lighting, and the fuel modification is a potentially significant visual impact from Pico Canyon Road. The opposite side of Pico Canyon has a long stretch of scenic natural land forms. As proposed, the project would adversely affect an approximately 4,000-foot-long section of viewshed along a scenic roadway.

The property is zoned Zoned A-2-2 Heavy Agricultural Zone with minimum two-acre lot sizes. Why does the Notice of Preparation not disclose that the proposed project would need a zone change? The required 13,000 cubic yards of grading for each house exemplifies that the proposed project is incongruous with the steep terrain and numerous water courses. The Draft Environmental Impact Report (DEIR)must include an alternative project that does not require a zone change.

The DEIR must also include a reduced footprint alternative that does not cut the top off the ridgeline along the northern project boundary. That alternative should include back cutting on the ridgeline and placing fill behind it.

The DEIR must also include an alternative project entirely defined within the proposed project footprint at a density that would not require an emergency access road to be constructed on top of a line of fill placed across Wickham Canyon. Such a ranchette project may have exponentially less infrastructure costs because it might not require complete implementation Pico Canyon Road, such large water tanks, large infiltration basins, channelization of Pico Creek and Wickham Creek, street lighting, curbs and gutters, extensive riparian habitat mitigation, and HOA common areas. It would need less water supply. Newhall Ranch needs to widen Pico Canyon Road so there is no argument that this developer must pay for it to ensure it will be built on the private sector dime.

The DEIR must address the growth inducing effects of the proposed project that would provide road access and utilities to a minimum of four ownerships and seven legal parcels in upper Wickham Canyon. The DEIR must disclose which of those parcels have legal recorded access through the subject property and describe the scope and location of such easements in detail. The DEIR must describe how the project was designed or not designed to accommodate connections to these easements. The DEIR must disclose what legal arrangements have to been made with any and all of these up canyon owners to provide new access and utilities. Disclosure of that information is essential for an adequate DEIR growth inducing analysis. The up canyon habitat is exceptionally rich and it abuts a long interface of public open space that could be adversely affected. It is imperative that the DEIR project description and mitigation measures be written such that no post-approval easements can be granted to these owners that would result in growth potential not addressed in the DEIR.

The project and all of its DEIR alternatives should include a public trail from Pico Canyon Road up Wickham Canyon to the proposed public open space lot. Any DEIR alternative that includes the emergency access road to Verahda Court should include a large culvert for Wickham Creek that accommodates both adequate stream flow and safe equestrian use. Such a tunnel would function for night time wildlife movement too. The absence of a large soft bottom culvert across the middle of Wickham Creek could have a significant adverse biological impact on amphibian and reptile movement with the Wickham Canyon

watershed. Ideally that emergency access road would not have any lighting allowed per a condition and mitigation measure.

It is imperative that the remainder open space lots/areas be fully transferred in fee simple to a public park or open space agency as a prerequisite of tract map recordation.

The DEIR must address how proposed perimeter slope and entry way irrigation will adversely impact south coast horned lizards via sustaining Argentine ant populations.

The DEIR must address in detail what County Flood Control District clean out requirements will be placed on the proposed storm water infiltration basins. Ideally they would be sized and designed to require no clean out and the resulting plant communities could mature and provide both exceptional habitat and a unique natural amenity for the project.

Please contact Paul Edelman, Deputy Director of Natural Resources and Planning, at 310-589-3200, ext. 128 with any questions and future correspondence.

Sincerely,

LINDA PARKS
Chairperson

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

RECEIVED
OCT 01 2014
BY:

September 29, 2014

Tyler Montgomery, Senior Assistant Planner
Department of Regional Planning
Land Division Section
320 West Temple Street
Los Angeles, CA 90012

Dear Mr. Montgomery:

PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT, PROJECT NO. 00-136, CASE NO. VTTM 52796, "AIDLIN HILLS PROJECT," TO CREATE 102 SINGLE-FAMILY RESIDENTIAL LOTS AND ASSOCIATED SUPPORTING INFRASTRUCTURE, 26300 BLOCK OF PICO CANYON ROAD, STEVENSON RANCH, SANTA CLARITA (FFER #201400160)

The Preparation of a Draft Environmental Impact Report 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:

1. We will reserve our comments for the Draft EIR.

LAND DEVELOPMENT UNIT:

1. The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants.

2. The proposed development will necessitate multiple ingress/egress access roads for the circulation of traffic and emergency response issues. All roads shall be designed to the satisfaction of the Department of Public Works and the Fire Department.

3. This property is located within the area described as Very High Fire Hazard Severity Zone (VHFHSZ). All applicable fire code and ordinance requirements for construction, brush clearance and fuel modification plans must be met.

4. Every building constructed shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than 20 feet in width. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.

5. An approved Fire Department turning area shall be provided for all fire apparatus access roads exceeding 150 feet in-length and at the end of all cul-de-sacs.

6. The maximum allowable grade shall not exceed 15% except where topography makes it impractical to keep within such grade. In such cases, an absolute maximum of 20% will be allowed for up to 150 feet in distance. The average maximum allowed grade, including topographical difficulties, shall be no more than 17%. Grade breaks shall not exceed 10% in ten feet. All cross slopes and required Fire Department turnaround areas shall provide a maximum grade of 2%.

7. Access roads shall be maintained with a minimum of 10 feet of brush clearance on each side. Fire access roads shall have an unobstructed vertical clearance clear-to-sky with the exception of protected tree species. Protected tree species overhanging fire access roads shall be maintained to provide a vertical clearance of 13 feet 6 inches.

8. When a bridge, or other approved crossing, is required to be used as part of a fire access road, it shall be constructed and maintained in accordance with nationally recognized standards and designed for a live load sufficient to carry a minimum of 75,000 pounds. All water crossing designs are required to be approved by the Department of Public Works prior to installation.

9. All limited access devices and gates shall comply with the County of Los Angeles Fire Code and the Fire Department Regulation 5.

10. Single family detached homes shall require a minimum fire flow of 1,250 gallons per minute at 20 pounds per square inch residual pressure for a two-hour duration. If the proposed single family detached homes exceed a total square footage of 3,600, the fire flow will be determined by Table B105.1 in Appendix B of the County of Los Angeles Fire Code which may trigger fire flow up to 5,000 gallons per minute.

11. Fire hydrant spacing shall be 600 feet and shall meet the following requirements:

    a) No portion of lot frontage shall be more than 450 feet via vehicular access from a public fire hydrant.

    b) No portion of a structure should be placed on a lot where it exceeds 750 feet via vehicular access from a properly spaced public fire hydrant.

    c) When cul-de-sac depth exceeds 450 feet on a residential street, hydrants shall be required at the corner and mid-block.

12. Fire sprinkler systems shall be installed in all single family detached homes in accordance with the County of Los Angeles Building and Fire Codes along with any applicable department regulation and standard.

13. Specific fire and life safety requirements will be addressed at the building permit phase when architectural plans are submitted to the Fire Department for review and approval. There may be additional requirements during this time.

14. The County of Los Angeles Fire Department, Land Development Unit, appreciates the opportunity to comment on this project. Should any questions arise, please contact Juan Padilla at (323) 890-4243 or at Juan.Padilla@fire.lacounty.gov.

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. Potential impacts in these areas should be addressed in the Final Environmental Document.

HEALTH HAZARDOUS MATERIALS DIVISION:

1. Based on the submitted documents there are potentials for soil contamination with petroleum hydrocarbons, volatile organic compounds and asbestos. Therefore, the site should be assessed/mitigated under oversight of a local or State agency prior to issuance of a grading permit.

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

Very truly yours,

Frank Vidales

FRANK VIDALES, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

FV:jl

WATER RECLAMATION
SOLID WASTE MANAGEMENT

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

October 15, 2014

Ref File No.: 3089848

RECEIVED
OCT 20 2014
BY:

Mr. Tyler Montgomery
County of Los Angeles
Department of Regional Planning
Land Divisions Section
320 West Temple Street, Room 1382
Los Angeles, CA 90012

Dear Mr. Montgomery:

Aidlin Hills Project - Vesting Tentative Tract Map No. 52796

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on September 15, 2014. We offer the following comments regarding sewerage service:

1. The project area is outside the jurisdictional boundaries of the District and will require annexation into the District before sewerage service can be provided to the proposed development. For a copy of the District's Annexation Information and Processing Fee sheets, go to www.lacsd.org, Wastewater & Sewer Systems, Will Serve Program, and click on the appropriate link. For more specific information regarding the annexation procedure and fees, please contact Ms. Donna Kitt at extension 2708.

2. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the Districts, for conveyance to the Districts' Valencia Trunk Sewer, located in Orchard Village Road at Mill Valley Road, or the District No. 32 Main Trunk Sewer Section 3, located in a private right of way southeast of the intersection of Orchard Village Road and Wiley Canyon Road. The 24–inch diameter Valencia Trunk Sewer has a design capacity of 4.8 million gallons per day (mgd) and conveyed a peak flow of 4.3 mgd when last measured in 2014. The 18–inch diameter the District No. 32 Main Trunk Sewer Section 3 has a design capacity of 3.3 mgd and conveyed a peak flow of 0.6 mgd when last measured in 2012.

3. Availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as the project advances. Please submit a copy of the project's build-out schedule to the undersigned to ensure the project is considered when planning future sewerage system relief and replacement projects.

4. The District operates two water reclamation plants (WRPs), the Saugus WRP and the Valencia WRP, which provide wastewater treatment in the Santa Clarita Valley. These facilities have a combined design capacity of 28.1 mgd and currently process an average flow of 19.5 mgd.

5. The expected average wastewater flow from the proposed project, 102 single family residences, is 26,520 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

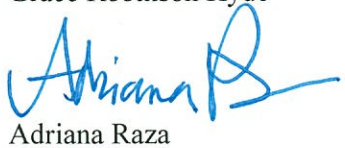
6. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System for increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and search for the appropriate link. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

7. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CCA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Grace Robinson Hyde



Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: D. Kitt
M. Tremblay
J. Ganz

DOC: #3115679.D99SCV

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

September 23, 2014

RECEIVED
SEP 29 2014
BY:

Mr. Tyler Montgomery
County of Los Angeles
Department of Regional Planning, Land Division Section
320 West Temple Street, Room 1382
Los Angeles, CA 90012

Notice of Preparation of a CEQA Document for the
Aidlin Hills Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft CEQA document. Please send the SCAQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the lead agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the lead agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts

when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD's CEQA web pages at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies.
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at Eeckerle@aqmd.gov or call me at (909) 396-3128.

Sincerely,

Edward Eckerle

Ed Eckerle
Program Supervisor
Planning, Rule Development & Area Sources

LAC140916-01
Control Number

City of
SANTA CLARITA

23920 Valencia Boulevard • Suite 300 • Santa Clarita, California 91355-2196
Phone: (661) 259-2489 • FAX: (661) 259-8125
www.santa-clarita.com

October 27, 2014

Mr. Tyler Montgomery
County of Los Angeles
Department of Regional Planning
Land Divisions Section
320 West Temple Street, Room 1382
Los Angeles, CA 90012

Subject: Comments on Notice of Preparation (NOP) of Draft Environmental Impact Report (DEIR) for the Adlin Hills project, Vesting Tentative Tract Map No. 52796

Thank you for the opportunity to review and comment on the above referenced Notice of Preparation.

Project Description:
A proposal to subdivide approximately 230 acres of vacant hillside property into 102 single-family residential lots. The project has been designed in such a way as to retain the majority of the oak trees on site, with only one (non-heritage) removal proposed. The proposed residential lots will be clustered with more than 2/3^{rds} of the site maintained as permanent natural open space.

NOP Comments:
The proposed environmental review topics listed in the NOP is comprehensive and appears adequate. However, the City encourages particular analytic emphasis in the following areas:

- **Aesthetics** - Based on the elevations noted on the proposed subdivision map, it appears that the majority of the project grading will not be visible from the Santa Clarita Valley floor, but some small portions of the project could be visible from the developed areas to the east and the northeast of the project site. Appropriate visual simulations should be prepared in order to evaluate the level of significance of the potential visual impact of the project.

- **Biological Resources** - Construction of Pico Canyon roadway improvements at the already approved alignment will require redirecting the existing creek and routing through a culvert as it passes under the new roadway improvements. The biological analysis should thoroughly discuss the impact of these necessary improvements on the existing habitat, and propose all reasonable and feasible mitigation to minimize impact to biological resources.

- **Recreation** - County trail planning staff has advised the applicant that the Pico Canyon Multipurpose Trail should be clearly identified on the subdivision map, and its correct cross section shown per County trail standards. We concur and recommend that a revised

exhibit be submitted to County staff for inclusion in the DEIR. The Recreation analysis should also examine whether or not a linkage between the Pico Canyon Multipurpose Trail and the public open space to the south of the project site would provide a public benefit, or whether the potential benefits of such a connection might be outweighed by potential biota impacts resulting from such a connection.

- **Land Use** - The County's Hillside Development policies encourages the clustering of development on the flatter portions of the site and away from the steepest portions (50% slope or greater) of the site. The Land Use analysis should discuss the extent to which the proposed subdivision design avoids the steepest portions of the site and concentrates the development cluster in the flattest portions of the site.

Thank you again for the opportunity to comment on the NOP. The City looks forward to reviewing the DEIR when it is available. If you have any additional questions, please contact David Koontz, Associate Planner, at (661) 255-4915.

Sincerely,

Thomas B. Cole
Director of Community Development

TC:DK:cf
S:\CD\current\irp\rp files\Vtt 52796 Adlin NOP comments 10 27 14.doc

cc: Kenneth W. Striplin, City Manager
Jeff Hogan, Planning Manager
David Koontz, Associate Planner

NEWHALL SCHOOL DISTRICT

nsd

RECEIVED
OCT 09 2014
BY:

September 16, 2014

Mr. Tyler Montgomery
County of Los Angeles
Department of Regional Planning
Land Divisions Section
320 West Temple Street, Room 1382
Los Angeles CA 90012

Re: Aidlin Hills Project No. 00-136
Location: APNs 2826-020-020 through 024, 2826-020-030 through 033 and 2826-097-003

This is a response to your Notice of Preparation of a Draft Environmental Impact Report (EIR) for one hundred two (102) single family residential lots. Newhall School District does not have a developer agreement for this project and will not accept a statutory fee agreement as mitigation for this project. In fact, we strongly object to the approval of any new projects in the vicinity of Stevenson Ranch. **The elementary school serving this area is overcrowded and a simple payment of fees will not mitigate the impact of this development nor will it assure adequate school housing for children from these homes. This is exactly the type of small development that the County has approved over the years, resulting in a piecemeal patchwork of small projects that overtax the school capacity of our district and preclude appropriate regional planning of school facilities. We will not be able to accommodate students from this development. The Environmental Impact Report should reflect the severe impact of this project on school facilities.**

Pico Canyon Elementary was built in the southern Stevenson Ranch area ten years ago and filled to capacity within one year. Due to the cap on enrollment, diverted students are assigned to various other schools in our district. While other district schools now have some excess capacity, due to the diligent efforts of the school district to construct new schools, the available sites are not in the vicinity of this development and the Newhall School District does not offer bus services in this situation. Therefore, this project cannot be served by the nearest schools and diversion of students will increase traffic as parents are required to enroll their students at distant sites.

This project will have a considerable negative effect on local elementary schools. Based on school attendance boundaries, students from this development would attend Pico Canyon Elementary School for grades TK-6. Student generation rates used by the district as of February 2014 are .363 for single family dwellings. Existing enrollments for this school as of February 3, 2014 of 961 students and enrollments already exceed designed capacity. Enrollments for 2017-2018 for this site are projected at 821 students. This school site is sized for 850 students and contains three portable classrooms used for the Special Day Class program at the site. There is currently not sufficient room to add more portable classrooms at the site. There are no plans currently for expansion of facilities at this site.

Sincerely,

Ronna Wolcott

Ronna Wolcott
Assistant Superintendent, Business Services

25375 Orchard Village Road, Valencia, California 91355-3000 • (661) 291-4000 • FAX (661) 291-4001

SCOPE
Santa Clarita Organization for Planning and the Environment
TO PROMOTE, PROTECT AND PRESERVE THE ENVIRONMENT, ECOLOGY
AND QUALITY OF LIFE IN THE SANTA CLARITA VALLEY
POST OFFICE BOX 1182, SANTA CLARITA, CA 91386



10-28-14

Tyler Montgomery
LA County Dept. of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

Via email to tmontgomery@planning.lacounty.gov

Re: Notice of Preparation for Adlin Project # 00-136, VTT 52796 and associated approvals

Dear Mr. Montgomery:

Thank you for the opputunity to comment on this project. We request that we be provided a CD of the EIR when it it released.

First we note that, on your list of parties to be notified, the Friends of the Santa Clara River (660 Randy Dr., Newbury Park, 91320) is not listed. We urge you to ensure that they are notified of this project, since they have been involved in projects proposed for the watershed of Pico Creek.

While we generally concur with the findings of the initial study and the discussion areas proposed for the EIR, we believe that the initial study erroneously concluded that there would be no impact to water supply.

We are now in the third year of a drought that has impacted the entire state. The Santa Clarita Valley is currently under drought restriction water rationing that requires all residents to cut back on their water usage by 20%. It is hard to understand how the water agencies, especially Castaic Lake Water Agency, can have accurately projected sufficient water supplies, if we now must cut back while having less than HALF the population anticipated in the general plan update. One can only conclude that the modeling is inaccurate and must be re-evaluated. The water information in the Initial Study does not correctly describe this situation. The EIR should thoroughly address the water supply availability in the Santa Clarita Valley.

Neither has CLWA accurately disclosed the spread of the ammonium perchlorate pollution plume that has caused the closure of two additional water supply wells, V201 and V205. Both these wells previously supplied water to the Valencia Service area identified as the supplier for this project. Therefore a current Water Supply Assessment for this project should be requested and reviewed for accuracy by a County planner familiar with water issues. The issue of drinking water supply pollution by ammonium perchlorate and VOCs must be thoroughly addressed in the EIR. All well closures and the reduction in supply due to the closures should br included in the EIR. Any spread of the pollution plume that is being caused by continued pumping should be discussed.

Further, the Adlin project appears to be outside the service territory of both Castaic Lake Water Agency and Valencia Water Co. Castaic Lake Water Agency illegally acquired Valencia Water Company by means of an eminent domain proceeding in 2012 without receiving permission to expand their service area from the legislature as required by their enabling legislation. This acquisition is now under Court challenge. Certain other statutes were also violated so that ownership and regulatory oversight of Valencia Water Co. is now in doubt. Due to these facts, the California Public Utilities Commission revoked Valencia's Certificate of Public Convenience and Necessity. It is now unclear who has regulatory oversight of this agency and how water service to new customers will be provided. This issue must be addressed before any approvals relying on water service from Valencia Water Co. are granted. (CPUC Decision attached as Exhibit 1))

Other Areas of Concern Listed in the NOP

We believe the NOP accurately reflects the other areas of concern including high fire hazard impacts, biological impacts, development in an SEA, traffic, etc. We especially request that surveys for threatened and endangered species present in the area be conducted along the blue line streams. Avoidance of any impacts to blue line streams is the preferable alternative. We oppose further incursions into fire hazard areas not only because of the danger to future residents, but also due to the cost of defending such residents from the likely increased occurrence of wildfires. We believe the county must provide a cost of services study for such future development and begin to generate fees to ensure that adequate financing of fire services can be provided, if housing is permitted in such areas.

Thanks you for considering our comments.

Sincerely,



Lynne Plambeck
President

Attachment Decision, CPUC, Feb 27th, 2014

Decision 14-02-041 February 27, 2014

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of Valencia Water Company(U342W) a Corporation, for an Order Authorizing it to Increase Rates Charged for Water Service in Order to Realize Increased Annual Revenues of $4,013,000 or 15.97% in a Test Year Beginning January 1, 2014, $858,000 or 2.93% in a Test Year Beginning January 1, 2015, and $1,270,000 or 4.23% in an Escalation Year Beginning January 1, 2016, and to Make Further Changes and Additions to Its Tariff for Water Service and for other Items as Requested in this Application.	Application 13-01-003 (Filed January 2, 2013)
And Related Matters.	Investigation 13-04-003 Application 13-01-004 Case 13-01-005

DECISION DISMISSING CONSOLIDATED PROCEEDINGS AND DECERTIFYING PUBLIC UTILITY

TABLE OF CONTENTS

Title **Page**

DECISION DISMISSING CONSOLIDATED PROCEEDINGS AND DECERTIFYING PUBLIC UTILITY 1
Summary 2
1. Factual Background 3
1.1. An Overview of Valencia Water Company and Castaic Lake Water Agency (Agency) 3
1.1.1. Valencia 3
1.1.2. Agency 3
1.2. The Acquisition 6
1.2.1. Agency's Courtship of Valencia 6
1.2.2. The Deal Structure 7
1.2.3. Agency Approval of the Acquisition 8
1.3. State Court Approval of the Settlement of the Eminent Domain Case 8
1.4. Post-Acquisition State Court Litigation 9
2. Procedural Background 9
2.1. SCOPE'S Complaint 9
2.2. Valencia's Applications 11
2.3. Our Investigation 12
3. Discussion 12
3.1. Commission Jurisdiction Generally 12
3.2. Commission Review of the Condemnation 15
3.2.1. What jurisdiction, if any, does the Commission Have to Determine the Legality of Agency's Condemnation of Valencia's stock? 15
3.3. Commission Jurisdiction Post-Condemnation 19
3.3.1. Agency's Authority to Engage in Retail Sales in Valencia's Service Territory 19
3.3.2. How Can a Governmental Entity Own a Private, For-Profit Company Like Valencia? 20
3.3.3. The Commission's Jurisdiction Extends only to Private, For-Profit Utilities; The Commission Lacks Jurisdiction over Municipal Utilities 26
4. Conclusion 28

5. Categorization and Need for Hearing 28
6. Comments on Proposed Decision 28
7. Assignment of Proceeding 30
Findings of Fact 30
Conclusions of Law 31
ORDER 31

DECISION DISMISSING CONSOLIDATED PROCEEDINGS AND DECERTIFYING PUBLIC UTILITY

Summary

Before the Commission in Application (A.) 03-01-003, et al., are four consolidated proceedings: a general rate case,[1] a cost of capital request,[2] a complaint challenging a transfer of ownership,[3] and our own investigation.[4] This decision dismisses all four proceedings for lack of jurisdiction.

We conclude that applicant and respondent Valencia Water Company (Valencia) is no longer a "private corporation,"[5] by virtue of its acquisition by intervenor and respondent Castaic Lake Water Agency (Agency). Government-owned utilities – i.e., Valencia and Agency – are outside the scope of this Commission's jurisdiction, save for in limited circumstances not applicable here. Government ownership of a utility deprives this Commission of jurisdiction over that utility, whether the ownership takes the form of a stock acquisition, as here, or the more common form of an asset acquisition.

Accordingly, we hereby: (1) dismiss Valencia's applications for changes in its rates and its cost of capital, (2) dismiss complainants Santa Clarita Organization for Planning and the Environment, et al.,'s (collectively, SCOPE's) complaint, (3) close our investigation into Valencia and Agency, and (4) cancel Valencia's certificate of public convenience and necessity. All pending motions in

---

1 A.13-01-003.

2 A.13-01-004.

3 Complaint 13-01-005.

4 Investigation 13-04-003.

5 Cal. Const. Art. XII, § 3.

the consolidated proceedings other than Agency's motion to dismiss SCOPE's complaint are denied; this decision is, in part, a grant of Agency's motion to dismiss.

1. Factual Background

1.1. An Overview of Valencia Water Company and Castaic Lake Water Agency (Agency)

1.1.1. Valencia

Valencia has historically been a Class A water utility subject to the Commission's jurisdiction. Valencia Water Company was established in 1954 to provide retail water service to Newhall Land's Valencia developments. Valencia's service territory covers portions of northern Los Angeles County, including Valencia, Stevenson Ranch, Saugus, Newhall, and Castaic.

In December, 2012, Agency acquired Valencia through a condemnation of all of Valencia's stock.

1.1.2. Agency

Agency is a public water wholesaler, created by a special act of the California Legislature.[6] It obtains water from the State Water Project for sale on a wholesale basis to Valencia and other retail water purveyors in the Santa Clarita Valley.

---

[6] "The Agency was created by the Legislature in the Castaic Lake Water Agency Law. (West's Ann. Wat.Code Appen., § 103-1 et seq., hereinafter, the Agency [Enabling] Act . . . . [T]he Agency is a special district whose purpose, according to section 15 of the Agency Enabling Act, is to "acquire water and water rights . . . and provide, sell, and deliver that water at wholesale only . . . ." .)" *Klajic v. Castaic Lake Water Agency* (2001) 90 Cal. App. 4th 987, 991 (*Klajic I*) (citing Agency Enabling Act, § 103-15, p. 500, italics added). The Agency operates in the Santa Clarita Valley in Los Angeles County. *Klajic v. Castaic Lake Water Agency* (2004) 121 Cal. App. 4th 5, 7 (*Klajic II*).

Agency also sells water to retail customers formerly served by Santa Clarita Water Company, which Agency acquired in 2003 through a stock purchase. The history of that acquisition explains much about how Agency structured its acquisition of Valencia, and also about the controversy now before us.

Agency's acquisition of Santa Clarita Water Company is the subject of two appellate court decisions, *Klajic I* and *Klajic II*. As the Court of Appeal explains in the second of those decisions:

> Beginning in 1999, the Agency commenced efforts to sell water directly to consumers. It did so by relying on [Water Code] Section 12944.7, subdivision (b). That statute allows a wholesale water agency to sell water at retail "only pursuant to written contract with ... a water company ... subject to regulation by the Public Utilities Commission and serving water at retail within the area in which the consumer is located." ([Water Code] § 12944.7, subd. (b).) Accordingly, the Agency entered into a transaction with [Santa Clarita] Water Company. (*Klajic I*, *supra*, 90 Cal.App.4th at pp. 991-992.).[7]

The 1999 transaction between Agency and Santa Clarita Water Company "involved two inextricably connected parts. In the contract portion, the Water Company and Agency executed an agreement to permit the Agency to sell water directly to consumers . . . . In the condemnation proceeding, *the Agency concurrently took by eminent domain all of the outstanding stock of the Water Company in order to give the Agency complete control of the Water Company.*"[8] We emphasize

[7] *Klajic II*, 121 Cal. App. 4th at 8.

[8] *Klajic I*, 90 Cal. App. 4th at 991-92 (emphasis added).

the last portion of the quote, because it describes the identical method that Agency used to acquire Valencia.

Before the transaction to acquire Santa Clarita Water Company closed, the *Klajic* plaintiffs, who were "property owners, residents, and taxpayers located in the area covered by the Agency,"[9] sued to halt the transaction. They argued, among other things, that Water Code § 12944.7(b) authorized Agency to sell at retail only pursuant to a contract with an independent water retailer which is subject to this Commission's regulation. According to the *Klajic* plaintiffs, there was no such contract between Agency and Santa Clarita Water Company. Santa Clarita Water Company was just Agency's alter ego, and so any contract between it and Agency was simply an invalid contract with itself.

The *Klajic I* court agreed with the plaintiffs that Agency's right to sell water at retail was "only pursuant to written contract with" a separate entity that is subject to the Commission's regulation.[10] The *Klajic I* court remanded the case to the trial court to determine whether, as the result of the challenged transaction, the Water Company continued to exist as an entity separate from the Agency, and continued to be subject to regulation by the Commission, so as to satisfy the requirements of Water Code § 12944.7(b).[11]

The story does not end there. As the *Klajic II* court explains:

> While Klajic I was pending, the Agency sought a legislative solution. The Agency sponsored Assembly Bill No. 134 (2001-2002 Reg. Sess.). . . . [S]ection 3 of Assembly Bill No. 134 . . . added Section 15.1 to the Agency Enabling Act. Section 15.1

[9] *Id.*

[10] *Id.* at 997.

[11] *Id.* at 1000-1001.

> reads in pertinent part: "Notwithstanding subdivision (b) of Section 12944.7 of the Water Code [analyzed in Klajic I] and Section 15 of this act [authorizing the Agency to sell water at wholesale only], but subject to paragraph (2), the agency may exercise retail water authority only within the [specified] boundaries..." (Agency Enabling Act, 72A West's Ann. Wat.-Appen. (2004 Supp.) § 103-15.1, subd. (a)(1), p. 4, italics added.) The statute then defines the boundaries by reciting specific metes and bounds. [12]

The metes and bounds[13] described in Assembly Bill (AB) 134 encompassed Santa Clarita Water Company's service territory. Presented with AB 134's changes to Agency's Enabling Act, the Court of Appeal held in *Klajic II* that AB 134 gave Agency authority to sell water at retail, independent of Water Code Section 12944.7(b). Agency was thus free to go forward with its acquisition of Santa Clarita Water Company's stock, and so it did.

Of potential significance now, the geographic area described in AB *did not* encompass *Valencia's* service territory. Thus the stage was set for a potential replay of *Klajic I* if and when Agency acquired Valencia. And so it has come to pass.

1.2. The Acquisition

1.2.1. Agency's Courtship of Valencia

Prior to the acquisition, intervenor Newhall Land & Farming Company (Land & Farming) solely owned Valencia. Land & Farming ultimately entered a

---

[12] *Klajic II*, 121 Cal. App. 4th at 9.

[13] The metes and bounds of a piece of real property are the "territorial limits . . . as measured by distances and angles from designated landmarks and in relation to adjoining properties." BLACK'S LAW DICTIONARY 1012 (8th ed. 2004).

deal with Agency, which resulted in Agency's consensual condemnation of Land & Farming's shares of Valencia.

1.2.2. The Deal Structure

On December 11, 2012, Agency presented Land & Farming with "an Offer to Purchase all issued shares of common stock of [Valencia]."[14] A copy of the contract of sale between Valencia and Agency, executed on December 17, 2012, is attached to SCOPE's complaint as Exhibit D. It is entitled "Eminent Domain Settlement Agreement among the Castiac Lake Water Agency, the Land and Farming Company, and Valencia Water Company" (Settlement Agreement). Though styled as a settlement of litigation, it is in substance a share purchase agreement.[15] In return for $73 million (subject to various adjustments not material here), and upon court issuance of a condemnation order, Land & Farming agreed to convey all of the shares of Valencia to Agency.

In Section 4.1.7 of the Settlement Agreement, entitled "Consents and Approvals," Agency asserted it needed no governmental approvals beyond those obtained to consummate the transaction. Valencia's and Land & Farming's covenants relating to governmental consents, at Sections 5.2 and 5.3 of the Settlement Agreement, respectively, include no such definitive statement. Rather, they commit Valencia and Land & Farming to take "reasonable efforts" to secure "all consents, waivers, and authorizations" needed to "consummate the transactions contemplated by this agreement."

---

[14] Minutes of the Special Meeting of the Board of Directors of the Castaic Lake Water Agency – December 12, 2012, *available at* http://clwa.org/docs/wp-content/uploads/2013/03/Minutes121212.pdf. We take official notice of the minutes pursuant to Rule 13.9.

[15] *See* Article I of the Settlement Agreement, entitled "Share Purchase Agreement."

None of the parties to the Settlement Agreement sought this Commission's approval of the acquisition.

1.2.3. Agency Approval of the Acquisition

On December 12, 2012, by a vote of 9 to 1, Agency's board of directors voted in favor of buying Valencia. It appears that Agency's board members were given only one day's notice of that meeting. The next day, December 13, 2012, Agency filed an eminent domain action in Superior Court. Less than a week later, on December 17, 2012, the Agency's board approved and executed the settlement agreement. The day after that, Agency filed the settlement agreement with the Court. This was also a mere five days after Agency filed its eminent domain documents, and was also the last Wednesday before the Christmas and New Year's holidays.

1.3. State Court Approval of the Settlement of the Eminent Domain Case

The Los Angeles Superior Court issued an order condemning Land & Farming's shares in Valencia on December 18, 2012. That was the same day that Agency filed the Settlement Agreement. When the Court issued its order, Agency had acquired Santa Clarita Valley's last privately held water retailer. According to press reports at the time, the acquisition gave Agency 84 percent of the valley's retail water connections.[16]

Valencia asserted in its January 2, 2013 applications that Agency was pursuing a Superior Court action in eminent domain with the intention of acquiring all the capital stock of Valencia. Valencia further stated that it expected

[16] http://www.signalscv.com/archives/84301/. (Although we take notice of the press accounts we accord them no evidentiary weight on their own.)

this change of ownership and control is likely to be completed no later than early 2013.[17]

In fact, as just noted, the Superior Court in Los Angeles County had *already* entered a judgment approving the condemnation on December 18, 2012 – two weeks prior to Valencia filing its two applications. That the condemnation had already happened is something Valencia should have noted in its applications.[18]

1.4. Post-Acquisition State Court Litigation

Agency's acquisition of Valencia proved controversial. Santa Clarita Organization for Planning and the Environment, et al.,'s (SCOPE) filed an action in Superior Court for a writ overturning the condemnation order.[19] SCOPE's state court litigation is ongoing as of this date.

2. Procedural Background

2.1. SCOPE'S Complaint

SCOPE filed Complaint (C.) 13-01-005 against Agency and Valencia on January 4, 2013. SCOPE contends, among other things, that Agency's acquisition of Valencia required this Commission's approval which, as discussed above, neither Agency nor Valencia ever sought, much less obtained.

On January 18, 2013, the Chief Administrative Law Judge instructed Agency and Valencia to answer SCOPE's complaint by February 17, 2013.

---

[17] Application 13-01-003 at 28.

[18] *See* Commission Rule of Practice and Procedure (Rule) 1.1 (never . . . mislead the Commission or its staff . . .). As we see no benefit accruing to Valencia from this misstatement, we will give Valencia the benefit of the doubt here, and presume that Valencia's use of future rather than past tense to describe the acquisition's status was an oversight rather than a deliberate attempt to mislead us.

[19] *Santa Clarita Organization for Planning the Environment v. Castaic Lake Water Agency et al.*, Los Angeles County Superior Court, Case No. BS141673.

On January 31, 2013, the assigned Administrative Law Judge (Judge) issued a "Ruling Requiring Applicant's to File Pursuant to California Public Utility Code Section 851[20] for Authority to Transfer Control of a Public Utility; and that Valencia Water Company and Castaic Lake Water Agency must timely file and serve a full and complete answer to Case 13-01-005." On February 11, 2013, Valencia moved for reconsideration of the ruling; SCOPE opposed the motion, and the motion is still pending.

On February 19, 2013, Valencia and Agency filed their answers to the Complaint. On February 20, 2013 Valencia and Agency both moved to dismiss the Complaint. SCOPE opposed the motions to dismiss. The motions are still pending.

SCOPE in turn filed on March 14, 2013 a Motion That the California Public Utilities Commission Hold a Hearing as Described in Section 855 and Thereafter that the Public Utilities Commission File an Action in Los Angeles Superior Court Writs & Receivers Department to Obtain the Appointment of a State Court Receiver Under Section 855 Over Valencia Water Company." Valencia and Agency opposed this motion. The motion is still pending.

On June 17, 2013 SCOPE filed a notice of intent to seek intervenor compensation. On August 20, 2013 the assigned Judge issued a ruling which, subject to specific limitations and guidance, found SCOPE to be eligible.

On June 21, and June 26, 2013 SCOPE filed motions to compel the production of documents. On July 31, 2013 the assigned Judge issued a ruling disposing of the motion.

---

[20] All further statutory references will be to the California Public Utilities Code unless otherwise specified.

On July 1, 2013, SCOPE also filed a "Motion for Order that Valencia Water Company discontinue its Advice Letter Submittals and that the Water Division cease its approval of such Advice Letters (until the question of jurisdiction is decided, or, in the alternative, Valencia Water Company, submits to the jurisdiction of the Commission and files an Application to Transfer Ownership in compliance with the Rules and Regulations of the Commission.)" Valencia opposed this motion. On July 18, 2013, the assigned Judge issued by e-mail a ruling denying this motion.

Finally, Newhall County Water District (District) and Newhall Land & Farming Company (Land and Farming) were granted party status.

On September 30, 2013 Valencia filed an amendment to the motion for interim rate relief. ORA filed in opposition, and Valencia was allowed to reply. This motion is pending.

2.2. Valencia's Applications

Turning to Valencia's applications, in accordance with the Rate Case Plan for Class A Water Companies as adopted and modified by the Commission's Decision (D.) 04-06-018 and D.07-05-062, and with Rule 6(a), Article 4, and Article 6 of the Commission's Rules of Practice and Procedure (Rules), Valencia filed its general rate case Application (A.) 13-01-003 for Test Years beginning January 1, 2014 and January 1, 2015, and for an Escalation Year beginning January 1, 2016. Valencia also filed A.13-01-004 to update its cost of capital.

For the Test Year beginning July 1, 2012 and Escalation Years beginning July 1, 2013 and July 1, 2014, Valencia requests increases in rates for general metered water service. Valencia is also requesting that the tariff rate for recycled water which the company requested by a separate application (A.11-06-005) be adjusted to equal 75 percent of the quantity rate the Commission adopts for

general metered service in this proceeding. Finally, Valencia is requesting advice letter treatment for an in-conduit hydro generation project.

2.3. Our Investigation

In Investigation 13-04-003, we directed Valencia to file a Tier I Advice Letter to establish a Transfer of Control Memorandum Account. Valencia filed Advice Letter No. 148 on April 16, 2013. Valencia's rates are subject to refund for any components currently included in rates which would be unjust and unreasonable costs of service by a public utility subject to the jurisdiction of this Commission.

3. Discussion

The welter of pleadings and motions we have received in this case raise a series of questions regarding this agency's jurisdiction. At issue are: (1) our jurisdiction to review a governmental entity's acquisition of a jurisdictional utility, (2) our continued jurisdiction over an erstwhile jurisdictional utility following its acquisition by a governmental entity, and (3) our jurisdiction over the new, governmental, owner of an erstwhile jurisdictional utility.

Accordingly, in a ruling dated July 1, 2013, the assigned Judge asked for briefing on a series of jurisdictional questions.[21] The parties' responses to those questions shape our discussion below.

3.1. Commission Jurisdiction Generally

The Public Utilities Commission is "not an ordinary administrative agency," but a body with broad legislative and judicial powers to regulate and

[21] Agency, Valencia, SCOPE, District, and the Division (now "Office") of Ratepayer Advocates (ORA) all filed opening briefs in response to this ruling. These same entities, plus Land & Farming filed reply briefs. SCOPE filed a reply and sur-reply brief.

supervise the operations of the State's utilities.[22] Those powers are rooted in the State Constitution: Article XII specifically authorizes the Commission to fix rates, establish rules, hold various types of hearings, award reparation, and establish its own procedures for "private corporations and persons."[23] The state legislature, pursuant to its plenary authority to do so, has further expanded the scope of the Commission's authority and jurisdiction.[24] The legislature has vested the Commission with, among other things, authority to "supervise and regulate every public utility in the State."[25]

The legislature also enacted Section 1759, which provides:

> No court of this state, except the Supreme Court and the court of appeal, to the extent specified in this article, shall have jurisdiction to review, reverse, correct, or annul any order or decision of the commission or to suspend or delay the execution or operation thereof, or to enjoin, restrain, or interfere with the commission in the performance of its official duties, as provided by law and the rules of court.

The legislature thus conferred exclusive jurisdiction on the Commission over matters within its regulatory sphere. This exclusivity is applied broadly: Section 1759 has been interpreted to bar actions not only when an award would directly contravene a specific order or decision of the Commission, "but also

---

[22] *Wise v. Pacific Gas & Electric* (1999) 77 Cal. App. 4th 287, 300.

[23] *See* Cal. Const., Art. XII, §§ 2, 4, 6.

[24] *See* Cal. Const., art. XII, § 5 (authorizing the legislature "to confer additional authority and jurisdiction upon the commission" and "to establish the manner and scope of review of commission action in a court of record").

[25] Section 701.

when an award of damages would simply have the effect of undermining a general supervisory or regulatory policy of the commission."[26]

It is a longstanding rule that this Commission has the power to determine for the purpose of the exercise of its jurisdiction all questions of fact essential to the proper exercise of that jurisdiction. Its jurisdiction cannot be affected by the circumstance that these facts are denied.[27] We are vested with power to determine facts upon the existence of which we are authorized to exercise jurisdiction.[28]

The Commission's jurisdiction is, however, limited to "private corporations and persons,"[29] except in limited circumstances that the legislature may establish.[30] In general, the Commission has "no tenable ground upon which to base the conclusion that the rates charged by a municipality for its service in carrying on any public utility, either within its own limits or in outside territory, are under the control of the . . . commission."[31] Put more starkly, the Commission is not "empowered to regulate and supervise municipally owned public utilities."[32] "In the absence of legislation otherwise providing, the Commission's

---

[26] *San Diego Gas & Electric Co. v. Sup. Ct.* (1996) 13 Cal. 4th 893, 918.

[27] *Limoneira Co. et al. v. Railroad Commission* (1917) 174 Cal. 232, 242-43.

[28] *Producers Transp. Co. v. Railroad Commission* (1917) 176 Cal. 499, 506.

[29] *See* Cal. Const. art. XII, § 3.

[30] *Id. See, e.g.,* Section 29047 (subjecting the San Francisco Bay Area Rapid Transit District to Commission safety regulation).

[31] *City of Pasadena v. Railroad Commission* (1920) 183 Cal. 526, 535 (*City of Pasadena)*, *overruled in part by County of Inyo v. Pub. Util. Com.* (1980) 26 Cal. 3d 154, 164 (*County of Inyo)*.

[32] *Los Angeles Gas & Elec. Corp. v. Dep. Of Public Service* (1927) 52 Cal. App. 27, 29.

jurisdiction to regulate public utilities extends only to the regulation of privately owned utilities."[33] The Supreme Court reiterated this principle in *Orange County Air Pollution Control Dist. v. Public Util. Com.*: "The commission has no jurisdiction over municipally owned utilities unless expressly provided by statute."[34]

Against the backdrop of these general rules, we turn now to the particular issues before us.

3.2. Commission Review of the Condemnation

3.2.1. What jurisdiction, if any, does the Commission have to determine the legality of Agency's condemnation of Valencia's stock?

We conclude that the Commission has no authority to review the condemnation, or to require filings from Agency or Valencia under Section 851 et seq. in connection with the condemnation. Both conclusions rest on *California Public Utilities Comm'n v. City of Fresno*.[35]

Section 851 concerns Commission review of, among other things, a jurisdictional utility's disposition of assets. It provides in pertinent part as follows:

> A public utility, other than a common carrier by railroad subject to Part A of the Interstate Commerce Act (49 U.S.C. Sec. 10101 et seq.), shall not sell, lease, assign, mortgage, or otherwise dispose of, or encumber the whole or

---

[33] *Los Angeles Met. Transit Authority v. Public Utilities Com*. (1959) 52 Cal. 2d 655, 661.

[34] *Orange County Air Pollution Control Dist. v. Public Util. Com.* (1971) 4 Cal. 3d 945, 953 at n. 7.

[35] *California Public Utilities Comm'n v. City of Fresno* (1967) 254 Cal. App. 2d 76 (*Fresno*).

> any part of its . . . plant, system, or other property necessary or useful in the performance of its duties to the public . . . or by any means whatsoever, directly or indirectly, merge or consolidate its . . . plant, system, or other property, or franchises or permits or any part thereof, with any other public utility, without first having either secured an order from the commission authorizing it to do so.

Section 854 concerns Commission review of a change in ownership of a jurisdictional utility. It provides in pertinent part as follows:

> No person or corporation, whether or not organized under the laws of this state, shall merge, acquire, or control either directly or indirectly any public utility organized and doing business in this state without first securing authorization to do so from the commission. . . . No public utility organized and doing business under the laws of this state, and no subsidiary or affiliate of, or corporation holding a controlling interest in a public utility, shall aid or abet any violation of this Section.

Fresno is the leading case on Commission review of condemnations. In *Fresno,* the Commission sued to set aside the City of Fresno's condemnation of assets of the Bowen Land Company, Inc., a water corporation and so a public utility subject to this Commission's jurisdiction. In July 1965, the company agreed to sell its entire water system and related facilities to the City of Fresno. The City of Fresno and the Bowen Land Company filed with the Commission pursuant to Section 851, seeking Commission approval of the sale.

In September 1965, the Commission stated that the proposed agreement of sale between the jurisdictional water company and the City of Fresno did not protect the water company's consumers. Nonetheless, we approved the sale (to take effect one year thereafter) subject to certain conditions.

Instead of accepting the conditions imposed by the Commission, the City of Fresno filed suit in superior court to condemn the Bowen Land Company's

system. The trial court entered judgment on the pleadings in favor of the City of Fresno.

The Commission appealed, seeking to have this judgment set aside. We argued on appeal that the superior court could not enter a final unconditional judgment transferring title to assets of a jurisdictional utility until and unless we granted approval under Section 851.

The Court of Appeal disagreed with us. It framed the issue before it as follows: does Section 851 regulate a municipality's otherwise unrestricted power to condemn public utility property under Civ. Proc. § 1241? The court concluded that Civ. Proc. § 1241 trumped Section 851 for three basic reasons:

> (1) [Section 851] contains no express language which purports to control or affect a public entity which is exercising its own separate, distinct, and independent power to acquire property for a public use through the exercise of the power of eminent domain..[36]
>
> (2) [Section 851] deals with the disposition of public utility property in general . . . . On the other hand, Code of Civil Procedure Section 1241 is specific; it unequivocally empowers a city to condemn public utility property even though it has already been appropriated to a public use . . . It is the rule that a specific provision of a statute controls a general provision.[37]
>
> (3) [When] all of the legislative enactments on the subject were carefully considered and reconciled, the conclusion is inescapable that the Legislature did not and could not have intended to include a public entity's power of eminent

[36] *Id.* at 82.

[37] *Id.* at 84 (internal citation omitted).

> domain within the mandatory requirement of [Section 851]."[38]

The court also noted that "under . . . Sections 1401-1421, the Commission is authorized to determine the just compensation payable by a public entity for public utility owned property which it seeks to acquire through eminent domain if it is invited to do so by the condemnor." The court of appeal found that these Sections of the Code demonstrate that the Legislature intended to involve the Commission in a condemnation proceeding only at the condemnor's request, and then only on the limited question of "just compensation." [39]

Sections 851 and 854 have a common purpose, and relate to the same subject matter: regulation of the transfer of utility property. Section 851 addresses disposition of utility assets, while Section 854 addresses changes in utility ownership or control. The reasoning of the *Fresno* court regarding Section 851 applies with equal force to Section 854. Section 854, like Section 851, says nothing about condemnation actions. Section 854 is, like Section 851, a statute that concerns a general set of transactions, and not condemnation specifically, and the "legislative enactments" that the *Fresno* court references in its decision are the same for both Sections 851 and 854.[40]

Accordingly, we conclude that we lack jurisdiction to require Valencia or Agency to file with us under Section 851 et seq. for review of Agency's acquisition of Valencia.

---

[38] *Id.* (internal citation omitted).

[39] *Id.* at 85 (internal citation omitted).

[40] *See County of Inyo v. Los Angeles Dept. of Water & Power,* D.89576, 84 CPUC 515, 526, 1978 Cal. PUC. Lexis 1379 *30.

This conclusion holds true even if Agency's condemnation is outside of its legal authority (i.e., *ultra vires*), and even though some or all of Valencia's service territory is outside the metes and bounds set out in AB 134. The *Fresno* court held that "the jurisdiction of the superior court, though limited to an action in eminent domain, is also *exclusive*."[41] Therefore we are bound by the superior court's judgment in Los Angeles Superior Court Case BC 497322 (December 18, 2012 Final Order of Condemnation) as to the legality of the condemnation.

3.3. Commission Jurisdiction Post-Condemnation

3.3.1. Agency's Authority to Engage in Retail Sales in Valencia's Service Territory

One of the odder aspects of this proceeding is that Valencia is asserting that we have continuing jurisdiction over it. It is unusual for an entity to actively assert that we have jurisdiction over it. More typical by far is for an entity to dispute our assertion of jurisdiction.[42] We do not purport to know Valencia's motives. But an understanding of the *Klajic* cases, and in particular the changes to the Agency Enabling Act that *Klajic I* spawned, may help provide some context for the current issue.

The legislation amending the Agency Enabling Act, which was promulgated during the pendency of the *Klajic* cases, authorized Agency to make retail sales within a specified geographic area. But, as discussed earlier,

---

[41] *Id.* at 88 (emphasis added).

[42] Typically, putative utilities contest our exercise of jurisdiction. *See, e.g. Greyhound Lines, Inc. v. Public Utilities Com.* (1968) 68 Cal. 2d 406; *Richfield Oil Corp. v. Pub. Util. Comm.* (1960) 54 Cal. 2d 419, cert. den. sub nom. *Southern Counties Gas Co. of California v. Pub. Util. Comm.*, 364 U.S. 900; *People v. Western Air Lines, Inc.* (1954) 42 Cal. 2d 621. That said, assertions of jurisdiction are not altogether unheard of. *See*, *e.g.*, *Covalt*, *supra*.

Valencia's service territory is today outside the retail service area of Agency set out in AB 134.

The practical implication of this is that Agency may not be able to rely on its authority under the Agency Enabling Act to engage in retail sales, at least to Valencia customers outside the geographic area described in AB134. Thus, to serve those customers, Agency would appear to need to exercise its independent authority under Water Code § 12944.7.

The *Klajic I* court stated in dicta that, notwithstanding Water Code § 12944.7's limitation on Agency's acquisition of retail water sellers, Agency could acquire a retail water seller if the retail water seller became: "a wholly-owned subsidiary of, or wholly separate from, the Agency." The appellate court went on to say: "but whatever form [the acquired retail seller] takes, it must be distinct from the Agency and remain subject to PUC regulation to comply with the statute."

This may be why Valencia is arguing that it is subject to our jurisdiction. It appears that, to sell water pursuant to Cal. Water Code § 12944.7, Agency may need Valencia to remain subject to this Commission's jurisdiction.

3.3.2. How Can a Governmental Entity Own a Private, For-Profit Company Like Valencia?

We asked of the parties how Agency can buy and hold stock in a nominally private for-profit entity.[43] DRA cited us to, and *Klajic I* Agency relied on, Art. XVI, § 17 of the California Constitution. That Section provides in pertinent part as follows:

[43] The question we posed was: "What authority authorizes Agency, a public entity, to (1) become and (2) remain the 'parent' of a wholly-owned private subsidiary?"

> The State shall not in any manner loan its credit, nor shall it subscribe to, or be interested in the stock of any company, association, or corporation, except that the State and each political subdivision, district, municipality, and public agency thereof is hereby authorized to acquire and hold shares of the capital stock of any mutual water company or corporation when the stock is so acquired or held for the purpose of furnishing a supply of water for public, municipal or governmental purposes; and the holding of the stock shall entitle the holder thereof to all of the rights, powers and privileges, and shall subject the holder to the obligations and liabilities conferred or imposed by law upon other holders of stock in the mutual water company or corporation in which the stock is so held.[44]

Having been presented with the authority purportedly underlying Agency's acquisition, we searched for prior Commission decisions in circumstances in which a governmental entity acquired a Commission-jurisdictional entity. Remarkably, the Commission seems never to have encountered this fact pattern before.[45] Deeper exploration of Art. XVI, § 17's history offers some explanation of why not.

The language of Art. XVI, § 17 first appeared in nascent form in the 1849 constitution, Art. XI § 10, where it read: "The credit of the State shall not, in any manner, be given or loaned to or in aid of any individual, association, or corporation, nor shall the State directly or indirectly become a stockholder in any association or corporation." It has since been amended numerous times.

---

[44] Cal. Const. Art. XVI, § 17.

[45] In addition to a complete absence of Commission decisions dealing with Cal. Const. Art. XVI, § 17, we located only one court decisions citing to the water provisions of Cal. Const. Art. XVI, § 17 – *Klajic I.* The *Klajic I* court merely noted Agency's assertion of authority under Cal. Const. Art. XVI, § 17, without discussion. The *Klajic* court did not rule that section 17 *did* apply.

The Constitution of 1879 contained an essentially identical provision at Art. XII, (then Corporations, now Public Utilities) § 13: "The State shall not in any manner loan its credit, nor shall it subscribe to or be interested in the stock of any company, association, or corporation." In the early 1930s and '40s, some exceptions to the 1879 provision were added to Art. IV (Legislative), allowing specific political subdivisions to hold stock of mutual water companies. For example, Art. IV § 31(b), added Nov. 8, 1932, read: "Nothing contained in this Constitution shall preclude the City of Escondido, California, from acquiring or holding shares of the capital stock of any mutual water company or corporation when such stock is so acquired or held for the purpose of furnishing a supply of water for public or municipal purposes…." Similar specific provisions were added in 1934 and 1942, allowing acquisition of mutual water company or corporation shares or stock first by "school districts and cities of the fifth and sixth class," and then by "the State."

The present language in Art. XVI, § 17 took shape in 1956. The legislature placed a measure on the 1956 ballot as Constitutional Amendment No. 29. The amendment repealed the provisions of Article IV just mentioned, and extended the water company provision to the State and each of its political subdivisions. The measure passed, and so as of 1956, Art. XII § 13 read: "The State shall not in any manner loan its credit, nor shall it subscribe to or be interested in the stock of any company, association, or corporation, *except that the State and each political subdivision, district, municipality, and public agency thereof is hereby authorized to acquire and hold shares of the capital stock of any mutual water company or corporation when such stock is so acquired or held for the purpose of furnishing a supply of water for public, municipal, or governmental purposes.*" Subsequent amendments to the

Constitution renumbered the provision, first to Art. XIII, § 42, and now to its current place at Art. XVI , § 17.[46]

As we have already remarked, we can find no record of our ever having encountered Cal. Const. Art. XVI, § 17 or its predecessors, much less of having exercised jurisdiction post-acquisition over a water corporation that has been acquired pursuant to them.[47] The parties have brought no such instances to our attention. It is notable as well that the only reported case discussing the provision in the context of the acquisition of a mutual water company or corporation is *Klajic I*. This proceeding would appear to present the first instance ever of a governmental entity that acquired shares in a water company seeking to have us exercise jurisdiction over the acquired entity.

The language of Art. XVI, § 17 is ambiguous. It raises the question of whether "mutual" modifies "water company" only, or modifies both "water company" and "corporation." That is, the text could be read equally well as "the State may hold shares in any mutual water company or in any mutual water corporation" or as "the State may hold shares in any mutual water company, or in any corporation."

Section 1858 of the California Code of Civil Procedure provides guidance on how to resolve this ambiguity:

---

[46] Amendments also added and revised the portions of the section relating to public pensions, which are not material here.

[47] We note that we did exercise jurisdiction over Independence Water Co. at a time when the Los Angeles Department of Water & Power (LADWP) owned 36.68% of outstanding shares. *See Application of Independence Water Co.*, D.78385, 72 CPUC 10, 1971 Cal. PUC Lexis 347. Share acquisition, in 1934, predated Art. XVI § 17 and its predecessors. We are unaware of the legal basis for LADWP's ongoing ownership of shares, or its subsequent acquisition of the company's remaining shares.

> In the construction of a statute . . . the office of the judge is simply to ascertain and declare what is in terms or in substance contained therein, not to insert what has been omitted, or to omit what has been inserted; and where there are several provisions or particulars, such a construction is, if possible, to be adopted as will give effect to all.

In addition, Section 1859 of the Code of Civil Procedure states that "[i]n the construction of a statute the intention of the Legislature . . . is to be pursued, if possible." These rules of statutory construction "appl[y] with equal force to initiative measures adopted by the electorate."[48]

Courts often examine ballot pamphlets to help discern an initiative's purposes. For instance, the California Supreme Court used the ballot pamphlet for Proposition 13 to interpret that initiative. The Court stated: "[W]hen, as here, the enactment follows voter approval, the ballot summary and arguments and analysis presented to the electorate in connection with a particular measure may be helpful in determining the probable meaning of uncertain language."[49] Reference to ballot pamphlets is a long-standing practice in California for the purposes of interpreting initiatives,[50] as the ballot pamphlet is analogous to the legislative history of a particular measure.

The ballot arguments for adoption of what is now Art. XVI, § 17 strongly suggest that Art. XVI, § 17, as envisioned in 1956, authorized only acquisition of

---

[48] People v. Callegri, 154 Cal. App. 3d 856, 866 (1984) (citing Sand v. Superior Court, 34 Cal. 3d 567, 571 (1983); Amador Valley Joint Union High School Dist. v. State Bd. of Equalization, 22 Cal. 3d 208, 245 (1978)).

[49] Amador Valley, 22 Cal. 3d at 245-46.

[50] See People v. Ottey, 5 Cal. 2d 714, 723 (1936) ("argument sent to the voters . . . may be resorted to as an aid in determining the intention of the framers and the electorate when . . . necessary.").

shares and/or stock in mutual water companies. As the ballot argument in favor of adoption states: "it . . . provide[s] a means by which public and private water users can work together harmoniously *through existing non-profit mutual water companies*."[51] There is no ambiguity here; the proponent's argument refers only to mutual water companies, and clarifies further that they should be not-for-profit.

We do not, as a general rule, regulate mutual water companies.[52] Insofar as Art. XVI, § 17 was only meant to – or was only perceived as meaning to – authorize acquisition of shares in non-profit mutual water companies, most or all invocations of authority under Art. XVI, § 17 and its predecessors would not draw our notice. That may be why we have not previously seen the fact pattern now before us. Valencia, we note, was a for-profit water corporation, prior to its acquisition, and not a mutual water company.

---

[51] 1956 Ballot, at 20 (Argument in Favor of Senate Constitutional Amendment No. 29) (emphasis added). We take official notice of the contents of the ballot proposition pursuant to Rule 13.9.

[52] A mutual water company is one that is "organized for the purposes of delivering water to its stockholders and members at cost . . . ." Section § 2705; *see*, *e.g.*, *Thayer v. California Development Co.* (1912) 164 Cal. 117 (a private water company may be organized to sell water for purposes of private gain and not in so doing become a public utility); *Stratton v. Railroad Commission* (1921) 186 Cal. 119 (mutual water company not a public utility, and so superior court, not the railroad commission, had jurisdiction over a dispute concerning allocation of water among stockholders in the mutual water company); *Mound Water Co. et al. v. Southern Cal. Edison Co.* (1921) 184 Cal. 602 (same). What is nominally a mutual water company may be, or may become, a public utility subject to the Commission's jurisdiction if it dedicates its assets to public use. *See Samuel Edwards Assocs. v. Railroad Comm.*, 196 Cal. 62 (1925); *see also Richfield Oil Corp.*, 54 Cal. 2d at 425 (discussing public dedication generally). So far as we are aware, Valencia has always been a for-profit public utility rather than a mutual water company or corporation.

The language of Art. XVI, § 17 and the ballot language that led to its adoption as part of the California Constitution suggest that Agency's reliance on Art. XVI, § 17 as authority permitting it to own Valencia as a for-profit entity would be misplaced. While that is ultimately for the courts rather than for us to determine,[53] even an unfounded public perception that Art. XVI, § 17 is limited to acquisition of mutual water company shares would explain why we have not encountered it previously. And so we face a question of first impression: does a governmental entity purchasing all a corporation's shares remove the purchased corporation from our jurisdiction?

3.3.3. The Commission's Jurisdiction Extends only to Private, For-Profit Utilities; The Commission Lacks Jurisdiction over Municipal Utilities

As discussed above, Cal. Const. Art. XII, § 3 extends the jurisdiction of this Commission only to "private corporations." The Public Utilities Act does not specifically define "private corporations," but does define "corporation" as including "a corporation, a company, an association, and a joint stock association." Absent from this list is any political subdivision of the State. [54]

The legislature may extend the Commission's jurisdiction to cover municipalities, under Cal. Const. Art. XII, § 5. As the Supreme Court noted in *County of Inyo*, the legislature had not extended this Commission's jurisdiction to cover municipal utilities serving customers outside of municipal boundaries. The legislature has still not done so.

---

[53] *See* discussion, above, re our lack of jurisdiction to review condemnations.

[54] Pub. Util. Code § 204.

Upon Agency's acquisition of Valencia, Valencia became a state-owned rather than "private" corporation. Just as whether Agency condemned Valencia's stock or assets is of no moment to whether we have jurisdiction to review the condemnation, whether Agency owns Valencia's stock or its assets is of no moment to whether we have ongoing jurisdiction to regulate Valencia. The effect is the same – Valencia is now a state-owned rather than privately-owned corporation. It is therefore outside our jurisdiction, pursuant to *City of Pasadena et al.* and *County of Inyo,* just as Valencia would be outside our jurisdiction going forward had Agency acquired all of Valencia's assets rather than its stock.

We recognize that the effect of our decision is to leave Valencia's customers without recourse to the Commission. The *Fresno* and *County of Inyo* decisions unequivocally establish that our desire to protect consumers does not confer standing to challenge a condemnation, and that unless the legislature "confer[s] jurisdiction upon the PUC to correct this situation"[55] we are unable to regulate Valencia going forward. Our desire to protect consumers does not of itself create jurisdiction. Thus, for instance, the residents of Inyo County were left subject "to the fixing of water rates by the [LADWP] over whom they have neither control nor check."[56] Their fate did not lead the Supreme Court to find that we had jurisdiction over LADWP rates.

We recognize as well that dicta in *Klajic I* may be read to imply that this Commission can retain jurisdiction even where Agency buys up a retail water company's stock. We do not subscribe to such a reading. *Klajic I* remanded to the trial court the question of our jurisdiction over the acquired entity; the *Klajic* trial

---

[55] *County of Inyo*, 26 Cal. 3d at 167.

[56] *Id.*

court and the *Klajic II* court never reached that question because of AB 134's passage. Thus the courts have never directly addressed the issue of our jurisdiction in a situation such as the one before us.

4. Conclusion

We conclude, as discussed herein, that we lack jurisdiction to review Agency's condemnation of Valencia, and that we lack ongoing regulatory jurisdiction over Valencia. Consistent with those conclusions, we dismiss the consolidated proceedings. We also cancel the certificate of public convenience and necessity for Valencia.[57]

5. Categorization and Need for Hearing

We affirm the preliminary determination of adjudicatory for the consolidated proceedings.

Our preliminary determination was that hearings were required in all of the consolidated proceedings. In light of our dismissal of those proceedings, we conclude that no hearings are necessary.

6. Comments on Proposed Decision

The proposed decision of the Administrative Law Judge in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of

[57] We note that there is at least some possibility that SCOPE may prevail in its Superior Court action against Valencia and Agency. If the acquisition is reversed, it may be that Valencia once again becomes a public utility subject to our jurisdiction. Should that be the case, we would expect Valencia to file on an expedited basis for a certificate of public convenience and necessity. We would also expect Valencia to refile its currently-effective tariffs so that we could put tariffs back in place quickly.

Practice and Procedure. The following parties filed comments: Agency, District, Land & Farming, ORA, SCOPE, Valencia. Each Party also filed reply comments.

District, ORA, SCOPE, and Valencia all ask us correct the Proposed Decision's (PD's) description of the area within which AB 134 authorized Valencia to provide retail service, and related discussion. We have corrected those portions of the decision. Since the corrections relate only to the background for our decision, they do not impact any of our conclusions of law or fact, or our ordering paragraphs.

Agency asks the Commission to "consider simply deleting the portions of the PD that are not relevant to the core questions resolved in the PD: (1) whether the Commission is vested with jurisdiction over Agency's acquisition of the shares of Valencia through eminent domain (Part 3.2.1 at pp.15-19; and (2) whether, following that acquisition, the Commission retains any jurisdiction over Valencia (Part 3.3.3 at pp. 26-28.)." Upon consideration of Agency's request, we opt to leave the PD's discussion of the transaction and related legal issues intact. As discussed in the PD, there are numerous unique aspects to these proceedings that warrant examination, even if they ultimately do not determine the proceedings' outcome. It is appropriate for us to set out the context for the jurisdictional dispute that we here resolve, as well as for us to discuss the potential practical ramifications of our decision.

Land & Farming continues to argue for ongoing Commission jurisdiction over Valencia. We do not find its arguments persuasive.

Land & Farming cites to Rule 7.1 and to the Commission's preliminary determination that hearings were required in these consolidated proceedings to argue that failing to hold hearings constitutes legal error. This argument lacks merit. A determination under Rule 7.1 that hearings are needed is merely

preliminary.[58] We may, as we do here, subsequently determine that no hearings are needed. Land & Farming offers no explanation for why hearings are needed to supplement the record here, where the only material fact – *i.e.,* that the government now wholly owns Valencia – is indisputable.

Land & Farming incorrectly contends that the PD "ignores" Valencia's status as a corporation in good standing. In fact, the decision holds that *even if* Valencia is a corporation in good standing (as Land & Farming contends), it is no longer a *privately owned* corporation. As discussed at length above, the state Constitution limits our remit to private corporations unless the legislature directs otherwise, and the legislature has not done so here.

Finally, Land & Farming devotes several pages of its brief to arguing that Valencia is not Agency's alter ego. Land & Farming's argument is not relevant to our decision. We make no finding on alter ego here, and need not do so to reach our conclusions.

7. Assignment of Proceeding

Catherine J. K. Sandoval is the assigned commissioner and Todd O. Edmister and Douglas M. Long are the co-assigned ALJ's and co-Presiding Officers in this proceeding.

Findings of Fact

1. Agency is a governmental entity.

---

[58] *See*, *e.g.*, Rule 7.1(b) (emphasis added): "Complaints - For each proceeding initiated by complaint, the Chief Administrative Law Judge, in consultation with the President of the Commission, shall determine the category of the proceeding and shall preliminarily determine the need for hearing."

2. Agency condemned all Valencia's stock through an eminent domain proceeding.

3. Valencia is now a wholly-owned subsidiary of Agency.

4. All pending motions not previously ruled on are moot.

Conclusions of Law

1. The Commission's jurisdiction is limited to "private corporations" except where the legislature has extended jurisdiction to a governmental entity.

2. The Commission lacks jurisdiction to subject condemnations by governmental entities to review under Cal. Pub. Util. Code §§ 851 or 854.

3. Because of Agency's acquisition of Valencia, Valencia is no longer a private corporation.

4. No legislation extends our jurisdiction to Valencia, now that Valencia is a wholly-owned subsidiary of Agency.

5. If a Commission-regulated water utility becomes governmentally-owned, its certificate of public convenience and necessity should be cancelled.

6. Castaic's motion to dismiss is partially granted. All pending motions not previously ruled on are denied.

O R D E R

IT IS ORDERED that:

1. The certificate of public convenience and necessity of Valencia Water Company is cancelled.

2. If Valencia Water Company becomes a public utility again in the future, we will entertain an application for a certificate of public convenience and necessity and a filing of tariffs.

3. Castaic Lake Water Agency's motion to dismiss is granted in part. All other outstanding motions are denied.

4. Application (A.) 13-01-003; Investigation 13-04-003; A. 13-01-004; and Case 13-01-005 are dismissed.

5. The consolidated proceedings are closed.

This order is effective today.

Dated February 27, 2014, at San Francisco, California.

MICHAEL R. PEEVEY
President
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
CARLA J. PETERMAN
MICHAEL PICKER
Commissioners

To: Mr. Tyler Montgomery, Los Angeles County Department of Regional Planning

From: Wendy Langhans, hlanghan@ix.netcom.com, 661-305-6188

Subject: Public Input Form on Scoping Meeting for Project No. 00-136

Date: October 20, 2014

Dear Mr. Montgomery,

After attending and speaking at the Scoping Meeting in Stevenson Ranch on October, 16, I would like to follow up with a written comment.

In Section 16. Recreation Subsection c (page 47) of the Initial Study, the document states, "The Project would not interfere with regional open space connectivity…" and gives it a rating of "Less than Significant Impact". Several references are cited, including the "One Valley, One Vision 2012".

I disagree with your rating of "Less than Significant Impact". On September 23, 2014, the City of Santa Clarita's City Council voted to "approved the purchase of 114.21 acres in the Newhall Pass area for open space preservation" at a cost of about $1.8 million dollars. This area is located approximately 2-3 miles southeast of the Aidlin Hills project.

In addition, the City of Santa Clarita is participating in the purchase of 302 acres of the former Los Lomas project, located in the Newhall Pass between the I5 and the SR-14.

I suggest that your references be expanded to include the City of Santa Clarita Open Space Preservation Districts documents, including the Open Space Work Program for FY 2014-5 (http://www.santa-clarita.com/Modules/ShowDocument.aspx?documentID=8816) and the Engineer's Report (http://www.santa-clarita.com/modules/showdocument.aspx?documentid=6835). You will find that the Aidlin Hills property lies within the OSPD's three mile Area of Benefit Boundary and, as part of the wildlife corridor connecting the Santa Susana and San Gabriel Mountains, is a category of property to be considered for acquisition by the OSPD.

I ask that the EIR address the issue of regional open space connectivity and include the work of the City of Santa Clarita's Open Space Preservation District in their analysis.

Thank you.

Wendy Langhans

Disclaimer: I am currently a member of the City of Santa Clarita Open Space Preservation District's Financial Accountability and Audit Panel. However, my comments are being made as a private citizen of the City of Santa Clarita and the County of Los Angeles.

From: Alex Stelmach [alex.stelmach@yahoo.com]
Sent: Friday, October 17, 2014 9:36 AM
To: Tyler Montgomery
Subject: EIR "Aidlin Hills" Project No. 00-136 (Lennar Homes)

Mr. Montgomery,

I was nice meeting you last night at the Scoping Meeting. Thank you for reviewing the tract issues with me (The Pumping Station.)

It was not until the very end of the meeting that a Lennar Rep identified the size of the homes to be built. 4-5 bedrooms in the 4,000 sq. ft. range. Those are large homes. 102 of them proposed to be built in a narrow box canyon doesn't seem to make a lot of sense, however, one issue based on the late information provided by Lennar is this...

With homes that big, I imagine them to have at least 3 bathrooms. **Where is the water going to come from** to supply the showers, fill the sinks and flush the toilets for all that daily activity? As mentioned, Valencia Water Company has notified all its customers here in Santa Clarita of the severe drought once again hitting California and has put us on water rationing.

If a fire strikes this area, is there enough water and pressure for "Aidlin Hills," or would they tap into other communities - putting them at risk?

And one issue that wasn't addressed (not knowing the size of the homes until the very and the meeting coming to a close) - **sewers**. With at least 3 bathrooms in these large homes and the bathrooms being used everyday - will this new community have its own sewer system - or will it tap into a existing line? And is that existing sewer system designed to handle an influx of daily waste from 102 homes. If not, a community health hazard seems very possible.

Thank you for your time and have a nice weekend.

Alex Stelmach
(Southern Oaks Homeowner)

From: Alex Stelmach [alex.stelmach@yahoo.com]
Sent: Friday, October 17, 2014 2:32 PM
To: Tyler Montgomery
Subject: EIR "Aidlin Hills" - Project No. 00-136 (Lennar Homes)

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Montgomery,

Just a follow-up to my earlier e-mail. My wife was not able to attend last night's meeting, however, when I mentioned the high visibility concerns (noise, water, traffic, school shortages) and the excavation process - she asked **what about all the dirt?** I believe it was stated that tens upon tens of thousands of cubic feet of dirt were going to have to be moved in order to prepare for the grading process. Where does that dirt go? Does it get trucked out and then brought back for "fill" purposes? Or, does it get pushed/bulldozed aside away from the construction site and left in giant size mountains of dirt until needed?

There is all sorts of unsettled and dormant bacteria/spores in dirt. When broken up, those spores become active. A lady at last night's meeting stated when the earthquake struck, she witnessed the mountains moving and clouds of dirt billowing out. This is what led to "Valley Fever," which hospitalized people. People breathed in the contaminated air and got sick.

I would hope the builder does not plan on stacking tens of thousands of cubic earth/dirt next to an established community.

Once again, thank you for your time. All the best.

Alex Stelmach
(Southern Oaks Homeowner)

Appendix B

Air Quality Worksheets

Aidlin Hills
Draft EIR
Appendix B, Air Quality Worksheets

B.1 Construction Emissions

- Construction: Emissions Summary
- Construction: Model Inputs
- Construction: CalEEMod Output (Summer)
- Construction: CalEEMod Output (Summer)- Mitigated
- Construction: CalEEMod Output (Winter)
- Construction: CalEEMod Output (Winter)- Mitigated
- Construction: CalEEMod Output Mitigation Report
- Construction: Fugitive Dust

B.2 Localized Significance Thresholds Analysis (LST)

B.3 Operational Emissions

- Operations : CalEEMod Output (Summer)
- Operations : CalEEMod Output (Winter)
- Operations : CalEEMod Output Mitigation Report

B.4 South Coast Air Quality Management District Rule 403

Appendix B.1
Construction Emissions

- Construction: Emissions Summary
- Construction: Model Inputs
- Construction: CalEEMod Output (Summer)
- Construction: CalEEMod Output (Summer)- Mitigated
- Construction: CalEEMod Output (Winter)
- Construction: CalEEMod Output (Winter)- Mitigated
- Construction: CalEEMod Output Mitigation Report
- Construction: Fugitive Dust

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Unmitigated Construction Emissions

Maximum Unmitigated Emissions by Construction Activity Type (pounds per day)

Construction Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
On-Site Emissions										
Grading (2015)	10.64	123.76	73.09	0.11	4.34	5.70	10.04	1.58	5.27	6.83
Grading (2016)	10.03	115.06	70.14	0.11	4.34	5.28	9.62	1.58	4.86	6.44
Grading & Utilities (2016)	12.45	135.64	85.39	0.13	4.34	6.76	11.10	1.58	6.28	7.86
Utilities (2016)	2.42	20.58	15.25	0.02	-	1.48	1.48	-	1.42	1.42
Utilities & Streets (2016)	4.91	42.96	30.07	0.05	-	2.74	2.74	-	2.58	2.58
Utilities & Streets (2017)	4.53	39.46	29.87	0.05	-	2.48	2.48	-	2.33	2.33
Utilities & Streets & Bldg. Constr. (2017)	7.83	67.97	49.24	0.07	-	4.39	4.39	-	4.12	4.12
Utilities & Bldg. Constr. (2017)	5.52	47.67	34.51	0.05	-	3.25	3.25	-	3.07	3.07
Bldg. Constr. (2017)	3.30	28.51	19.37	0.03	-	1.91	1.91	-	1.79	1.79
Bldg. Constr. & Coating (2017)	9.08	31.42	21.86	0.03	-	2.14	2.14	-	2.02	2.02
Bldg. Constr. & Coating (2018)	8.57	27.76	21.19	0.03	-	1.80	1.80	-	1.70	1.70
Bldg. Constr. & Coating (2019)	8.19	25.02	20.72	0.03	-	1.55	1.55	-	1.46	1.46
Off-Site Emissions										
Grading (2015)	0.13	0.18	2.01	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Grading (2016)	0.12	0.16	1.82	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Grading & Utilities (2016)	0.17	0.23	2.66	0.01	0.46	0.00	0.46	0.12	0.00	0.13
Utilities (2016)	0.06	0.07	0.84	0.00	0.15	0.00	0.15	0.04	0.00	0.04
Utilities & Streets (2016)	0.12	0.16	1.82	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Utilities & Streets (2017)	0.11	0.14	1.64	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Utilities & Streets & Bldg. Constr. (2017)	1.77	8.67	24.63	0.06	3.55	0.14	3.69	0.95	0.13	1.08
Utilities & Bldg. Constr. (2017)	1.71	8.59	23.82	0.06	3.38	0.14	3.52	0.91	0.13	1.03
Bldg. Constr. (2017)	1.67	8.53	23.12	0.05	3.23	0.14	3.37	0.87	0.13	0.99
Bldg. Constr. & Coating (2017)	1.85	8.77	25.70	0.06	3.77	0.14	3.91	1.01	0.13	1.14
Bldg. Constr. & Coating (2018)	1.69	8.04	23.82	0.06	3.77	0.13	3.90	1.01	0.12	1.13
Bldg. Constr. & Coating (2019)	1.57	7.40	22.33	0.06	3.77	0.13	3.90	1.01	0.12	1.13
Total Emissions										
Grading (2015)	10.78	123.94	75.10	0.11	4.65	5.70	10.36	1.66	5.28	6.92
Grading (2016)	10.15	115.22	71.96	0.11	4.65	5.28	9.94	1.66	4.86	6.53
Grading & Utilities (2016)	12.62	135.87	88.05	0.14	4.80	6.76	11.56	1.70	6.28	7.98
Utilities (2016)	2.47	20.65	16.09	0.03	0.15	1.48	1.62	0.04	1.42	1.46
Utilities & Streets (2016)	5.03	43.12	31.88	0.05	0.31	2.74	3.05	0.08	2.58	2.66
Utilities & Streets (2017)	4.63	39.60	31.51	0.05	0.31	2.48	2.80	0.08	2.33	2.42
Utilities & Streets & Bldg. Constr. (2017)	9.60	76.64	73.86	0.13	3.55	4.53	8.07	0.95	4.25	5.20
Utilities & Bldg. Constr. (2017)	7.23	56.27	58.33	0.11	3.38	3.39	6.77	0.91	3.20	4.11
Bldg. Constr. (2017)	4.97	37.04	42.49	0.08	3.23	2.05	5.28	0.87	1.92	2.79
Bldg. Constr. & Coating (2017)	10.93	40.20	47.57	0.09	3.77	2.28	6.05	1.01	2.15	3.16
Bldg. Constr. & Coating (2018)	10.26	35.79	45.01	0.09	3.77	1.93	5.70	1.01	1.83	2.84
Bldg. Constr. & Coating (2019)	9.76	32.43	43.05	0.09	3.77	1.67	5.44	1.01	1.58	2.59

Source: PCR Services Coporation, 2015

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Unmitigated Construction Emissions

Estimated Unmitigated Maximum Daily Construction Emissions - Summer (pounds per day)

Construction Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
3.2 Grading - 2015										
Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	10.64	123.76	73.09	0.10		5.70	5.70		5.25	5.25
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.13	0.16	2.01	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.2 Grading - 2016										
Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	10.03	115.06	70.14	0.11		5.28	5.28		4.86	4.86
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.12	0.15	1.82	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.3 Utilities - 2016										
Construction On-Site										
Off-Road	2.42	20.58	15.25	0.02		1.48	1.48		1.42	1.42
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.05	0.07	0.84	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.3 Utilities - 2017										
Construction On-Site										
Off-Road	2.21	19.16	15.14	0.02		1.34	1.34		1.28	1.28
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.05	0.06	0.76	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.4 Streets - 2016										
Construction On-Site										
Off-Road	2.09	22.39	14.82	0.02		1.26	1.26		1.16	1.16
Paving	0.41					-	-		-	-
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.08	0.97	0.00	0.17	0.00	0.17	0.04	0.00	0.05

3.4 Streets - 2017										
Construction On-Site										
Off-Road	1.91	20.30	14.73	0.02		1.14	1.14		1.05	1.05
Paving	0.41					-	-		-	-
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.07	0.88	0.00	0.17	0.00	0.17	0.04	0.00	0.05
3.5 Building Construction - 2017										
Construction On-Site										
Off-Road	3.30	28.51	19.37	0.03		1.91	1.91		1.79	1.79
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.69	7.12	8.44	0.02	0.56	0.11	0.68	0.16	0.10	0.26
Worker	0.89	1.12	14.03	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2018										
Construction On-Site										
Off-Road	2.84	25.08	18.72	0.03		1.60	1.60		1.50	1.50
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.65	6.54	8.04	0.02	0.56	0.11	0.67	0.16	0.10	0.26
Worker	0.81	1.02	12.75	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2019										
Construction On-Site										
Off-Road	2.50	22.58	18.26	0.03		1.37	1.37		1.29	1.29
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.61	6.03	7.74	0.02	0.56	0.10	0.66	0.16	0.09	0.25
Worker	0.74	0.94	11.72	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.6 Architectural Coating - 2017										
Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.44	2.91	2.49	0.00		0.23	0.23		0.23	0.23
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.18	0.23	2.82	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2018										
Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.40	2.67	2.47	0.00		0.20	0.20		0.20	0.20
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.16	0.20	2.56	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2019										
Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.36	2.45	2.46	0.00		0.17	0.17		0.17	0.17
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.15	0.19	2.35	0.01	0.54	0.00	0.54	0.14	0.00	0.15

Notes:

a. Fugitive dust emissions were calculated outside of CalEEMod. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Source: PCR Services Coporation, 2015.

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Unmitigated Construction Emissions

Estimated Unmitigated Maximum Daily Construction Emissions - Summer (pounds per day)

Pollutant	Grading (2015)	Grading (2016)	Grading & Utilities (2016)	Utilities (2016)	Utilities & Streets (2016)	Utilities & Streets (2017)	Utilities & Streets & Bldg Constr. (2017)	Utilities & Bldg Constr. (2017)	Bldg. Constr. (2017)	Bldg. Constr. & Coating (2017)	Bldg. Constr. & Coating (2018)	Bldg. Constr. & Coating (2019)
On-Site Emissions												
VOC	10.64	10.03	12.45	2.42	4.91	4.53	7.83	5.52	3.30	9.08	8.57	8.19
NOx	123.76	115.06	135.64	20.58	42.96	39.46	67.97	47.67	28.51	31.42	27.76	25.02
CO	73.09	70.14	85.39	15.25	30.07	29.87	49.24	34.51	19.37	21.86	21.19	20.72
SOx	0.10	0.11	0.13	0.02	0.05	0.05	0.07	0.05	0.03	0.03	0.03	0.03
Fugitive PM10 [a]	4.34	4.34	4.34	-	-	-	-	-	-	-	-	-
Exhaust PM10	5.70	5.28	6.76	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Total PM10 [b]	10.04	9.62	11.10	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Fugitive PM2.5 [a]	1.58	1.58	1.58	-	-	-	-	-	-	-	-	-
Exhaust PM2.5	5.25	4.86	6.28	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Total PM2.5 [b]	6.83	6.44	7.86	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Off-Site Emissions												
VOC	0.13	0.12	0.17	0.05	0.12	0.10	1.69	1.63	1.58	1.76	1.61	1.50
NOx	0.16	0.15	0.21	0.07	0.15	0.13	8.37	8.30	8.24	8.47	7.76	7.15
CO	2.01	1.82	2.66	0.84	1.82	1.64	24.12	23.24	22.47	25.29	23.35	21.81
SOx	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.06	0.05	0.06	0.06	0.06
Fugitive PM10 [a]	0.31	0.31	0.46	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.13	0.14	0.13	0.13
Total PM10 [b]	0.32	0.32	0.46	0.15	0.32	0.32	3.68	3.52	3.37	3.91	3.90	3.90
Fugitive PM2.5 [a]	0.08	0.08	0.12	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.12	0.13	0.12	0.12
Total PM2.5 [b]	0.09	0.09	0.13	0.04	0.09	0.09	1.08	1.03	0.99	1.14	1.13	1.13
Total Emissions												
VOC	10.77	10.15	12.62	2.47	5.03	4.63	9.52	7.15	4.89	10.84	10.18	9.69
NOx	123.92	115.21	135.85	20.65	43.11	39.59	76.34	55.97	36.75	39.89	35.52	32.18
CO	75.10	71.96	88.05	16.09	31.88	31.51	73.35	57.75	41.84	47.15	44.54	42.53
SOx	0.11	0.11	0.14	0.03	0.05	0.05	0.13	0.11	0.08	0.09	0.09	0.09
Fugitive PM10 [a]	4.65	4.65	4.80	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	5.70	5.28	6.76	1.48	2.74	2.48	4.53	3.39	2.04	2.28	1.93	1.67
Total PM10 [b]	10.36	9.94	11.56	1.62	3.05	2.80	8.07	6.77	5.28	6.05	5.70	5.44
Fugitive PM2.5 [a]	1.66	1.66	1.70	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	5.25	4.86	6.28	1.42	2.58	2.33	4.25	3.20	1.92	2.15	1.82	1.58
Total PM2.5 [b]	6.92	6.53	7.98	1.46	2.66	2.42	5.20	4.11	2.78	3.16	2.84	2.59

Notes:

a. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

b. Totals may not add up exactly due to rounding in the model calculations.

Source: PCR Services Coporation, 2015

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Unmitigated Construction Emissions

Estimated Unmitigated Maximum Daily Construction Emissions - Winter (pounds per day)

Construction Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
3.2 Grading - 2015										
Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	10.64	123.76	73.08	0.11		5.70	5.70		5.27	5.25
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.13	0.18	1.86	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.2 Grading - 2016										
Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	10.03	115.06	70.14	0.11		5.28	5.28		4.86	4.86
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.12	0.16	1.67	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.3 Utilities - 2016										
Construction On-Site										
Off-Road	2.42	20.58	15.25	0.02		1.48	1.48		1.42	1.42
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.07	0.78	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.3 Utilities - 2017										
Construction On-Site										
Off-Road	2.21	19.16	15.14	0.02		1.34	1.34		1.28	1.28
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.05	0.07	0.70	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.4 Streets - 2016										
Construction On-Site										
Off-Road	2.09	22.39	14.82	0.02		1.26	1.26		1.16	1.16
Paving	0.41					-	-		-	-
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.09	0.90	0.00	0.17	0.00	0.17	0.04	0.00	0.05

3.4 Streets - 2017										
Construction On-Site										
Off-Road	1.91	20.30	14.73	0.02		1.14	1.14		1.05	1.05
Paving	0.41					-	-		-	-
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.08	0.81	0.00	0.17	0.00	0.17	0.04	0.00	0.05
3.5 Building Construction - 2017										
Construction On-Site										
Off-Road	3.30	28.51	19.37	0.03		1.91	1.91		1.79	1.79
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.75	7.29	10.23	0.02	0.56	0.11	0.68	0.16	0.11	0.27
Worker	0.91	1.23	12.89	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2018										
Construction On-Site										
Off-Road	2.84	25.08	18.72	0.03		1.60	1.60		1.50	1.50
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.70	6.69	9.82	0.02	0.56	0.11	0.67	0.16	0.10	0.26
Worker	0.82	1.12	11.66	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2019										
Construction On-Site										
Off-Road	2.50	22.58	18.26	0.03		1.37	1.37		1.29	1.29
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.67	6.17	9.49	0.02	0.56	0.10	0.66	0.16	0.09	0.25
Worker	0.75	1.03	10.69	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.6 Architectural Coating - 2017										
Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.44	2.91	2.49	0.00		0.23	0.23		0.23	0.23
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.18	0.25	2.59	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2018										
Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.40	2.67	2.47	0.00		0.20	0.20		0.20	0.20
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.16	0.22	2.34	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2019										
Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.36	2.45	2.46	0.00		0.17	0.17		0.17	0.17
Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.15	0.21	2.15	0.01	0.54	0.00	0.54	0.14	0.00	0.15

Notes:

a. Fugitive dust emissions were calculated outside of CalEEMod. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Source: PCR Services Coporation, 2015.

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Unmitigated Construction Emissions

Estimated Unmitigated Maximum Daily Construction Emissions - Winter (pounds per day)

Pollutant	Grading (2015)	Grading (2016)	Grading & Utilities (2016)	Utilities (2016)	Utilities & Streets (2016)	Utilities & Streets (2017)	Utilities & Streets & Bldg Constr. (2017)	Utilities & Bldg Constr. (2017)	Bldg. Constr. (2017)	Bldg. Constr. & Coating (2017)	Bldg. Constr. & Coating (2018)	Bldg. Constr. & Coating (2019)
On-Site Emissions												
VOC	10.64	10.03	12.45	2.42	4.91	4.53	7.83	5.52	3.30	9.08	8.57	8.19
NOx	123.76	115.06	135.64	20.58	42.96	39.46	67.97	47.67	28.51	31.42	27.76	25.02
CO	73.08	70.14	85.39	15.25	30.07	29.87	49.24	34.51	19.37	21.86	21.19	20.72
SOx	0.11	0.11	0.13	0.02	0.05	0.05	0.07	0.05	0.03	0.03	0.03	0.03
Fugitive PM10 [a]	4.34	4.34	4.34	-	-	-	-	-	-	-	-	-
Exhaust PM10	5.70	5.28	6.76	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Total PM10 [b]	10.04	9.62	11.10	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Fugitive PM2.5 [a]	1.58	1.58	1.58	-	-	-	-	-	-	-	-	-
Exhaust PM2.5	5.27	4.86	6.27	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Total PM2.5 [b]	6.83	6.44	7.85	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Off-Site Emissions												
VOC	0.13	0.12	0.17	0.06	0.12	0.11	1.77	1.71	1.67	1.85	1.69	1.57
NOx	0.18	0.16	0.23	0.07	0.16	0.14	8.67	8.59	8.53	8.77	8.04	7.40
CO	1.86	1.67	2.45	0.78	1.67	1.51	24.63	23.82	23.12	25.70	23.82	22.33
SOx	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.05	0.05	0.06	0.06	0.06
Fugitive PM10 [a]	0.31	0.31	0.46	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.14	0.14	0.13	0.13
Total PM10 [b]	0.32	0.32	0.46	0.15	0.32	0.32	3.69	3.52	3.37	3.91	3.90	3.90
Fugitive PM2.5 [a]	0.08	0.08	0.12	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.13	0.13	0.12	0.12
Total PM2.5 [b]	0.09	0.09	0.13	0.04	0.09	0.09	1.08	1.03	0.99	1.14	1.13	1.13
Total Emissions												
VOC	10.78	10.15	12.62	2.47	5.03	4.63	9.60	7.23	4.97	10.93	10.26	9.76
NOx	123.94	115.22	135.87	20.65	43.12	39.60	76.64	56.27	37.04	40.20	35.79	32.43
CO	74.94	71.81	87.84	16.03	31.74	31.38	73.86	58.33	42.49	47.57	45.01	43.05
SOx	0.11	0.11	0.14	0.02	0.05	0.05	0.13	0.10	0.08	0.09	0.09	0.09
Fugitive PM10 [a]	4.65	4.65	4.80	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	5.70	5.28	6.76	1.48	2.74	2.48	4.53	3.39	2.05	2.28	1.93	1.67
Total PM10 [b]	10.36	9.94	11.56	1.62	3.05	2.80	8.07	6.77	5.28	6.05	5.70	5.44
Fugitive PM2.5 [a]	1.66	1.66	1.70	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	5.28	4.86	6.28	1.42	2.58	2.33	4.25	3.20	1.92	2.15	1.83	1.58
Total PM2.5 [b]	6.91	6.52	7.98	1.46	2.66	2.42	5.20	4.11	2.79	3.16	2.84	2.59

Notes:

a. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

b. Totals may not add up exactly due to rounding in the model calculations.

Source: PCR Services Coporation, 2015

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Mitigated Construction Emissions

Maximum Mitigated Emissions by Construction Activity Type (pounds per day)

Construction Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
On-Site Emissions										
Grading (2015)	3.54	57.78	65.46	0.11	4.34	2.72	7.06	1.58	2.65	4.23
Grading (2016)	3.48	57.25	65.42	0.11	4.34	2.66	7.00	1.58	2.60	4.18
Grading & Utilities (2016)	5.90	77.83	80.67	0.13	4.34	4.14	8.48	1.58	4.02	5.60
Utilities (2016)	2.42	20.58	15.25	0.02	-	1.48	1.48	-	1.42	1.42
Utilities & Streets (2016)	4.91	42.96	30.07	0.05	-	2.74	2.74	-	2.58	2.58
Utilities & Streets (2017)	4.53	39.46	29.87	0.05	-	2.48	2.48	-	2.33	2.33
Utilities & Streets & Bldg. Constr. (2017)	7.83	67.97	49.24	0.07	-	4.39	4.39	-	4.12	4.12
Utilities & Bldg. Constr. (2017)	5.52	47.67	34.51	0.05	-	3.25	3.25	-	3.07	3.07
Bldg. Constr. (2017)	3.30	28.51	19.37	0.03	-	1.91	1.91	-	1.79	1.79
Bldg. Constr. & Coating (2017)	9.08	31.42	21.86	0.03	-	2.14	2.14	-	2.02	2.02
Bldg. Constr. & Coating (2018)	8.57	27.76	21.19	0.03	-	1.80	1.80	-	1.70	1.70
Bldg. Constr. & Coating (2019)	8.19	25.02	20.72	0.03	-	1.55	1.55	-	1.46	1.46
Off-Site Emissions										
Grading (2015)	0.13	0.18	2.01	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Grading (2016)	0.12	0.16	1.82	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Grading & Utilities (2016)	0.17	0.23	2.66	0.01	0.46	0.00	0.46	0.12	0.00	0.13
Utilities (2016)	0.06	0.07	0.84	0.00	0.15	0.00	0.15	0.04	0.00	0.04
Utilities & Streets (2016)	0.12	0.16	1.82	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Utilities & Streets (2017)	0.11	0.14	1.64	0.00	0.31	0.00	0.32	0.08	0.00	0.09
Utilities & Streets & Bldg. Constr. (2017)	1.77	8.67	24.63	0.06	3.55	0.14	3.69	0.95	0.13	1.08
Utilities & Bldg. Constr. (2017)	1.71	8.59	23.82	0.06	3.38	0.14	3.52	0.91	0.13	1.03
Bldg. Constr. (2017)	1.67	8.53	23.12	0.05	3.23	0.14	3.37	0.87	0.13	0.99
Bldg. Constr. & Coating (2017)	1.85	8.77	25.70	0.06	3.77	0.14	3.91	1.01	0.13	1.14
Bldg. Constr. & Coating (2018)	1.69	8.04	23.82	0.06	3.77	0.13	3.90	1.01	0.12	1.13
Bldg. Constr. & Coating (2019)	1.57	7.40	22.33	0.06	3.77	0.13	3.90	1.01	0.12	1.13
Total Emissions										
Grading (2015)	3.67	57.96	67.47	0.11	4.65	2.72	7.37	1.66	2.65	4.32
Grading (2016)	3.60	57.41	67.24	0.11	4.65	2.66	7.32	1.66	2.60	4.27
Grading & Utilities (2016)	6.07	78.07	83.33	0.14	4.80	4.14	8.94	1.70	4.02	5.72
Utilities (2016)	2.47	20.65	16.09	0.03	0.15	1.48	1.62	0.04	1.42	1.46
Utilities & Streets (2016)	5.03	43.12	31.88	0.05	0.31	2.74	3.05	0.08	2.58	2.66
Utilities & Streets (2017)	4.63	39.60	31.51	0.05	0.31	2.48	2.80	0.08	2.33	2.42
Utilities & Streets & Bldg. Constr. (2017)	9.60	76.64	73.86	0.13	3.55	4.53	8.07	0.95	4.25	5.20
Utilities & Bldg. Constr. (2017)	7.23	56.27	58.33	0.11	3.38	3.39	6.77	0.91	3.20	4.11
Bldg. Constr. (2017)	4.97	37.04	42.49	0.08	3.23	2.05	5.28	0.87	1.92	2.79
Bldg. Constr. & Coating (2017)	10.93	40.20	47.57	0.09	3.77	2.28	6.05	1.01	2.15	3.16
Bldg. Constr. & Coating (2018)	10.26	35.79	45.01	0.09	3.77	1.93	5.70	1.01	1.83	2.84
Bldg. Constr. & Coating (2019)	9.76	32.43	43.05	0.09	3.77	1.67	5.44	1.01	1.58	2.59

Source: PCR Services Coporation, 2015

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Mitigated Construction Emissions

Estimated Mitigated Maximum Daily Construction Emissions - Summer (pounds per day)

Construction Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
3.2 Grading - 2015										
Mitigated Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	3.54	57.78	65.46	0.11		2.72	2.72		2.65	2.65
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.13	0.16	2.01	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.2 Grading - 2016										
Mitigated Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	3.48	57.25	65.42	0.11		2.66	2.66		2.60	2.60
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.12	0.15	1.82	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.3 Utilities - 2016										
Mitigated Construction On-Site										
Off-Road	2.42	20.58	15.25	0.02		1.48	1.48		1.42	1.42
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.05	0.07	0.84	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.3 Utilities - 2017										
Mitigated Construction On-Site										
Off-Road	2.21	19.16	15.14	0.02		1.34	1.34		1.28	1.28
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.05	0.06	0.76	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.4 Streets - 2016										
Mitigated Construction On-Site										
Off-Road	2.09	22.39	14.82	0.02		1.26	1.26		1.16	1.16
Paving	0.41					-	-		-	-
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.08	0.97	0.00	0.17	0.00	0.17	0.04	0.00	0.05

3.4 Streets - 2017										
Mitigated Construction On-Site										
Off-Road	1.91	20.30	14.73	0.02		1.14	1.14		1.05	1.05
Paving	0.41					-	-		-	-
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.07	0.88	0.00	0.17	0.00	0.17	0.04	0.00	0.05
3.5 Building Construction - 2017										
Mitigated Construction On-Site										
Off-Road	3.30	28.51	19.37	0.03		1.91	1.91		1.79	1.79
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.69	7.12	8.44	0.02	0.56	0.11	0.68	0.16	0.10	0.26
Worker	0.89	1.12	14.03	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2018										
Mitigated Construction On-Site										
Off-Road	2.84	25.08	18.72	0.03		1.60	1.60		1.50	1.50
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.65	6.54	8.04	0.02	0.56	0.11	0.67	0.16	0.10	0.26
Worker	0.81	1.02	12.75	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2019										
Mitigated Construction On-Site										
Off-Road	2.50	22.58	18.26	0.03		1.37	1.37		1.29	1.29
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.61	6.03	7.74	0.02	0.56	0.10	0.66	0.16	0.09	0.25
Worker	0.74	0.94	11.72	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.6 Architectural Coating - 2017										
Mitigated Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.44	2.91	2.49	0.00		0.23	0.23		0.23	0.23
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.18	0.23	2.82	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2018										
Mitigated Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.40	2.67	2.47	0.00		0.20	0.20		0.20	0.20
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.16	0.20	2.56	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2019										
Mitigated Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.36	2.45	2.46	0.00		0.17	0.17		0.17	0.17
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.15	0.19	2.35	0.01	0.54	0.00	0.54	0.14	0.00	0.15

Notes:

a. Fugitive dust emissions were calculated outside of CalEEMod. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Source: PCR Services Coporation, 2015.

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Mitigated Construction Emissions

Estimated Mitigated Maximum Daily Construction Emissions - Summer (pounds per day)

Pollutant	Grading (2015)	Grading (2016)	Grading & Utilities (2016)	Utilities (2016)	Utilities & Streets (2016)	Utilities & Streets (2017)	Utilities & Streets & Bldg Constr. (2017)	Utilities & Bldg Constr. (2017)	Bldg. Constr. (2017)	Bldg. Constr. & Coating (2017)	Bldg. Constr. & Coating (2018)	Bldg. Constr. & Coating (2019)
On-Site Emissions												
VOC	3.54	3.48	5.90	2.42	4.91	4.53	7.83	5.52	3.30	9.08	8.57	8.19
NOx	57.78	57.25	77.83	20.58	42.96	39.46	67.97	47.67	28.51	31.42	27.76	25.02
CO	65.46	65.42	80.67	15.25	30.07	29.87	49.24	34.51	19.37	21.86	21.19	20.72
SOx	0.11	0.11	0.13	0.02	0.05	0.05	0.07	0.05	0.03	0.03	0.03	0.03
Fugitive PM10 [a]	4.34	4.34	4.34	-	-	-	-	-	-	-	-	-
Exhaust PM10	2.72	2.66	4.14	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Total PM10 [b]	7.06	7.00	8.48	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Fugitive PM2.5 [a]	1.58	1.58	1.58	-	-	-	-	-	-	-	-	-
Exhaust PM2.5	2.65	2.60	4.02	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Total PM2.5 [b]	4.23	4.18	5.60	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Off-Site Emissions												
VOC	0.13	0.12	0.17	0.05	0.12	0.10	1.69	1.63	1.58	1.76	1.61	1.50
NOx	0.16	0.15	0.21	0.07	0.15	0.13	8.37	8.30	8.24	8.47	7.76	7.15
CO	2.01	1.82	2.66	0.84	1.82	1.64	24.12	23.24	22.47	25.29	23.35	21.81
SOx	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.06	0.05	0.06	0.06	0.06
Fugitive PM10 [a]	0.31	0.31	0.46	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.13	0.14	0.13	0.13
Total PM10 [b]	0.32	0.32	0.46	0.15	0.32	0.32	3.68	3.52	3.37	3.91	3.90	3.90
Fugitive PM2.5 [a]	0.08	0.08	0.12	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.12	0.13	0.12	0.12
Total PM2.5 [b]	0.09	0.09	0.13	0.04	0.09	0.09	1.08	1.03	0.99	1.14	1.13	1.13
Total Emissions												
VOC	3.67	3.59	6.07	2.47	5.03	4.63	9.52	7.15	4.89	10.84	10.18	9.69
NOx	57.95	57.40	78.04	20.65	43.11	39.59	76.34	55.97	36.75	39.89	35.52	32.18
CO	67.47	67.24	83.33	16.09	31.88	31.51	73.35	57.75	41.84	47.15	44.54	42.53
SOx	0.11	0.11	0.14	0.03	0.05	0.05	0.13	0.11	0.08	0.09	0.09	0.09
Fugitive PM10 [a]	4.65	4.65	4.80	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	2.72	2.66	4.14	1.48	2.74	2.48	4.53	3.39	2.04	2.28	1.93	1.67
Total PM10 [b]	7.37	7.32	8.94	1.62	3.05	2.80	8.07	6.77	5.28	6.05	5.70	5.44
Fugitive PM2.5 [a]	1.66	1.66	1.70	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	2.65	2.60	4.02	1.42	2.58	2.33	4.25	3.20	1.92	2.15	1.82	1.58
Total PM2.5 [b]	4.32	4.27	5.72	1.46	2.66	2.42	5.20	4.11	2.78	3.16	2.84	2.59

Notes:

a. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

b. Totals may not add up exactly due to rounding in the model calculations.

Source: PCR Services Coporation, 2015

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Mitigated Construction Emissions

Estimated Mitigated Maximum Daily Construction Emissions - Winter (pounds per day)

Construction Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
3.2 Grading - 2015										
Mitigated Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	3.54	57.78	65.46	0.11		2.72	2.72		2.65	2.65
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.13	0.18	1.86	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.2 Grading - 2016										
Mitigated Construction On-Site										
Fugitive Dust [a]					4.34	-	4.34	1.58	-	1.58
Off-Road	3.48	57.25	65.42	0.11		2.66	2.66		2.60	2.60
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.12	0.16	1.67	0.00	0.31	0.00	0.32	0.08	0.00	0.09
3.3 Utilities - 2016										
Mitigated Construction On-Site										
Off-Road	2.42	20.58	15.25	0.02		1.48	1.48		1.42	1.42
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.07	0.78	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.3 Utilities - 2017										
Mitigated Construction On-Site										
Off-Road	2.21	19.16	15.14	0.02		1.34	1.34		1.28	1.28
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.05	0.07	0.70	0.00	0.15	0.00	0.15	0.04	0.00	0.04
3.4 Streets - 2016										
Mitigated Construction On-Site										
Off-Road	2.09	22.39	14.82	0.02		1.26	1.26		1.16	1.16
Paving	0.41					-	-		-	-
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.09	0.90	0.00	0.17	0.00	0.17	0.04	0.00	0.05

3.4 Streets - 2017										
Mitigated Construction On-Site										
Off-Road	1.91	20.30	14.73	0.02		1.14	1.14		1.05	1.05
Paving	0.41					-	-		-	-
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.06	0.08	0.81	0.00	0.17	0.00	0.17	0.04	0.00	0.05
3.5 Building Construction - 2017										
Mitigated Construction On-Site										
Off-Road	3.30	28.51	19.37	0.03		1.91	1.91		1.79	1.79
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.75	7.29	10.23	0.02	0.56	0.11	0.68	0.16	0.11	0.27
Worker	0.91	1.23	12.89	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2018										
Mitigated Construction On-Site										
Off-Road	2.84	25.08	18.72	0.03		1.60	1.60		1.50	1.50
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.70	6.69	9.82	0.02	0.56	0.11	0.67	0.16	0.10	0.26
Worker	0.82	1.12	11.66	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.5 Building Construction - 2019										
Mitigated Construction On-Site										
Off-Road	2.50	22.58	18.26	0.03		1.37	1.37		1.29	1.29
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	0.67	6.17	9.49	0.02	0.56	0.10	0.66	0.16	0.09	0.25
Worker	0.75	1.03	10.69	0.03	2.67	0.02	2.69	0.71	0.02	0.73
3.6 Architectural Coating - 2017										
Mitigated Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.44	2.91	2.49	0.00		0.23	0.23		0.23	0.23
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.18	0.25	2.59	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2018										
Mitigated Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.40	2.67	2.47	0.00		0.20	0.20		0.20	0.20
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.16	0.22	2.34	0.01	0.54	0.00	0.54	0.14	0.00	0.15
3.6 Architectural Coating - 2019										
Mitigated Construction On-Site										
Archit. Coating	5.33					-	-		-	-
Off-Road	0.36	2.45	2.46	0.00		0.17	0.17		0.17	0.17
Mitigated Construction Off-Site										
Hauling	-	-	-	-	-	-	-	-	-	-
Vendor	-	-	-	-	-	-	-	-	-	-
Worker	0.15	0.21	2.15	0.01	0.54	0.00	0.54	0.14	0.00	0.15

Notes:

a. Fugitive dust emissions were calculated outside of CalEEMod. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Source: PCR Services Coporation, 2015.

Aidlin Hills Project
Draft EIR
Air Quality - Construction Emissions
Summary of Estimated Mitigated Construction Emissions

Estimated Mitigated Maximum Daily Construction Emissions - Winter (pounds per day)

Pollutant	Grading (2015)	Grading (2016)	Grading & Utilities (2016)	Utilities (2016)	Utilities & Streets (2016)	Utilities & Streets (2017)	Utilities & Streets & Bldg Constr. (2017)	Utilities & Bldg Constr. (2017)	Bldg. Constr. (2017)	Bldg. Constr. & Coating (2017)	Bldg. Constr. & Coating (2018)	Bldg. Constr. & Coating (2019)
On-Site Emissions												
VOC	3.54	3.48	5.90	2.42	4.91	4.53	7.83	5.52	3.30	9.08	8.57	8.19
NOx	57.78	57.25	77.83	20.58	42.96	39.46	67.97	47.67	28.51	31.42	27.76	25.02
CO	65.46	65.42	80.67	15.25	30.07	29.87	49.24	34.51	19.37	21.86	21.19	20.72
SOx	0.11	0.11	0.13	0.02	0.05	0.05	0.07	0.05	0.03	0.03	0.03	0.03
Fugitive PM10 [a]	4.34	4.34	4.34	-	-	-	-	-	-	-	-	-
Exhaust PM10	2.72	2.66	4.14	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Total PM10 [b]	7.06	7.00	8.48	1.48	2.74	2.48	4.39	3.25	1.91	2.14	1.80	1.55
Fugitive PM2.5 [a]	1.58	1.58	1.58	-	-	-	-	-	-	-	-	-
Exhaust PM2.5	2.65	2.60	4.02	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Total PM2.5 [b]	4.23	4.18	5.60	1.42	2.58	2.33	4.12	3.07	1.79	2.02	1.70	1.46
Off-Site Emissions												
VOC	0.13	0.12	0.17	0.06	0.12	0.11	1.77	1.71	1.67	1.85	1.69	1.57
NOx	0.18	0.16	0.23	0.07	0.16	0.14	8.67	8.59	8.53	8.77	8.04	7.40
CO	1.86	1.67	2.45	0.78	1.67	1.51	24.63	23.82	23.12	25.70	23.82	22.33
SOx	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.05	0.05	0.06	0.06	0.06
Fugitive PM10 [a]	0.31	0.31	0.46	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.14	0.14	0.13	0.13
Total PM10 [b]	0.32	0.32	0.46	0.15	0.32	0.32	3.69	3.52	3.37	3.91	3.90	3.90
Fugitive PM2.5 [a]	0.08	0.08	0.12	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.13	0.13	0.12	0.12
Total PM2.5 [b]	0.09	0.09	0.13	0.04	0.09	0.09	1.08	1.03	0.99	1.14	1.13	1.13
Total Emissions												
VOC	3.67	3.60	6.07	2.47	5.03	4.63	9.60	7.23	4.97	10.93	10.26	9.76
NOx	57.96	57.41	78.07	20.65	43.12	39.60	76.64	56.27	37.04	40.20	35.79	32.43
CO	67.32	67.10	83.13	16.03	31.74	31.38	73.86	58.33	42.49	47.57	45.01	43.05
SOx	0.11	0.11	0.14	0.02	0.05	0.05	0.13	0.10	0.08	0.09	0.09	0.09
Fugitive PM10 [a]	4.65	4.65	4.80	0.15	0.31	0.31	3.55	3.38	3.23	3.77	3.77	3.77
Exhaust PM10	2.72	2.66	4.14	1.48	2.74	2.48	4.53	3.39	2.05	2.28	1.93	1.67
Total PM10 [b]	7.37	7.32	8.94	1.62	3.05	2.80	8.07	6.77	5.28	6.05	5.70	5.44
Fugitive PM2.5 [a]	1.66	1.66	1.70	0.04	0.08	0.08	0.95	0.91	0.87	1.01	1.01	1.01
Exhaust PM2.5	2.65	2.60	4.02	1.42	2.58	2.33	4.25	3.20	1.92	2.15	1.83	1.58
Total PM2.5 [b]	4.32	4.27	5.72	1.46	2.66	2.42	5.20	4.11	2.79	3.16	2.84	2.59

Notes:

a. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

b. Totals may not add up exactly due to rounding in the model calculations.

Source: PCR Services Coporation, 2015

Aidlin Hills Project
Draft EIR
Air Quality and Greenhouse Gas Assessment

Project Information

Land Uses	Units	
Residential DU	102	DU
Residential Area	20.8	acres
	357,000	sf
Open Space	196.1	acres
Water Quality Basin	*1.5*	*acres*
Landscape/Natural	*193.3*	*acres*
Public Streets/Fire Access Road	11.0	*acres*
Water Tanks/Pump Stations	3.9	acres

Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs

Construction Activity Phase	Model Run Phase	Start Date	End Date	No. Work Days[a]	Land disturbed (acres)	Soil Cut (cy)	Soil Fill (cy)	Soil Import (cy)
Grading/Excavation	Grading	11/24/2015	6/20/2016	180	37.2	1,300,000	1,300,000	-
Utilities	Trenching	5/2/2016	1/31/2017	236				
Building Construction	Building Construction	1/9/2017	6/28/2019	773				
Streets	Paving	10/31/2016	1/20/2017	71				
Architectural Coating	Architectural Coating	8/15/2017	6/28/2019	586				

Notes:

a. Includes Mondays through Saturdays.

Source: Lennar Corporation, 2014; PCR Service Corporation, 2014.

Aidlin Hills Project
Draft EIR
Air Quality and Greenhouse Gas Assessment

Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs

Construction Activity Phase	Heavy-Duty Equipment	No. of Heavy-Duty Equipment	Max Hours of Operation/Day	Max Hours of Operation/Week
Grading/Excavation	Excavators	3	8	48
	Graders	1	8	48
	Scrapers	2	8	48
	Rubber Tired Dozers	1	8	48
	Tractors/Loaders/Backhoes	3	8	48
	Off-Highway Trucks	3	8	48
Utilities	Rough Terrain Forklift	1	8	48
	Generator Sets	1	8	48
	Pumps	1	8	48
	Tractors/Loaders/Backhoes	1	8	48
	Trencher	1	8	48
Streets	Paver	2	8	48
	Paving Equipment	2	8	48
	Roller	2	8	48
Building Construction	Cranes	1	8	48
	Forklifts	3	8	48
	Generator Sets	1	8	48
	Tractors/Loaders/Backhoes	3	8	48
	Welders	1	8	48
Architectural Coating	Air Compressors	1	8	48

Source: Lennar Corporation, 2014; PCR Service Corporation, 2014.

□idlin □ill□ □ro□ect □□□ □□on□tr□ction

□o□th □oa□t □ir □a□in□□□□ □er

□□□ □ro□ect □haracteri□tic□

□□□ □and □□a□e

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.00	1000sqft	3.90	3,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
User Defined Recreational	1.00	User Defined Unit	1.50	0.00	0
Single Family Housing	102.00	Dwelling Unit	20.80	357,000.00	306

□□□ □ther □ro□ect □haracteri□tic□

□r□ani□ation	Urban	**□ ind □peed □□ □□□**	2.2	**□recipitation □re□ □□a□□□**	31
□li□ ate □one	9			**□perational □ear**	2019
□tilit□ □o□ pan□	Southern California Edison				
□□□ □nten□it□ □□M□ hr□	630.89	**□□□ □nten□it□ □□M□ hr□**	0.029	**□□□ □nten□it□ □□M□ hr□**	0.006

□□□ □□er □ntered □o□ □ent□ □ □on□□e□a□lt □ata

Project Characteristics -

Land Use - Floor area based on avg sf of 3,500 per DU (range of 2,700-4,300 sf); Pop. based on 3 residents/household in LA County; 3.9 acres for 2 H2O tanks/1 pump station; 1.5 acres for H2O quality basins; 11 acres streets (fire access & public).

Construction Phase - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Trips and VMT -

Grading - Acres disturbed: 37.2

Architectural Coating - Residential coating area based on 357,000 sf total floor area for 102 DUs; Non-residential coating for streets based on 6% of 11 acres per CalEEMod User's Guide, Appendix E (479160 * 0.06 = 28,750 sf).

Construction Off-road Equipment Mitigation - Water exposed area 3 times daily (61% reduction PM10 and PM2.5); Limit vehicle speeds to 15 mph on unpaved roads.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	241,080.00	28,750.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	723,240.00	0.00
tblConstructionPhase	NumDays	55.00	586.00
tblConstructionPhase	NumDays	740.00	773.00
tblConstructionPhase	NumDays	75.00	180.00
tblConstructionPhase	NumDays	55.00	71.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	5/12/2021	6/28/2019
tblConstructionPhase	PhaseEndDate	7/11/2019	6/28/2019
tblConstructionPhase	PhaseEndDate	4/24/2017	1/20/2017
tblConstructionPhase	PhaseEndDate	3/22/2017	1/31/2017
tblConstructionPhase	PhaseStartDate	6/29/2019	8/15/2017
tblConstructionPhase	PhaseStartDate	1/21/2017	1/9/2017
tblConstructionPhase	PhaseStartDate	2/1/2017	10/31/2016
tblConstructionPhase	PhaseStartDate	6/21/2016	5/2/2016
tblGrading	AcresOfGrading	450.00	37.20
tblLandUse	LandUseSquareFeet	183,600.00	357,000.00

tblLandUse	LotAcreage	0.07	3.90
tblLandUse	LotAcreage	0.00	1.50
tblLandUse	LotAcreage	33.12	20.80
tblLandUse	Population	292.00	306.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019

□□□ □□ i□□ion□ □□□ □ ar□

□□□ □ □erall □on□tr□ction □Ma□i□ □□ □ail□ □□ i□□ion□

□n□ iti□ated □on□tr□ction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	10.7733	123.9211	75.0906	0.1137	6.5542	5.7047	12.2589	3.4169	5.2483	8.6652	0.0000	11,862.8947	11,862.8947	3.4571	0.0000	11,935.4946
2016	12.6218	135.8464	88.0489	0.1386	6.6995	6.7629	13.4624	3.4554	6.2775	9.7329	0.0000	14,164.0352	14,164.0352	3.8917	0.0000	14,245.7611
2017	10.8420	76.3404	73.3542	0.1315	3.7706	4.5268	8.0738	1.0110	4.2481	5.1998	0.0000	12,369.6378	12,369.6378	1.9893	0.0000	12,411.4122
2018	10.1848	35.5151	44.5415	0.0928	3.7706	1.9329	5.7035	1.0110	1.8244	2.8355	0.0000	8,234.3743	8,234.3743	0.8964	0.0000	8,253.1996
2019	9.6929	32.1754	42.5298	0.0926	3.7707	1.6724	5.4430	1.0110	1.5785	2.5895	0.0000	8,045.2152	8,045.2152	0.8718	0.0000	8,063.5233
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□	□□□□□□	□□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□	□□□□□□	□□□□□	□□□□□□□□□

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	10.7733	123.9211	75.0906	0.1137	2.7471	5.7047	8.4517	1.3832	5.2483	6.6315	0.0000	11,862.8947	11,862.8947	3.4571	0.0000	11,935.4946
2016	12.6218	135.8464	88.0489	0.1386	2.8924	6.7629	9.6553	1.4218	6.2775	7.6992	0.0000	14,164.0352	14,164.0352	3.8917	0.0000	14,245.7610
2017	10.8420	76.3404	73.3542	0.1315	3.7706	4.5268	8.0738	1.0110	4.2481	5.1998	0.0000	12,369.6378	12,369.6378	1.9893	0.0000	12,411.4122
2018	10.1848	35.5151	44.5415	0.0928	3.7706	1.9329	5.7035	1.0110	1.8244	2.8355	0.0000	8,234.3743	8,234.3743	0.8964	0.0000	8,253.1996
2019	9.6929	32.1754	42.5298	0.0926	3.7707	1.6724	5.4430	1.0110	1.5785	2.5895	0.0000	8,045.2152	8,045.2152	0.8718	0.0000	8,063.5233
Total																

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction																

Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/24/2015	6/20/2016	6	180	
2	Utilities	Trenching	5/2/2016	1/31/2017	6	236	
3	Streets	Paving	10/31/2016	1/20/2017	6	71	
4	Building Construction	Building Construction	1/9/2017	6/28/2019	6	773	
5	Architectural Coating	Architectural Coating	8/15/2017	6/28/2019	6	586	

Acres of Grading (Site Preparation Phase)

Acres of Grading (Grading Phase)

□cre□ o□□a□in□□□

□e□idential □ndoor□□□□□□□□□e□idential □ □tdoor□□□□□□□□□on□□e□idential □ndoor□□□□on□□e□idential □ □tdoor□□□□□□□ □□rchitect□ral

□ □□□oad □□□ip□ ent

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	3	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	3	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Utilities	Generator Sets	1	8.00	84	0.74
Utilities	Pumps	1	8.00	84	0.74
Utilities	Rough Terrain Forklifts	1	8.00	100	0.40
Utilities	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utilities	Trenchers	1	8.00	80	0.50
Streets	Pavers	2	8.00	125	0.42
Streets	Paving Equipment	2	8.00	130	0.36
Streets	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48

□rip□ and □M□

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	11	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streets	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	239.00	90.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

□□□ Miti□ation Mea□□re□ □on□tr□ction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

□□□ Gradin□ □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.6442	123.7595	73.0849	0.1097		5.7019	5.7019		5.2457	5.2457		11,517.9258	11,517.9258	3.4386		11,590.1361
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1291	0.1616	2.0057	3.9700e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		344.9689	344.9689	0.0186		345.3586
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	10.6442	123.7595	73.0849	0.1097		5.7019	5.7019		5.2457	5.2457	0.0000	11,517.9258	11,517.9258	3.4386		11,590.1360
□otal	□□□□□□	□□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□ □□	□□□□□□□□ □	□□□□□□		□□□□□□□□ □□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1291	0.1616	2.0057	3.9700e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		344.9689	344.9689	0.0186		345.3586
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ Gradin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.0340	115.0554	70.1404	0.1096		5.2811	5.2811		4.8586	4.8586		11,389.1097	11,389.1097	3.4354		11,461.2522
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□	□□□□□□	□□□□□	□□□□□□□	□□□□□	□□□□□□	□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1166	0.1458	1.8162	3.9700e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		333.0831	333.0831	0.0171		333.4417
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□	□□□□□	□□□□□**e**□ □□□	□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	10.0340	115.0554	70.1404	0.1096		5.2811	5.2811		4.8586	4.8586	0.0000	11,389.1097	11,389.1097	3.4354		11,461.2522
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□	□□□□□□	□□□□□	□□□□□□□	□□□□□	□□□□□□	□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1166	0.1458	1.8162	3.9700e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		333.0831	333.0831	0.0171		333.4417
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □tilitie□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153		2,287.1966	2,287.1966	0.4314		2,296.2549
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0541	0.0677	0.8432	1.8400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		154.6457	154.6457	7.9300e-003		154.8122
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153	0.0000	2,287.1966	2,287.1966	0.4314		2,296.2549
Total																

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0541	0.0677	0.8432	1.8400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		154.6457	154.6457	7.9300e-003		154.8122
Total																

Area Utilities

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831		2,270.6316	2,270.6316	0.4181		2,279.4111
Total																

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.7275	148.7275	7.3200e-003		148.8811
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831	0.0000	2,270.6316	2,270.6316	0.4181		2,279.4111
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.7275	148.7275	7.3200e-003		148.8811
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

□□□ □treet□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□e□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

□□□ □treet□ □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

□□□ □□ildin□ □on□tr□ction □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□		□□□□□	□□□□□		□□□□□	□□□□□		□□□□□□□□□□	□□□□□□□□□	□□□□□		□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6891	7.1169	8.4429	0.0196	0.5626	0.1133	0.6759	0.1603	0.1042	0.2644		1,932.0044	1,932.0044	0.0136		1,932.2906
Worker	0.8945	1.1237	14.0301	0.0338	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,734.2975	2,734.2975	0.1345		2,737.1222
□otal	□□□□□□	□□□□□	□□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□		□□□□□□□□□□	□□□□□□□□□	□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□		□□□□□	□□□□□		□□□□□	□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□	□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6891	7.1169	8.4429	0.0196	0.5626	0.1133	0.6759	0.1603	0.1042	0.2644		1,932.0044	1,932.0044	0.0136		1,932.2906
Worker	0.8945	1.1237	14.0301	0.0338	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,734.2975	2,734.2975	0.1345		2,737.1222
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□□□ □□ildin□ □on□tr□ction □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□n□ iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6464	6.5355	8.0439	0.0195	0.5627	0.1068	0.6694	0.1603	0.0982	0.2584		1,899.6064	1,899.6064	0.0135		1,899.8908
Worker	0.8064	1.0194	12.7477	0.0338	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,632.5553	2,632.5553	0.1249		2,635.1771
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6464	6.5355	8.0439	0.0195	0.5627	0.1068	0.6694	0.1603	0.0982	0.2584		1,899.6064	1,899.6064	0.0135		1,899.8908
Worker	0.8064	1.0194	12.7477	0.0338	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,632.5553	2,632.5553	0.1249		2,635.1771
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□□□ □□ildin□ □on□tr□ction □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6123	6.0292	7.7417	0.0195	0.5627	0.1013	0.6640	0.1603	0.0932	0.2535		1,862.5909	1,862.5909	0.0133		1,862.8699
Worker	0.7422	0.9351	11.7158	0.0338	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,532.7458	2,532.7458	0.1169		2,535.1999
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6123	6.0292	7.7417	0.0195	0.5627	0.1013	0.6640	0.1603	0.0932	0.2535		1,862.5909	1,862.5909	0.0133		1,862.8699
Worker	0.7422	0.9351	11.7158	0.0338	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,532.7458	2,532.7458	0.1169		2,535.1999
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1796	0.2257	2.8178	6.8000e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		549.1476	549.1476	0.0270		549.7149
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1796	0.2257	2.8178	6.8000e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		549.1476	549.1476	0.0270		549.7149
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1620	0.2047	2.5602	6.7900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		528.7140	528.7140	0.0251		529.2406
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1620	0.2047	2.5602	6.7900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		528.7140	528.7140	0.0251		529.2406
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		375.9297
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□**e**□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1491	0.1878	2.3530	6.7800e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		508.6686	508.6686	0.0235		509.1615
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□**e**□ □□□	□□□□□□	□□□□□□**e**□ □□□	□□□□□□	□□□□□□	□□□□□□**e**□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		375.9297
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□**e**□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Mitigated Construction Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1491	0.1878	2.3530	6.7800e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		508.6686	508.6686	0.0235		509.1615
Total																

□idlin □ill□ □ro□ect □□□ □□on□tr□ction

□o□th □oa□t □ir □a□in□□□□ □er

□□□ □ro□ect □haracteri□tic□

□□□ □and □□a□e

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.00	1000sqft	3.90	3,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
User Defined Recreational	1.00	User Defined Unit	1.50	0.00	0
Single Family Housing	102.00	Dwelling Unit	20.80	357,000.00	306

□□□ □ther □ro□ect □haracteri□tic□

□r□ani□ation	Urban	**□ ind □peed □□ □□□**	2.2	**□recipitation □re□ □□a□□□**	31
□li□ ate □one	9			**□perational □ear**	2019
□tilit□ □o□ pan□	Southern California Edison				
□□□ □nten□it□ □l□M□ hr□	630.89	**□□□ □nten□it□ □l□M□ hr□**	0.029	**□□□ □nten□it□ □l□M□ hr□**	0.006

□□□ □□er □ntered □o□ □ent□ □ □on□□e□a□lt □ata

Project Characteristics -

Land Use - Floor area based on avg sf of 3,500 per DU (range of 2,700-4,300 sf); Pop. based on 3 residents/household in LA County; 3.9 acres for 2 H2O tanks/1 pump station; 1.5 acres for H2O quality basins; 11 acres streets (fire access & public).

Construction Phase - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Trips and VMT -

Grading - Acres disturbed: 37.2

Architectural Coating - Residential coating area based on 357,000 sf total floor area for 102 DUs; Non-residential coating for streets based on 6% of 11 acres per CalEEMod User's Guide, Appendix E (479160 * 0.06 = 28,750 sf).

Construction Off-road Equipment Mitigation - Tier 3 for Grading Phase Equipment; Water exposed area 3 times daily (61% reduction PM10 and PM2.5); Limit vehicle speeds to 15 mph on unpaved roads.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	241,080.00	28,750.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	723,240.00	0.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	55.00	586.00
tblConstructionPhase	NumDays	740.00	773.00
tblConstructionPhase	NumDays	75.00	180.00
tblConstructionPhase	NumDays	55.00	71.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	PhaseEndDate	5/12/2021	6/28/2019
tblConstructionPhase	PhaseEndDate	7/11/2019	6/28/2019
tblConstructionPhase	PhaseEndDate	4/24/2017	1/20/2017
tblConstructionPhase	PhaseEndDate	3/22/2017	1/31/2017
tblConstructionPhase	PhaseStartDate	6/29/2019	8/15/2017
tblConstructionPhase	PhaseStartDate	1/21/2017	1/9/2017
tblConstructionPhase	PhaseStartDate	2/1/2017	10/31/2016
tblConstructionPhase	PhaseStartDate	6/21/2016	5/2/2016
tblGrading	AcresOfGrading	450.00	37.20
tblLandUse	LandUseSquareFeet	183,600.00	357,000.00
tblLandUse	LotAcreage	0.07	3.90
tblLandUse	LotAcreage	0.00	1.50
tblLandUse	LotAcreage	33.12	20.80
tblLandUse	Population	292.00	306.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	WorkerTripNumber	33.00	28.00

□□□ □□ i□□ion□ □□□ □ ar□

□□□ □ □erall □on□tr□ction □Ma□i□ □□ □ail□ □□ i□□ion□

□n□ iti□ated □on□tr□ction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	10.7733	123.9211	75.0906	0.1137	6.5542	5.7047	12.2589	3.4169	5.2483	8.6652	0.0000	11,862.8947	11,862.8947	3.4571	0.0000	11,935.4946
2016	12.6218	135.8464	88.0489	0.1386	6.6995	6.7629	13.4624	3.4554	6.2775	9.7329	0.0000	14,164.0352	14,164.0352	3.8917	0.0000	14,245.7611
2017	10.8420	76.3404	73.3542	0.1315	3.7706	4.5268	8.0738	1.0110	4.2481	5.1998	0.0000	12,369.6378	12,369.6378	1.9893	0.0000	12,411.4122
2018	10.1848	35.5151	44.5415	0.0928	3.7706	1.9329	5.7035	1.0110	1.8244	2.8355	0.0000	8,234.3743	8,234.3743	0.8964	0.0000	8,253.1996
2019	9.6929	32.1754	42.5298	0.0926	3.7707	1.6724	5.4430	1.0110	1.5785	2.5895	0.0000	8,045.2152	8,045.2152	0.8718	0.0000	8,063.5233
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□	□□□□□□	□□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□	□□□□□□	□□□□□	□□□□□□□□□

Miti□ated □on□tr□ction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.6666	57.9464	67.4692	0.1137	2.7471	2.7183	5.4654	1.3832	2.6536	4.0368	0.0000	11,862.8947	11,862.8947	3.4571	0.0000	11,935.4946
2016	6.0659	78.0446	83.3331	0.1386	2.8924	4.1433	7.0357	1.4218	4.0202	5.4420	0.0000	14,164.0352	14,164.0352	3.8917	0.0000	14,245.7610
2017	10.8420	76.3404	73.3542	0.1315	3.7706	4.5268	8.0738	1.0110	4.2481	5.1998	0.0000	12,369.6378	12,369.6378	1.9893	0.0000	12,411.4122
2018	10.1848	35.5151	44.5415	0.0928	3.7706	1.9329	5.7035	1.0110	1.8244	2.8355	0.0000	8,234.3743	8,234.3743	0.8964	0.0000	8,253.1996
2019	9.6929	32.1754	42.5298	0.0926	3.7707	1.6724	5.4430	1.0110	1.5785	2.5895	0.0000	8,045.2152	8,045.2152	0.8718	0.0000	8,063.5233
□otal	□□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□□	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□□□□□

	□□G	□□□	□□	□□□	□□□iti□e □M□□	□□ha□□t □M□□	□M□□ □otal	□□□iti□e □M□□	□□ha□□t □M□□	□M□□ □otal	□io□□□□	□□io□□□	□otal □□□	□□□	□□□	□□□e
□ercent □ed□ction	□□□□	□□□□	□□□	□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□	□□□	□□□	□□□	□□□	□□□

□□ □on□tr□ction □etail

□on□tr□ction □ha□e

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/24/2015	6/20/2016	6	180	
2	Utilities	Trenching	5/2/2016	1/31/2017	6	236	
3	Streets	Paving	10/31/2016	1/20/2017	6	71	
4	Building Construction	Building Construction	1/9/2017	6/28/2019	6	773	
5	Architectural Coating	Architectural Coating	8/15/2017	6/28/2019	6	586	

□cre□ o□Gradin□ □Gradin□ □ha□e□□□□□□

□e□idential □ndoor□□□□□□□□□□□e□idential □ □tdoor□□□□□□□□□□□on□□e□idential □ndoor□□□□on□□e□idential □ □tdoor□□□□□□□□ □□rchitect□ral

□□□oad □□□ip□ent

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	3	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	3	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Utilities	Generator Sets	1	8.00	84	0.74
Utilities	Pumps	1	8.00	84	0.74
Utilities	Rough Terrain Forklifts	1	8.00	100	0.40
Utilities	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utilities	Trenchers	1	8.00	80	0.50
Streets	Pavers	2	8.00	125	0.42
Streets	Paving Equipment	2	8.00	130	0.36
Streets	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48

□rip□ and □M□

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	13	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streets	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	239.00	90.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

□□□ Miti□ation Mea□□re□ □on□tr□ction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

□□□ Gradin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.6442	123.7595	73.0849	0.1097		5.7019	5.7019		5.2457	5.2457		11,517.9258	11,517.9258	3.4386		11,590.1361
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1291	0.1616	2.0057	3.9700e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		344.9689	344.9689	0.0186		345.3586
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	3.5374	57.7848	65.4635	0.1097		2.7156	2.7156		2.6511	2.6511	0.0000	11,517.9258	11,517.9258	3.4386		11,590.1360
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1291	0.1616	2.0057	3.9700e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		344.9689	344.9689	0.0186		345.3586
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□ Gradin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.0340	115.0554	70.1404	0.1096		5.2811	5.2811		4.8586	4.8586		11,389.1097	11,389.1097	3.4354		11,461.2522
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1166	0.1458	1.8162	3.9700e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		333.0831	333.0831	0.0171		333.4417
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	3.4780	57.2536	65.4246	0.1096		2.6615	2.6615		2.6014	2.6014	0.0000	11,389.1097	11,389.1097	3.4354		11,461.2522
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1166	0.1458	1.8162	3.9700e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		333.0831	333.0831	0.0171		333.4417
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □tilitie□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153		2,287.1966	2,287.1966	0.4314		2,296.2549
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0541	0.0677	0.8432	1.8400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		154.6457	154.6457	7.9300e-003		154.8122
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□e□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153	0.0000	2,287.1966	2,287.1966	0.4314		2,296.2549
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0541	0.0677	0.8432	1.8400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		154.6457	154.6457	7.9300e-003		154.8122
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□e□ □□□		□□□□□□□□

□□□ □tilitie□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831		2,270.6316	2,270.6316	0.4181		2,279.4111
□otal	□□□□□□	□□□□□□□	□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.7275	148.7275	7.3200e-003		148.8811
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□e□ □□□		□□□□□□□□

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831	0.0000	2,270.6316	2,270.6316	0.4181		2,279.4111
Total																

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.7275	148.7275	7.3200e-003		148.8811
Total																

Street Cleaning

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total																

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□**e**□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□	□□□□□□	□□□□□**e**□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□**e**□ □□□		□□□□□□□□

□□□ □treet□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□**otal**	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□**e**□ □□□	□□□□□□	□□□□□□**e**□ □□□	□□□□□□	□□□□□□	□□□□□□**e**□ □□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□**e**□ □□□		□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□**otal**	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

□□□ □□ildin□ □on□tr□ction □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□ iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6891	7.1169	8.4429	0.0196	0.5626	0.1133	0.6759	0.1603	0.1042	0.2644		1,932.0044	1,932.0044	0.0136		1,932.2906
Worker	0.8945	1.1237	14.0301	0.0338	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,734.2975	2,734.2975	0.1345		2,737.1222
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
Total																

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6891	7.1169	8.4429	0.0196	0.5626	0.1133	0.6759	0.1603	0.1042	0.2644		1,932.0044	1,932.0044	0.0136		1,932.2906
Worker	0.8945	1.1237	14.0301	0.0338	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,734.2975	2,734.2975	0.1345		2,737.1222
Total																

Building Construction (2024)

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
Total																

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6464	6.5355	8.0439	0.0195	0.5627	0.1068	0.6694	0.1603	0.0982	0.2584		1,899.6064	1,899.6064	0.0135		1,899.8908
Worker	0.8064	1.0194	12.7477	0.0338	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,632.5553	2,632.5553	0.1249		2,635.1771
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6464	6.5355	8.0439	0.0195	0.5627	0.1068	0.6694	0.1603	0.0982	0.2584		1,899.6064	1,899.6064	0.0135		1,899.8908
Worker	0.8064	1.0194	12.7477	0.0338	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,632.5553	2,632.5553	0.1249		2,635.1771
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□□ □□ildin□ □on□tr□ction □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□		□□□□□	□□□□□		□□□□□	□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□		□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6123	6.0292	7.7417	0.0195	0.5627	0.1013	0.6640	0.1603	0.0932	0.2535		1,862.5909	1,862.5909	0.0133		1,862.8699
Worker	0.7422	0.9351	11.7158	0.0338	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,532.7458	2,532.7458	0.1169		2,535.1999
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□		□□□□□	□□□□□		□□□□□	□□□□□	□□□□□	□□□□□□□□□	□□□□□□□□□	□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6123	6.0292	7.7417	0.0195	0.5627	0.1013	0.6640	0.1603	0.0932	0.2535		1,862.5909	1,862.5909	0.0133		1,862.8699
Worker	0.7422	0.9351	11.7158	0.0338	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,532.7458	2,532.7458	0.1169		2,535.1999
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□		□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1796	0.2257	2.8178	6.8000e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		549.1476	549.1476	0.0270		549.7149
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1796	0.2257	2.8178	6.8000e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		549.1476	549.1476	0.0270		549.7149
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1620	0.2047	2.5602	6.7900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		528.7140	528.7140	0.0251		529.2406
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1620	0.2047	2.5602	6.7900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		528.7140	528.7140	0.0251		529.2406
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		375.9297
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1491	0.1878	2.3530	6.7800e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		508.6686	508.6686	0.0235		509.1615
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		375.9297
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1491	0.1878	2.3530	6.7800e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		508.6686	508.6686	0.0235		509.1615
Total																

□idlin □ill□ □ro□ect □□□ □□on□tr□ction

□o□th □oa□t □ir □a□in□□ inter

□□□ □ro□ect □haracteri□tic□

□□□ □and □□a□e

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.00	1000sqft	3.90	3,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
User Defined Recreational	1.00	User Defined Unit	1.50	0.00	0
Single Family Housing	102.00	Dwelling Unit	20.80	357,000.00	306

□□□ □ther □ro□ect □haracteri□tic□

□r□ani□ation	Urban	**□ ind □peed □□ □□□**	2.2	**□recipitation □re□ □□a□□□**	31
□li□ ate □one	9			**□perational □ear**	2019
□tilit□ □o□ pan□	Southern California Edison				
□□□ □nten□it□ □□M□ hr□	630.89	**□□□ □nten□it□ □□M□ hr□**	0.029	**□□□ □nten□it□ □□M□ hr□**	0.006

□□□ □□er □ntered □o□ □ent□ □ □on□□e□a□lt □ata

Project Characteristics -

Land Use - Floor area based on avg sf of 3,500 per DU (range of 2,700-4,300 sf); Pop. based on 3 residents/household in LA County; 3.9 acres for 2 H2O tanks/1 pump station; 1.5 acres for H2O quality basins; 11 acres streets (fire access & public).

Construction Phase - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Trips and VMT -

Grading - Acres disturbed: 37.2

Architectural Coating - Residential coating area based on 357,000 sf total floor area for 102 DUs; Non-residential coating for streets based on 6% of 11 acres per CalEEMod User's Guide, Appendix E (479160 * 0.06 = 28,750 sf).

Construction Off-road Equipment Mitigation - Water exposed area 3 times daily (61% reduction PM10 and PM2.5); Limit vehicle speeds to 15 mph on unpaved roads.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	241,080.00	28,750.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	723,240.00	0.00
tblConstructionPhase	NumDays	55.00	586.00
tblConstructionPhase	NumDays	740.00	773.00
tblConstructionPhase	NumDays	75.00	180.00
tblConstructionPhase	NumDays	55.00	71.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	5/12/2021	6/28/2019
tblConstructionPhase	PhaseEndDate	7/11/2019	6/28/2019
tblConstructionPhase	PhaseEndDate	4/24/2017	1/20/2017
tblConstructionPhase	PhaseEndDate	3/22/2017	1/31/2017
tblConstructionPhase	PhaseStartDate	6/29/2019	8/15/2017
tblConstructionPhase	PhaseStartDate	1/21/2017	1/9/2017
tblConstructionPhase	PhaseStartDate	2/1/2017	10/31/2016
tblConstructionPhase	PhaseStartDate	6/21/2016	5/2/2016
tblGrading	AcresOfGrading	450.00	37.20
tblLandUse	LandUseSquareFeet	183,600.00	357,000.00
tblLandUse	LotAcreage	0.07	3.90

tblLandUse	LotAcreage	0.00	1.50
tblLandUse	LotAcreage	33.12	20.80
tblLandUse	Population	292.00	306.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019

□□□ □□ i□□ion□ □□□ □ ar□

□□□ □ □erall □on□tr□ction □Ma□i□ □□ □ail□ □□ i□□ion□

□n□ iti□ated □on□tr□ction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	10.7764	123.9370	74.9400	0.1134	6.5542	5.7047	12.2589	3.4169	5.2483	8.6652	0.0000	11,841.5061	11,841.5061	3.4571	0.0000	11,914.1060
2016	12.6256	135.8674	87.8413	0.1382	6.6995	6.7629	13.4624	3.4554	6.2775	9.7329	0.0000	14,133.7413	14,133.7413	3.8917	0.0000	14,215.4672
2017	10.9271	76.6392	73.8639	0.1290	3.7706	4.5279	8.0749	1.0110	4.2491	5.2009	0.0000	12,163.2731	12,163.2731	1.9897	0.0000	12,205.0564
2018	10.2590	35.7927	45.0111	0.0901	3.7706	1.9339	5.7045	1.0110	1.8254	2.8364	0.0000	8,021.2070	8,021.2070	0.8969	0.0000	8,040.0414
2019	9.7606	32.4271	43.0487	0.0899	3.7707	1.6733	5.4440	1.0110	1.5793	2.5904	0.0000	7,839.2988	7,839.2988	0.8723	0.0000	7,857.6162
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□	□□□□□□	□□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□	□□□□□□	□□□□□	□□□□□□□□□

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	10.7764	123.9370	74.9400	0.1134	2.7471	5.7047	8.4517	1.3832	5.2483	6.6315	0.0000	11,841.5061	11,841.5061	3.4571	0.0000	11,914.1060
2016	12.6256	135.8674	87.8413	0.1382	2.8924	6.7629	9.6553	1.4218	6.2775	7.6992	0.0000	14,133.7413	14,133.7413	3.8917	0.0000	14,215.4672
2017	10.9271	76.6392	73.8639	0.1290	3.7706	4.5279	8.0749	1.0110	4.2491	5.2009	0.0000	12,163.2731	12,163.2731	1.9897	0.0000	12,205.0564
2018	10.2590	35.7927	45.0111	0.0901	3.7706	1.9339	5.7045	1.0110	1.8254	2.8364	0.0000	8,021.2070	8,021.2070	0.8969	0.0000	8,040.0414
2019	9.7606	32.4271	43.0487	0.0899	3.7707	1.6733	5.4440	1.0110	1.5793	2.5904	0.0000	7,839.2988	7,839.2988	0.8723	0.0000	7,857.6162
Total																

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction																

Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/24/2015	6/20/2016	6	180	
2	Utilities	Trenching	5/2/2016	1/31/2017	6	236	
3	Streets	Paving	10/31/2016	1/20/2017	6	71	
4	Building Construction	Building Construction	1/9/2017	6/28/2019	6	773	
5	Architectural Coating	Architectural Coating	8/15/2017	6/28/2019	6	586	

Acres of Grading (Site Preparation Phase):

Acres of Grading (Grading Phase):

Acres of Paving:

□e□idential □ndoor□□□□□□□□□e□idential □□tdoor□□□□□□□□□on□□e□idential □ndoor□□□□on□□e□idential □□tdoor□□□□□□□ □□rchitect□ral

□ □□□oad □□□ip□ ent

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	3	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	3	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Utilities	Generator Sets	1	8.00	84	0.74
Utilities	Pumps	1	8.00	84	0.74
Utilities	Rough Terrain Forklifts	1	8.00	100	0.40
Utilities	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utilities	Trenchers	1	8.00	80	0.50
Streets	Pavers	2	8.00	125	0.42
Streets	Paving Equipment	2	8.00	130	0.36
Streets	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48

□rip□ and □M□

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	11	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streets	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	239.00	90.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

□□□ Miti□ation Mea□□re□ □on□tr□ction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

□□□ Gradin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.6442	123.7595	73.0849	0.1097		5.7019	5.7019		5.2457	5.2457		11,517.9258	11,517.9258	3.4386		11,590.1361
□otal	□□□□□□□	□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1323	0.1776	1.8551	3.7200e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		323.5802	323.5802	0.0186		323.9699
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	10.6442	123.7595	73.0849	0.1097		5.7019	5.7019		5.2457	5.2457	0.0000	11,517.9258	11,517.9258	3.4386		11,590.1360
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□□□□ □□	□□□□□□□□ □	□□□□□		□□□□□□□□ □□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1323	0.1776	1.8551	3.7200e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		323.5802	323.5802	0.0186		323.9699
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ Gradin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.0340	115.0554	70.1404	0.1096		5.2811	5.2811		4.8586	4.8586		11,389.1097	11,389.1097	3.4354		11,461.2522
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1192	0.1601	1.6744	3.7200e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		312.3947	312.3947	0.0171		312.7532
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	10.0340	115.0554	70.1404	0.1096		5.2811	5.2811		4.8586	4.8586	0.0000	11,389.1097	11,389.1097	3.4354		11,461.2522
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1192	0.1601	1.6744	3.7200e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		312.3947	312.3947	0.0171		312.7532
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □tilitie□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153		2,287.1966	2,287.1966	0.4314		2,296.2549
□**otal**	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0744	0.7774	1.7300e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		145.0404	145.0404	7.9300e-003		145.2069
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153	0.0000	2,287.1966	2,287.1966	0.4314		2,296.2549
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0744	0.7774	1.7300e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		145.0404	145.0404	7.9300e-003		145.2069
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□e□□□		□□□□□□□□□

□□□ □tilitie□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831		2,270.6316	2,270.6316	0.4181		2,279.4111
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.4700	139.4700	7.3200e-003		139.6236
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□	□□□□□e□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□e□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831	0.0000	2,270.6316	2,270.6316	0.4181		2,279.4111
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.4700	139.4700	7.3200e-003		139.6236
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□	□□□□□e□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□e□□□		□□□□□□□□

□□□ □treet□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□e□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

□□ □treet□ □□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□ □	□□□□□□□□	□□□□□□		□□□□□□□□ □

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

□□ □□ildin□ □on□tr□ction □□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7527	7.2925	10.2292	0.0194	0.5626	0.1144	0.6770	0.1603	0.1052	0.2654		1,915.7748	1,915.7748	0.0141		1,916.0699
Worker	0.9124	1.2340	12.8873	0.0317	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,564.1016	2,564.1016	0.1345		2,566.9264
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7527	7.2925	10.2292	0.0194	0.5626	0.1144	0.6770	0.1603	0.1052	0.2654		1,915.7748	1,915.7748	0.0141		1,916.0699
Worker	0.9124	1.2340	12.8873	0.0317	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,564.1016	2,564.1016	0.1345		2,566.9264
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□□□ □□ildin□ □on□tr□ction □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7037	6.6933	9.8159	0.0194	0.5627	0.1078	0.6704	0.1603	0.0991	0.2594		1,883.6151	1,883.6151	0.0140		1,883.9087
Worker	0.8206	1.1192	11.6632	0.0317	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,468.3565	2,468.3565	0.1249		2,470.9782
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7037	6.6933	9.8159	0.0194	0.5627	0.1078	0.6704	0.1603	0.0991	0.2594		1,883.6151	1,883.6151	0.0140		1,883.9087
Worker	0.8206	1.1192	11.6632	0.0317	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,468.3565	2,468.3565	0.1249		2,470.9782
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□□□ □□ildin□ □on□tr□ction □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6652	6.1713	9.4934	0.0193	0.5627	0.1022	0.6649	0.1603	0.0940	0.2543		1,846.8390	1,846.8390	0.0137		1,847.1272
Worker	0.7546	1.0263	10.6891	0.0316	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,374.3858	2,374.3858	0.1169		2,376.8400
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6652	6.1713	9.4934	0.0193	0.5627	0.1022	0.6649	0.1603	0.0940	0.2543		1,846.8390	1,846.8390	0.0137		1,847.1272
Worker	0.7546	1.0263	10.6891	0.0316	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,374.3858	2,374.3858	0.1169		2,376.8400
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□	□□□□□		□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1832	0.2478	2.5883	6.3700e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		514.9660	514.9660	0.0270		515.5333
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□	□□□□□		□□□□□□□

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
Total																

Mitigated Construction Offsite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1832	0.2478	2.5883	6.3700e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		514.9660	514.9660	0.0270		515.5333
Total																

Unmitigated Architectural Coating

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total																

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1648	0.2248	2.3424	6.3600e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		495.7369	495.7369	0.0251		496.2634
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1648	0.2248	2.3424	6.3600e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		495.7369	495.7369	0.0251		496.2634
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		375.9297
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1515	0.2061	2.1468	6.3500e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		476.8641	476.8641	0.0235		477.3570
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		375.9297
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Mitigated Construction Onsite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1515	0.2061	2.1468	6.3500e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		476.8641	476.8641	0.0235		477.3570
Total																

□idlin □ill□ □ro□ect □□□ □□on□tr□ction

□o□th □oa□t □ir □a□in□□ inter

□□□ □ro□ect □haracteri□tic□

□□□ □and □□a□e

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.00	1000sqft	3.90	3,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
User Defined Recreational	1.00	User Defined Unit	1.50	0.00	0
Single Family Housing	102.00	Dwelling Unit	20.80	357,000.00	306

□□□ □ther □ro□ect □haracteri□tic□

□r□ani□ation	Urban	**□ ind □peed □□ □□□**	2.2	**□recipitation □re□ □□a□□□**	31
□li□ ate □one	9			**□perational □ear**	2019
□tilit□ □o□ pan□	Southern California Edison				
□□□ □nten□it□ □l□M□ hr□	630.89	**□□□ □nten□it□ □l□M□ hr□**	0.029	**□□□ □nten□it□ □l□M□ hr□**	0.006

□□□ □□er □ntered □o□ □ent□ □ □on□□e□a□lt □ata

Project Characteristics -

Land Use - Floor area based on avg sf of 3,500 per DU (range of 2,700-4,300 sf); Pop. based on 3 residents/household in LA County; 3.9 acres for 2 H2O tanks/1 pump station; 1.5 acres for H2O quality basins; 11 acres streets (fire access & public).

Construction Phase - Refer to "Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Off-road Equipment - Refer to "Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs" worksheet in Appendix.

Trips and VMT -

Grading - Acres disturbed: 37.2

Architectural Coating - Residential coating area based on 357,000 sf total floor area for 102 DUs; Non-residential coating for streets based on 6% of 11 acres per CalEEMod User's Guide, Appendix E (479160 * 0.06 = 28,750 sf).

Construction Off-road Equipment Mitigation - Tier 3 for Grading Phase Equipment; Water exposed area 3 times daily (61% reduction PM10 and PM2.5); Limit vehicle speeds to 15 mph on unpaved roads.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	241,080.00	28,750.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	723,240.00	0.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	55.00	586.00
tblConstructionPhase	NumDays	740.00	773.00
tblConstructionPhase	NumDays	75.00	180.00

tblConstructionPhase	NumDays	55.00	71.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	5/12/2021	6/28/2019
tblConstructionPhase	PhaseEndDate	7/11/2019	6/28/2019
tblConstructionPhase	PhaseEndDate	4/24/2017	1/20/2017
tblConstructionPhase	PhaseEndDate	3/22/2017	1/31/2017
tblConstructionPhase	PhaseStartDate	6/29/2019	8/15/2017
tblConstructionPhase	PhaseStartDate	1/21/2017	1/9/2017
tblConstructionPhase	PhaseStartDate	2/1/2017	10/31/2016
tblConstructionPhase	PhaseStartDate	6/21/2016	5/2/2016
tblGrading	AcresOfGrading	450.00	37.20
tblLandUse	LandUseSquareFeet	183,600.00	357,000.00
tblLandUse	LotAcreage	0.07	3.90
tblLandUse	LotAcreage	0.00	1.50
tblLandUse	LotAcreage	33.12	20.80
tblLandUse	Population	292.00	306.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	WorkerTripNumber	33.00	28.00

□□□ □□ i□□ion□ □□□ □ ar□

□□□ □ □erall □on□tr□ction □Ma□i□ □□ □ail□ □□ i□□ion□

□n□ iti□ated □on□tr□ction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	10.7764	123.9370	74.9400	0.1134	6.5542	5.7047	12.2589	3.4169	5.2483	8.6652	0.0000	11,841.5061	11,841.5061	3.4571	0.0000	11,914.1060
2016	12.6256	135.8674	87.8413	0.1382	6.6995	6.7629	13.4624	3.4554	6.2775	9.7329	0.0000	14,133.7413	14,133.7413	3.8917	0.0000	14,215.4672
2017	10.9271	76.6392	73.8639	0.1290	3.7706	4.5279	8.0749	1.0110	4.2491	5.2009	0.0000	12,163.2731	12,163.2731	1.9897	0.0000	12,205.0564
2018	10.2590	35.7927	45.0111	0.0901	3.7706	1.9339	5.7045	1.0110	1.8254	2.8364	0.0000	8,021.2070	8,021.2070	0.8969	0.0000	8,040.0414
2019	9.7606	32.4271	43.0487	0.0899	3.7707	1.6733	5.4440	1.0110	1.5793	2.5904	0.0000	7,839.2988	7,839.2988	0.8723	0.0000	7,857.6162
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□	□□□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□□	□□□□□	□□□□□□□□□□

Miti□ated □on□tr□ction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.6697	57.9624	67.3187	0.1134	2.7471	2.7183	5.4654	1.3832	2.6536	4.0368	0.0000	11,841.5061	11,841.5061	3.4571	0.0000	11,914.1060
2016	6.0697	78.0656	83.1255	0.1382	2.8924	4.1433	7.0357	1.4218	4.0202	5.4420	0.0000	14,133.7413	14,133.7413	3.8917	0.0000	14,215.4672
2017	10.9271	76.6392	73.8639	0.1290	3.7706	4.5279	8.0749	1.0110	4.2491	5.2009	0.0000	12,163.2731	12,163.2731	1.9897	0.0000	12,205.0564
2018	10.2590	35.7927	45.0111	0.0901	3.7706	1.9339	5.7045	1.0110	1.8254	2.8364	0.0000	8,021.2070	8,021.2070	0.8969	0.0000	8,040.0414
2019	9.7606	32.4271	43.0487	0.0899	3.7707	1.6733	5.4440	1.0110	1.5793	2.5904	0.0000	7,839.2988	7,839.2988	0.8723	0.0000	7,857.6162
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□	□□□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□□	□□□□□	□□□□□□□□□□

	□□G	□□□	□□	□□□	□□□iti□e □M□□	□□ha□□t □M□□	□M□□ □otal	□□□iti□e □M□□□	□□ha□□t □M□□□	□M□□□ □otal	□io□□□□	□□io□□□□	□otal □□□	□□□	□□□	□□□e
□ercent □ed□ction	□□□□□	□□□□□	□□□□	□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□

□□□ □on□tr□ction □etail

□on□tr□ction □ha□e

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/24/2015	6/20/2016	6	180	
2	Utilities	Trenching	5/2/2016	1/31/2017	6	236	
3	Streets	Paving	10/31/2016	1/20/2017	6	71	
4	Building Construction	Building Construction	1/9/2017	6/28/2019	6	773	
5	Architectural Coating	Architectural Coating	8/15/2017	6/28/2019	6	586	

□cre□o□Gradin□ □□ite □reparation □ha□e□□□

□cre□o□Gradin□ □Gradin□ □ha□e□□□□□□

□cre□o□□a□in□□□

□e□idential □ndoor□□□□□□□□□□e□idential □ □tdoor□□□□□□□□□□on□□e□idential □ndoor□□□□on□□e□idential □ □tdoor□□□□□□□ □□rchitect□ral

□ □□□oad □□□ip□ ent

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	3	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	3	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Utilities	Generator Sets	1	8.00	84	0.74
Utilities	Pumps	1	8.00	84	0.74
Utilities	Rough Terrain Forklifts	1	8.00	100	0.40
Utilities	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utilities	Trenchers	1	8.00	80	0.50
Streets	Pavers	2	8.00	125	0.42
Streets	Paving Equipment	2	8.00	130	0.36
Streets	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48

□rip□ and □M□

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	13	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streets	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	239.00	90.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

□□□ Miti□ation Mea□□re□ □on□tr□ction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

□□□ Gradin□ □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.6442	123.7595	73.0849	0.1097		5.7019	5.7019		5.2457	5.2457		11,517.9258	11,517.9258	3.4386		11,590.1361
□otal	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□ iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1323	0.1776	1.8551	3.7200e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		323.5802	323.5802	0.0186		323.9699
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	3.5374	57.7848	65.4635	0.1097		2.7156	2.7156		2.6511	2.6511	0.0000	11,517.9258	11,517.9258	3.4386		11,590.1360
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □□	□□□□□□□□□□ □	□□□□□□		□□□□□□□□□□ □□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1323	0.1776	1.8551	3.7200e-003	0.3130	2.7500e-003	0.3157	0.0830	2.5200e-003	0.0855		323.5802	323.5802	0.0186		323.9699
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ Gradin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2413	0.0000	6.2413	3.3339	0.0000	3.3339			0.0000			0.0000
Off-Road	10.0340	115.0554	70.1404	0.1096		5.2811	5.2811		4.8586	4.8586		11,389.1097	11,389.1097	3.4354		11,461.2522
□**otal**	□□□□□□□	□□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1192	0.1601	1.6744	3.7200e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		312.3947	312.3947	0.0171		312.7532
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4341	0.0000	2.4341	1.3002	0.0000	1.3002			0.0000			0.0000
Off-Road	3.4780	57.2536	65.4246	0.1096		2.6615	2.6615		2.6014	2.6014	0.0000	11,389.1097	11,389.1097	3.4354		11,461.2522
□**otal**	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1192	0.1601	1.6744	3.7200e-003	0.3130	2.6200e-003	0.3156	0.0830	2.4100e-003	0.0854		312.3947	312.3947	0.0171		312.7532
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□ □tilitie□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153		2,287.1966	2,287.1966	0.4314		2,296.2549
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0744	0.7774	1.7300e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		145.0404	145.0404	7.9300e-003		145.2069
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4171	20.5775	15.2492	0.0232		1.4780	1.4780		1.4153	1.4153	0.0000	2,287.1966	2,287.1966	0.4314		2,296.2549
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0744	0.7774	1.7300e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		145.0404	145.0404	7.9300e-003		145.2069
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□□

□□□ □tilitie□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831		2,270.6316	2,270.6316	0.4181		2,279.4111
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.4700	139.4700	7.3200e-003		139.6236
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2139	19.1630	15.1391	0.0232		1.3412	1.3412		1.2831	1.2831	0.0000	2,270.6316	2,270.6316	0.4181		2,279.4111
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.4700	139.4700	7.3200e-003		139.6236
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□□□		□□□□□□□□

□□□ □treet□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□	□□□□□e□□□	□□□□□□	□□□□□□	□□□□□e□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□e□□□		□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□□□		□□□□□□□□

□□□ □treet□ □□□□□

□n□ iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□□□	□□□□□□□□□□□□	□□□□□□		□□□□□□□□□□□□

□n□ iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4059					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□ □	□□□□□□□□	□□□□□□		□□□□□□□□ □

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□e□ □□□		□□□□□□□□

□□ □□ildin□ □on□tr□ction □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7527	7.2925	10.2292	0.0194	0.5626	0.1144	0.6770	0.1603	0.1052	0.2654		1,915.7748	1,915.7748	0.0141		1,916.0699
Worker	0.9124	1.2340	12.8873	0.0317	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,564.1016	2,564.1016	0.1345		2,566.9264
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□ □	□□□□□□□□□	□□□□□□		□□□□□□□□□ □

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7527	7.2925	10.2292	0.0194	0.5626	0.1144	0.6770	0.1603	0.1052	0.2654		1,915.7748	1,915.7748	0.0141		1,916.0699
Worker	0.9124	1.2340	12.8873	0.0317	2.6715	0.0215	2.6929	0.7085	0.0198	0.7283		2,564.1016	2,564.1016	0.1345		2,566.9264
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□□□ □□ildin□ □on□tr□ction □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7037	6.6933	9.8159	0.0194	0.5627	0.1078	0.6704	0.1603	0.0991	0.2594		1,883.6151	1,883.6151	0.0140		1,883.9087
Worker	0.8206	1.1192	11.6632	0.0317	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,468.3565	2,468.3565	0.1249		2,470.9782
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7037	6.6933	9.8159	0.0194	0.5627	0.1078	0.6704	0.1603	0.0991	0.2594		1,883.6151	1,883.6151	0.0140		1,883.9087
Worker	0.8206	1.1192	11.6632	0.0317	2.6715	0.0209	2.6924	0.7085	0.0194	0.7278		2,468.3565	2,468.3565	0.1249		2,470.9782
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□□ □ □ildin□ □on□tr□ction □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6652	6.1713	9.4934	0.0193	0.5627	0.1022	0.6649	0.1603	0.0940	0.2543		1,846.8390	1,846.8390	0.0137		1,847.1272
Worker	0.7546	1.0263	10.6891	0.0316	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,374.3858	2,374.3858	0.1169		2,376.8400
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623
□otal	□□□□□□	□□□□□□□	□□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6652	6.1713	9.4934	0.0193	0.5627	0.1022	0.6649	0.1603	0.0940	0.2543		1,846.8390	1,846.8390	0.0137		1,847.1272
Worker	0.7546	1.0263	10.6891	0.0316	2.6715	0.0206	2.6920	0.7085	0.0191	0.7275		2,374.3858	2,374.3858	0.1169		2,376.8400
□otal	□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□		□□□□□□□□□□	□□□□□□□□□□	□□□□□□		□□□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□□	□□□□□□□□□	□□□□□□		□□□□□□□□□

□n□ iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1832	0.2478	2.5883	6.3700e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		514.9660	514.9660	0.0270		515.5333
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1832	0.2478	2.5883	6.3700e-003	0.5365	4.3200e-003	0.5408	0.1423	3.9800e-003	0.1463		514.9660	514.9660	0.0270		515.5333
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1648	0.2248	2.3424	6.3600e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		495.7369	495.7369	0.0251		496.2634
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□e□□□	□□□□□□	□□□□□□	□□□□□□e□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1648	0.2248	2.3424	6.3600e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8900e-003	0.1462		495.7369	495.7369	0.0251		496.2634
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□□□ □rchitect□ral □oatin□ □□□□□

□n□iti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		375.9297
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□n□iti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1515	0.2061	2.1468	6.3500e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		476.8641	476.8641	0.0235		477.3570
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □n□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		375.9297
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

Miti□ated □on□tr□ction □ □□□□ite

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1515	0.2061	2.1468	6.3500e-003	0.5365	4.1300e-003	0.5407	0.1423	3.8300e-003	0.1461		476.8641	476.8641	0.0235		477.3570
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□e□ □□□	□□□□□□	□□□□□□	□□□□□□e□ □□□	□□□□□□		□□□□□□□□	□□□□□□□□	□□□□□□		□□□□□□□□

□idlin □ill□ □ro□ect □□□ □□on□tr□ction

□o□th □oa□t □ir □a□in□Miti□ation □eport

□on□tr□ction Miti□ation □□□ □ ar□

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.65	0.51	0.07	0.00	0.50	0.47	0.00	0.00	0.00	0.00	0.00	0.00
Streets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

□□□□□□ □□□ip□ent Miti□ation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	Tier 3	3	3	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	Tier 3	1	1	No Change	0.00
Off-Highway Trucks	Diesel	Tier 3	3	3	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Pumps	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rough Terrain Forklifts	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 3	1	1	No Change	0.00
Scrapers	Diesel	Tier 3	2	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	7	No Change	0.00
Trenchers	Diesel	No Change	0	1	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.16030E-001	7.80310E-001	7.24150E-001	1.16000E-003	5.83900E-002	5.83900E-002	0.00000E+000	9.97472E+001	9.97472E+001	9.42000E-003	0.00000E+000	9.99449E+001
Cranes	2.24500E-001	2.67390E+000	9.80590E-001	2.18000E-003	1.16860E-001	1.07510E-001	0.00000E+000	1.99803E+002	1.99803E+002	6.20100E-002	0.00000E+000	2.01105E+002
Excavators	1.06210E-001	1.21781E+000	9.26210E-001	1.43000E-003	5.99600E-002	5.51600E-002	0.00000E+000	1.34950E+002	1.34950E+002	4.06300E-002	0.00000E+000	1.35803E+002
Forklifts	2.17410E-001	1.90749E+000	1.41787E+000	1.77000E-003	1.53720E-001	1.41420E-001	0.00000E+000	1.62277E+002	1.62277E+002	5.03600E-002	0.00000E+000	1.63334E+002
Generator Sets	2.75030E-001	2.18335E+000	1.89885E+000	3.32000E-003	1.43830E-001	1.43830E-001	0.00000E+000	2.85147E+002	2.85147E+002	2.21600E-002	0.00000E+000	2.85613E+002
Graders	9.24000E-002	9.42240E-001	4.44350E-001	5.60000E-004	5.29400E-002	4.87100E-002	0.00000E+000	5.31365E+001	5.31365E+001	1.60000E-002	0.00000E+000	5.34725E+001
Off-Highway Trucks	2.58720E-001	2.99371E+000	1.38467E+000	3.55000E-003	1.13230E-001	1.04170E-001	0.00000E+000	3.35515E+002	3.35515E+002	1.01010E-001	0.00000E+000	3.37636E+002
Pavers	2.77800E-002	3.12220E-001	2.02230E-001	3.20000E-004	1.54800E-002	1.42400E-002	0.00000E+000	3.01019E+001	3.01019E+001	9.11000E-003	0.00000E+000	3.02933E+001
Paving Equipment	2.13800E-002	2.47300E-001	1.80460E-001	2.80000E-004	1.22900E-002	1.13100E-002	0.00000E+000	2.67410E+001	2.67410E+001	8.10000E-003	0.00000E+000	2.69110E+001
Pumps	7.80000E-002	5.74390E-001	4.55350E-001	7.80000E-004	4.15000E-002	4.15000E-002	0.00000E+000	6.66945E+001	6.66945E+001	6.38000E-003	0.00000E+000	6.68284E+001
Rollers	2.34700E-002	2.17410E-001	1.42570E-001	1.90000E-004	1.59500E-002	1.46800E-002	0.00000E+000	1.74838E+001	1.74838E+001	5.29000E-003	0.00000E+000	1.75950E+001
Rough Terrain Forklifts	2.48300E-002	3.15800E-001	2.77960E-001	4.10000E-004	1.74500E-002	1.60600E-002	0.00000E+000	3.82279E+001	3.82279E+001	1.15500E-002	0.00000E+000	3.84705E+001
Rubber Tired Dozers	1.12020E-001	1.25688E+000	9.51750E-001	8.00000E-004	5.85100E-002	5.38300E-002	0.00000E+000	7.55523E+001	7.55523E+001	2.27500E-002	0.00000E+000	7.60299E+001
Scrapers	2.50850E-001	3.20033E+000	2.00218E+000	2.68000E-003	1.29040E-001	1.18720E-001	0.00000E+000	2.53204E+002	2.53204E+002	7.62300E-002	0.00000E+000	2.54805E+002
Tractors/Loaders/Backhoes	4.56940E-001	4.44071E+000	3.66428E+000	4.81000E-003	3.26440E-001	3.00320E-001	0.00000E+000	4.44229E+002	4.44229E+002	1.36840E-001	0.00000E+000	4.47103E+002
Trenchers	6.53500E-002	5.72530E-001	3.31820E-001	4.10000E-004	4.49000E-002	4.13100E-002	0.00000E+000	3.84420E+001	3.84420E+001	1.16200E-002	0.00000E+000	3.86860E+001
Welders	1.75430E-001	6.54620E-001	7.22730E-001	9.90000E-004	4.49900E-002	4.49900E-002	0.00000E+000	7.27473E+001	7.27473E+001	1.43100E-002	0.00000E+000	7.30477E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.16030E-001	7.80310E-001	7.24150E-001	1.16000E-003	5.83900E-002	5.83900E-002	0.00000E+000	9.97471E+001	9.97471E+001	9.42000E-003	0.00000E+000	9.99448E+001
Cranes	2.24500E-001	2.67390E+000	9.80590E-001	2.18000E-003	1.16860E-001	1.07510E-001	0.00000E+000	1.99803E+002	1.99803E+002	6.20100E-002	0.00000E+000	2.01105E+002
Excavators	3.51800E-002	6.80100E-001	1.08465E+000	1.43000E-003	3.28300E-002	3.28300E-002	0.00000E+000	1.34950E+002	1.34950E+002	4.06300E-002	0.00000E+000	1.35803E+002
Forklifts	2.17410E-001	1.90748E+000	1.41787E+000	1.77000E-003	1.53720E-001	1.41420E-001	0.00000E+000	1.62276E+002	1.62276E+002	5.03600E-002	0.00000E+000	1.63334E+002
Generator Sets	2.75030E-001	2.18334E+000	1.89884E+000	3.32000E-003	1.43830E-001	1.43830E-001	0.00000E+000	2.85147E+002	2.85147E+002	2.21600E-002	0.00000E+000	2.85612E+002
Graders	1.35900E-002	2.62720E-001	4.18990E-001	5.60000E-004	1.26800E-002	1.26800E-002	0.00000E+000	5.31365E+001	5.31365E+001	1.60000E-002	0.00000E+000	5.34724E+001
Off-Highway Trucks	8.68600E-002	1.67926E+000	1.88193E+000	3.55000E-003	6.37000E-002	6.37000E-002	0.00000E+000	3.35514E+002	3.35514E+002	1.01010E-001	0.00000E+000	3.37636E+002
Pavers	2.77800E-002	3.12220E-001	2.02230E-001	3.20000E-004	1.54800E-002	1.42400E-002	0.00000E+000	3.01019E+001	3.01019E+001	9.11000E-003	0.00000E+000	3.02933E+001
Paving Equipment	2.13800E-002	2.47300E-001	1.80460E-001	2.80000E-004	1.22900E-002	1.13100E-002	0.00000E+000	2.67410E+001	2.67410E+001	8.10000E-003	0.00000E+000	2.69110E+001
Pumps	7.80000E-002	5.74390E-001	4.55350E-001	7.80000E-004	4.15000E-002	4.15000E-002	0.00000E+000	6.66944E+001	6.66944E+001	6.38000E-003	0.00000E+000	6.68283E+001
Rollers	2.34700E-002	2.17410E-001	1.42570E-001	1.90000E-004	1.59500E-002	1.46800E-002	0.00000E+000	1.74838E+001	1.74838E+001	5.29000E-003	0.00000E+000	1.75950E+001
Rough Terrain Forklifts	2.48300E-002	3.15800E-001	2.77960E-001	4.10000E-004	1.74500E-002	1.60600E-002	0.00000E+000	3.82279E+001	3.82279E+001	1.15500E-002	0.00000E+000	3.84704E+001
Rubber Tired Dozers	1.94300E-002	3.75620E-001	4.20960E-001	8.00000E-004	1.42500E-002	1.42500E-002	0.00000E+000	7.55522E+001	7.55522E+001	2.27500E-002	0.00000E+000	7.60298E+001
Scrapers	6.60100E-002	1.27624E+000	1.43027E+000	2.68000E-003	4.84100E-002	4.84100E-002	0.00000E+000	2.53204E+002	2.53204E+002	7.62300E-002	0.00000E+000	2.54805E+002
Tractors/Loaders/Backhoes	4.56930E-001	4.44070E+000	3.66427E+000	4.81000E-003	3.26440E-001	3.00320E-001	0.00000E+000	4.44229E+002	4.44229E+002	1.36840E-001	0.00000E+000	4.47103E+002
Trenchers	6.53500E-002	5.72530E-001	3.31820E-001	4.10000E-004	4.49000E-002	4.13100E-002	0.00000E+000	3.84420E+001	3.84420E+001	1.16200E-002	0.00000E+000	3.86859E+001
Welders	1.75430E-001	6.54620E-001	7.22730E-001	9.90000E-004	4.49900E-002	4.49900E-002	0.00000E+000	7.27472E+001	7.27472E+001	1.43100E-002	0.00000E+000	7.30476E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20304E-006	1.20304E-006	0.00000E+000	0.00000E+000	1.10061E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15113E-006	1.15113E-006	0.00000E+000	0.00000E+000	1.19340E-006
Excavators	6.68769E-001	4.41538E-001	-1.71063E-001	0.00000E+000	4.52468E-001	4.04822E-001	0.00000E+000	1.18562E-006	1.18562E-006	0.00000E+000	0.00000E+000	1.17818E-006
Forklifts	0.00000E+000	5.24249E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17084E-006	1.17084E-006	0.00000E+000	0.00000E+000	1.16326E-006
Generator Sets	0.00000E+000	4.58012E-006	5.26635E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19237E-006	1.19237E-006	0.00000E+000	0.00000E+000	1.19042E-006
Graders	8.52922E-001	7.21175E-001	5.70721E-002	0.00000E+000	7.60484E-001	7.39684E-001	0.00000E+000	1.31736E-006	1.31736E-006	0.00000E+000	0.00000E+000	1.12207E-006
Off-Highway Trucks	6.64270E-001	4.39071E-001	-3.59118E-001	0.00000E+000	4.37428E-001	3.88500E-001	0.00000E+000	1.16239E-006	1.16239E-006	0.00000E+000	0.00000E+000	1.21433E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.32882E-006	1.32882E-006	0.00000E+000	0.00000E+000	1.32042E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.12187E-006	1.12187E-006	0.00000E+000	0.00000E+000	1.48638E-006
Pumps	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19950E-006	1.19950E-006	0.00000E+000	0.00000E+000	1.19710E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14392E-006	1.14392E-006	0.00000E+000	0.00000E+000	1.13669E-006
Rough Terrain Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.30794E-006	1.30794E-006	0.00000E+000	0.00000E+000	1.29970E-006
Rubber Tired Dozers	8.26549E-001	7.01149E-001	5.57699E-001	0.00000E+000	7.56452E-001	7.35278E-001	0.00000E+000	1.19123E-006	1.19123E-006	0.00000E+000	0.00000E+000	1.31527E-006
Scrapers	7.36855E-001	6.01216E-001	2.85644E-001	0.00000E+000	6.24845E-001	5.92234E-001	0.00000E+000	1.18481E-006	1.18481E-006	0.00000E+000	0.00000E+000	1.17737E-006
Tractors/Loaders/Backhoes	2.18847E-005	2.25189E-006	2.72905E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19308E-006	1.19308E-006	0.00000E+000	0.00000E+000	1.18541E-006
Trenchers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.04053E-006	1.04053E-006	0.00000E+000	0.00000E+000	1.29246E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.09970E-006	1.09970E-006	0.00000E+000	0.00000E+000	1.23207E-006

□□□iti□e □□□t Miti□ation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction	61.00	Frequency (per day)	3.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
Yes	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.15	0.04	0.15	0.04	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	1.23	0.33	1.23	0.33	0.00	0.00
Grading	Fugitive Dust	1.12	0.60	0.44	0.23	0.61	0.61
Grading	Roads	0.03	0.01	0.03	0.01	0.00	0.00
Streets	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Streets	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Utilities	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Utilities	Roads	0.02	0.00	0.02	0.00	0.00	0.00

Aidlin Hills Project
Draft EIR
Air Quality Assessment

Summary of Fugitive Dust Emissions by Equipment for Grading Phase

Equipment Type	Fugitive PM10 (lb/day)	Fugitive PM2.5 (lb/day)
Excavators	0.93	0.14
Graders	0.15	0.02
Scrapers	0.15	0.02
Rubber Tired Dozers	2.35	1.29
Tractors/Loaders/Backhoes	0.76	0.11
Off-Highway Trucks	0.54	0.08
Mitigated TOTAL	***4.34***	***1.58***

Aidlin Hills Project
Draft EIR
Air Quality Assessment

Soil Excavation and Handling Equipment - Fugitive Dust Calculations

□□ i□□ion □actor □□□ation

$$E = k(0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

□ **here**□
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s) (miles per hour [mph])
M = material moisture content (%)

Source: AP-42 13.2.4-3, Equation (1)

□□□□□ption□

□□□ation □ara□eter□	□al□e	□nit□	□ote□
k (dimensionless) - PM10	0.35	-	AP-42, Chapter 13.2.4, Page 4. Nov 2006
k (dimensionless) - PM2.5	0.053	-	AP-42, Chapter 13.2.4, Page 4. Nov 2006
U (mean wind speed)	7.85	mph	SCAQMD Santa Clarita Meteorological Monitoring Station (2008-2012), average wind speed from 7AM-6PM
M (material moisture content)	12	%	AP-42 Chapter 11.9-9. Table 11.9-3. Default value for truck loading.
□□□□□ **ption**□			
Silt Content	6.9	%	AP-42, Chapter 11.9, Table 11.9-3. Default Silt Content.
Hours per Day	8	hours	Total active work hours in a day
Soil Density	1.264	ton/CY	CalEEMod Appendix A, pg. 11. Bulk density.
Mitigation (% Reduction)	61	%	Apply water 3x daily: http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html
Times Soil is Handled	3	times	Assumes 3x handling. Excavation to truck, truck to stockpile, stockpile to truck.

□□□ip□ent □□ed □or □□ca□ation □cti□itie□

Equipment Type	Duration (days)	□ail□ □□tp□t □□□□	□o□o□ □ehicle□	Max Daily (CY)	Max Hourly (CY)	Total (CY)
Excavators	180	1,280	3	3,840	480.0	691,200
Tractors/Loaders/Backhoes	180	1,040	3	3,120	390.0	561,600
Off-Highway Trucks	180	739	3	2,217	277.1	399,060
						1,651,860

□□ i□□ion□ □alc□lation □□M□□□

□o□rl□

Equipment Type	□o□rl□ □□	□o□rl□ □ton□□	□□□ation □ara□eter□ □□M□□□	□ □□ph□	M □□ □	□□ □l□□ton□	Miti□ation □□ □	□M□□ □□ i□□ion□ □l□□hr□
Excavators	480.0	607	0.35	7.85	12	1.64E-04	61	□□□□
Tractors/Loaders/Backhoes	390.0	493	0.35	7.85	12	1.64E-04	61	□□□□
Off-Highway Trucks	277.1	350	0.35	7.85	12	1.64E-04	61	□□□□

□nn□al

Equipment Type	□nn□al □□	□nn□al □ton□□	□□□ation □ara□eter□ □□M□□□	□ □□ph□	M □□ □	□□ □l□□ton□	Miti□ation □□ □	□M□□ □□ i□□ion□ □l□□□ear□
Excavators	691,200	873,792	0.35	7.85	12	1.64E-04	61	□□□□□□
Tractors/Loaders/Backhoes	561,600	709,956	0.35	7.85	12	1.64E-04	61	□□□□□□
Off-Highway Trucks	399,060	504,478	0.35	7.85	12	1.64E-04	61	□□□□□

□ail□

Equipment Type	□ail□ □□	□ail□ □ton□□	□□□ation □ara□eter□ □□M□□□	□ □□ph□	M □□ □	□□ □l□□ton□	Miti□ation □□ □	□M□□ □□ i□□ion□ □l□□da□□
Excavators	3,840	4,854	0.35	7.85	12	1.64E-04	61	□□□□
Tractors/Loaders/Backhoes	3,120	3,944	0.35	7.85	12	1.64E-04	61	□□□□
Off-Highway Trucks	2,217	2,803	0.35	7.85	12	1.64E-04	61	□□□□

Notes:
1) USEPA AP-42, Fifth Edition, Volume 1 Chapter 13: Miscellaneous
2) USEPA AP-42 Equation 13.2.4-3, Aerodynamic Particle Size Multiplier for

□□ i□□ion□ □alc□lation □□M□□□

□o□rl□

Equipment Type	□o□rl□ □□	□o□rl□ □ton□□	□□□ation □ara□eter□ □□M□□□	□ □□ph□	M □□ □	□□ □l□□ton□	Miti□ation □□ □	□M□□ □□ i□□ion□ □l□□hr□
Excavators	480.0	607	0.053	7.85	12	2.48E-05	61	□□□□
Tractors/Loaders/Backhoes	390.0	493	0.053	7.85	12	2.48E-05	61	□□□□
Off-Highway Trucks	277.1	350	0.053	7.85	12	2.48E-05	61	□□□□

□nn□al

Equipment Type	□nn□al □□	□nn□al □ton□□	□□□ation □ara□eter□ □□M□□□	□ □□ph□	M □□ □	□□ □l□□ton□	Miti□ation □□ □	□M□□ □□ i□□ion□ □l□□□ear□
Excavators	691,200	873,792	0.053	7.85	12	2.48E-05	61	□□□□□□
Tractors/Loaders/Backhoes	561,600	709,956	0.053	7.85	12	2.48E-05	61	□□□□□□
Off-Highway Trucks	399,060	504,478	0.053	7.85	12	2.48E-05	61	□□□□□□

□ail□

Equipment Type	□ail□ □□	□ail□ □ton□□	□□□ation □ara□eter□ □□M□□□	□ □□ph□	M □□ □	□□ □l□□ton□	Miti□ation □□ □	□M□□ □□ i□□ion□ □l□□da□□
Excavators	3,840	4,854	0.053	7.85	12	2.48E-05	61	□□□□
Tractors/Loaders/Backhoes	3,120	3,944	0.053	7.85	12	2.48E-05	61	□□□□
Off-Highway Trucks	2,217	2,803	0.053	7.85	12	2.48E-05	61	□□□□

Aidlin Hills Project
Draft EIR
Air Quality Assessment

Grading Equipment - Fugitive Dust Calculations

□□i□ion □actor □□□ation

Grading

EF_{PM10} (lb/VMT) = F_{PM10} x 0.051 $(S)^{2.0}$

$EF_{PM2.5}$ (lb/VMT) = $F_{PM2.5}$ x 0.04 $(S)^{2.5}$

□ **here**□
F_{PM10} = PM10 scaling factor
$F_{PM2.5}$ = PM2.5 scaling factor
S = mean vehicle speed (mph)

Source: AP-42 11.9-5. Table 11.9.1 (English Units). October 1998.

□□□□□ption□

□□□ation □ara□eter□	□al□e	□nit□	□ote□
F (scaling factor) - Grading, PM10	0.6	-	AP-42 Chapter 11.9-5, Table 11.9-1. PM10 scaling factor.
F (scaling factor) - Grading, PM2.5	0.031	-	AP-42 Chapter 11.9-5, Table 11.9-1. PM2.5 scaling factor.
S (mean vehicle speed)	7.1	mph	AP-42 Chapter 11.9-9, Table 11.9-3. Default grader speed.

□□□□□ption□			
Hours per Day	8	hours	Total active work hours in a day
Mitigation (% Reduction)	61	%	Apply water 3x daily: http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html
Total Grubbing/Grading Area	1,424,412	ft^2	37.2 acres disturbed.
Grading Equipment Blade Width	12	ft^2	Caterpillar 140M Grader Blade Width. CalEEMod default value. http://xml.catmms.com/servlet/ImageServlet?imageId=C617805
Grader Passes Required	2	passes	Assumed number of times grader will pass over an area for grubbing/grading.
Max Grading Area Per Day	15,827	ft^2	Assumed two passes of the total acreage over the 180-day phase length

□□□ip□ent □□ed □or Gradin□ □cti□itie□

Equipment Type	Total Grubbing Area (ft^2)	Average Daily Grubbing Area (ft^2)	Average Hourly Grubbing Area (ft^2)	Hours of Operation per Day	Duration (days)
Graders	1,424,412	15,827	1,978	8	180
Scrapers	1,424,412	15,827	1,978	8	180

□□i□ion □□alc□lation □□M□□□

□o□rl□

Equipment Type	Average Hourly Grubbing Area (ft^2)	Duration (days)	Max Hourly Grader VMT (mi.)	F (scaling factor) - Grading PM10	S (mph)	Grading Emission Factor (lb/VMT)	Miti□ation □□ □	Grading Emissions (lbs/hr)
Graders	1,978	180	0.03	0.6	7.1	1.5	61	0.019
Scrapers	1,978	180	0.03	0.6	7.1	1.5	61	0.019

□nn□al

Equipment Type	Total Grubbing Area (ft^2)	Duration (days)	Annual Grader VMT (mi.)	F (scaling factor) - Grading PM10	S (mph)	Grading Emission Factor (lb/VMT)	Miti□ation □□ □	Grading Emissions (lbs/year)
Graders	1,424,412	180	44.96	0.6	7.1	1.5	61	27.049
Scrapers	1,424,412	180	44.96	0.6	7.1	1.5	61	27.049

□ail□

Equipment Type	Max Daily Grubbing Area (ft^2)	Duration (days)	Max Daily Grader VMT (mi.)	F (scaling factor) - Grading PM10	S (mph)	Grading Emission Factor	Miti□ation □□ □	Grading Emissions (lbs/day)
Graders	15,827	180	0.25	0.6	7.1	1.54	61	0.150
Scrapers	15,827	180	0.25	0.6	7.1	1.54	61	0.150

□□i□ion □□alc□lation □□M□□□

□o□rl□

Equipment Type	Average Hourly Grubbing Area (ft2)	Duration (days)	Max Hourly Grader VMT (mi.)	F (scaling factor) - Grading PM10	S (mph)	Grading Emission Factor	Miti□ation □□ □	Grading Emissions (lbs/hr)
Graders	1,978	180	0.03	0.031	7.1	0.2	61	0.002
Scrapers	1,978	180	0.03	0.031	7.1	0.2	61	0.002

□nn□al

Equipment Type	Total Grubbing Area (ft2)	Duration (days)	Annual Grader VMT (mi.)	F (scaling factor) - Grading PM10	S (mph)	Grading Emission Factor	Miti□ation □□ □	Grading Emissions (lbs/year)
Graders	1,424,412	180	44.96	0.031	7.1	0.2	61	2.921
Scrapers	1,424,412	180	44.96	0.031	7.1	0.2	61	2.921

□ail□

Equipment Type	Max Daily Grubbing Area (ft2)	Duration (days)	Max Daily Grader VMT (mi.)	F (scaling factor) - Grading PM10	S (mph)	Grading Emission Factor	Miti□ation □□ □	Grading Emissions (lbs/day)
Graders	15,827	180	0.25	0.031	7.1	0.2	61	0.016
Scrapers	15,827	180	0.25	0.031	7.1	0.2	61	0.016

Aidlin Hills Project
Draft EIR
Air Quality Assessment

Bulldozing Equipment - Fugitive Dust Calculations

□□i□□ion □actor□□□ation

Bulldozing (Overburden)

EF_{PM10} (lb/hr) = F_{PM10} x 1.0 $(s)^{1.5}$ / $(M)^{1.4}$

$EF_{PM2.5}$ (lb/hr) = $F_{PM2.5}$ x 1.0 $(s)^{1.2}$ / $(M)^{1.3}$

□ **here**□
F_{PM10} = PM10 scaling factor
$F_{PM2.5}$ = PM2.5 scaling factor
s = surface material silt content (%)
M = surface material moisture content (%)

Source: AP-42 11.9-5. Table 11.9.1 (English Units). October 1998.

□□□□□ption□

□□□ation □ara□eter□	□al□e	□nit□	□ote□
F (scaling factor) - Bulldozing, PM10	0.75	-	AP-42 Chapter 11.9-5, Table 11.9-1. PM10 scaling factor.
F (scaling factor) - Bulldozing, PM2.5	0.105	-	AP-42 Chapter 11.9-5, Table 11.9-1. PM2.5 scaling factor.
s (silt content)	6.9	%	AP-42, Chapter 11.9, Table 11.9-3. Bulldozer Overburden Silt Content.
M (material moisture content)	7.9	%	AP-42 Chapter 11.9-9. Table 11.9-3. Overburden default value.
□□□□□ption□			
Hours per Day	8	hours	Total active work hours in a day
Mitigation (% Reduction)	61	%	Apply water 3x daily: http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html
Total Grubbing/Grading Area	1,424,412	ft2	37.2 acres disturbed.
Grading Equipment Blade Width	12	ft	Caterpillar 140M Grader Blade Width. CalEEMod default value. http://xml.catmms.com/servlet/ImageServlet?imageId=C617805
Grader Passes Required	2	passes	Assumed number of times grader will pass over an area for grubbing/grading.
Max Grading Area Per Day	15,827	ft2	Assumed two passes of the total acreage over the 180-day phase length

□□ip□ent □□ed □or □□lldo□in□ □cti□itie□

Equipment Type	Total Grubbing Area (ft^2)	Duration (days)	Average Daily Grubbing Area (ft^2)	Average Hourly Grubbing Area (ft^2)	Hours of Operation per Day
Rubber Tired Dozers	1,424,412	180	15,827	1,978	8

□□i□□ion □□alc□lation□ □□M□□□

□o□rl□

Equipment Type	Total Grubbing Area (ft2)	Days	Average Hourly Grubbing Area (ft^2)	F (scaling factor) - Bulldozing PM10	s (%)	M (%)	Bulldozing Emission Factor (lbs/hr)	Miti□ation □□ □	Bulldozing Emissions (lbs/hr)
Rubber Tired Dozers	1,424,412	180	1,978	0.75	6.9	7.9	0.75	61	**0.29**

□nn□al

Equipment Type	Total Grubbing Area (ft2)	Days	Total Grubbing Area (ft^2)	F (scaling factor) - Bulldozing PM10	s (%)	M (%)	Bulldozing Emission Factor (lbs/hr)	Miti□ation □□ □	Bulldozing Emissions (lbs/year)
Rubber Tired Dozers	1,424,412	180	180	0.75	6.9	7.9	0.75	61	**422.75**

□ail□

Equipment Type	Total Grubbing Area (ft2)	Days	Max Daily Grubbing Area (ft^2)	F (scaling factor) - Bulldozing PM10	s (%)	M (%)	Bulldozing Emission Factor (lbs/hr)	Miti□ation □□ □	Bulldozing Emissions (lbs/day)
Rubber Tired Dozers	1,424,412	180	15,827	0.75	6.9	7.9	0.75	61	**2.35**

□□i□□ion □□alc□lation□ □□M□□□

□o□rl□

Equipment Type	Total Grubbing Area (ft2)	Days	Average Hourly Grubbing Area (ft2)	F (scaling factor) - Bulldozing PM2.5	s (%)	M (%)	Bulldozing Emission Factor (lbs/hr)	Miti□ation □□ □	Bulldozing Emissions (lbs/hr)
Rubber Tired Dozers	1,424,412	180	1,978	0.105	6.9	7.9	0.41	61	**0.16**

□nn□al

Equipment Type	Total Grubbing Area (ft2)	Days	Total Grubbing Area (ft2)	F (scaling factor) - Bulldozing PM2.5	s (%)	M (%)	Bulldozing Emission Factor (lbs/hr)	Miti□ation □□ □	Bulldozing Emissions (lbs/year)
Rubber Tired Dozers	1,424,412	180	180	0.105	6.9	7.9	0.41	61	**232.38**

□ail□

Equipment Type	Total Grubbing Area (ft2)	Days	Max Daily Grubbing Area (ft2)	F (scaling factor) - Bulldozing PM2.5	s (%)	M (%)	Bulldozing Emission Factor (lbs/hr)	Miti□ation □□ □	Bulldozing Emissions (lbs/day)
Rubber Tired Dozers	1,424,412	180	15,827	0.105	6.9	7.9	0.41	61	**1.29**

Appendix B.2
Localized Significance Thresholds Analysis (LST)

Aidlin Hills Project
Localized Significance Thresholds Analysis

Maximum Unmitigated On-Site (Localized) Construction Emissions

	Emissions (pounds per day)							
Construction Phase	NOx	CO	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
On-Site Emissions								
Grading (2015)	123.76	73.09	4.34	5.70	10.04	1.58	5.27	6.83
Grading (2016)	115.06	70.14	4.34	5.28	9.62	1.58	4.86	6.44
Grading & Utilities (2016)	**135.64**	**85.39**	**4.34**	**6.76**	**11.10**	**1.58**	**6.28**	**7.86**
Utilities (2016)	20.58	15.25	-	1.48	1.48	-	1.42	1.42
Utilities & Streets (2016)	42.96	30.07	-	2.74	2.74	-	2.58	2.58
Utilities & Streets (2017)	39.46	29.87	-	2.48	2.48	-	2.33	2.33
Utilities & Streets & Bldg. Constr. (2017)	67.97	49.24	-	4.39	4.39	-	4.12	4.12
Utilities & Bldg. Constr. (2017)	47.67	34.51	-	3.25	3.25	-	3.07	3.07
Bldg. Constr. (2017)	28.51	19.37	-	1.91	1.91	-	1.79	1.79
Bldg. Constr. & Coating (2017)	31.42	21.86	-	2.14	2.14	-	2.02	2.02
Bldg. Constr. & Coating (2018)	27.76	21.19	-	1.80	1.80	-	1.70	1.70
Bldg. Constr. & Coating (2019)	25.02	20.72	-	1.55	1.55	-	1.46	1.46
Maximum (pounds per day)	135.64	85.39			11.10			7.86
Maximum (grams per second) [a]	2.14	1.34			0.17			0.12

Notes:

a. Converted to grams per second assuming a total of 8-hours of emissions generating activity from active construction equipment usage.

Note: Bold indicates maximum daily emissions.

Source: PCR Services Corporation, 2014

Maximum Mitigated On-Site (Localized) Construction Emissions

	Emissions (pounds per day)							
Construction Phase	NOx	CO	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
On-Site Emissions								
Grading (2015)	57.78	65.46	4.34	2.72	7.06	1.58	2.65	4.23
Grading (2016)	57.25	65.42	4.34	2.66	7.00	1.58	2.60	4.18
Grading & Utilities (2016)	**77.83**	**80.67**	**4.34**	**4.14**	**8.48**	**1.58**	**4.02**	**5.60**
Utilities (2016)	20.58	15.25	-	1.48	1.48	-	1.42	1.42
Utilities & Streets (2016)	42.96	30.07	-	2.74	2.74	-	2.58	2.58
Utilities & Streets (2017)	39.46	29.87	-	2.48	2.48	-	2.33	2.33
Utilities & Streets & Bldg. Constr. (2017)	67.97	49.24	-	4.39	4.39	-	4.12	4.12
Utilities & Bldg. Constr. (2017)	47.67	34.51	-	3.25	3.25	-	3.07	3.07
Bldg. Constr. (2017)	28.51	19.37	-	1.91	1.91	-	1.79	1.79
Bldg. Constr. & Coating (2017)	31.42	21.86	-	2.14	2.14	-	2.02	2.02
Bldg. Constr. & Coating (2018)	27.76	21.19	-	1.80	1.80	-	1.70	1.70
Bldg. Constr. & Coating (2019)	25.02	20.72	-	1.55	1.55	-	1.46	1.46
Maximum (pounds per day)	77.83	80.67			8.48			5.60
Maximum (grams per second) [a]	1.23	1.27			0.13			0.09

Notes:

a. Converted to grams per second assuming a total of 8-hours of emissions generating activity from active construction equipment usage.

Note: Bold indicates maximum daily emissions.

Source: PCR Services Corporation, 2015

Aidlin Hills Project
Localized Significance Thresholds Analysis

AERMOD Source Characteristics

Emission Source	Source Type	Release Height (m)	Length of Side X (m)	Length of Side Y (m)	Initial Lateral (m)	Initial Vertical (m)	Exit Temp (°F)	Inside Diameter (ft)	Exit Flow Rate (ft^3/s)
On-Site Construction Emissions	Volume	5.00	50.00	50.00	11.63	1.16	n/a	n/a	n/a

Source: PCR Services Corporation, 2015

Aidlin Hills Project
Localized Significance Thresholds Analysis

AERMOD Source Emission Rates

Emissions Source	Source ID	Source Type	Number of Sources	Averaging Period (hours/day)	Emission Rates (per each source)							
					NO_X		CO		PM10		PM2.5	
					(lbs/day)	(g/s)	(lbs/day)	(g/s)	(lbs/day)	(g/s)	(lbs/day)	(g/s)
Unmitigated												
Grading (2016)	VOL1-12	Volume	12	8	115.06	1.51E-01	70.14	9.21E-02	9.62	1.26E-02	6.44	8.45E-03
Utilities (2016)	VOL13-16	Volume	4	8	20.58	8.10E-02	15.25	6.00E-02	1.48	5.82E-03	1.42	5.57E-03
Additional analysis for 98th Percentile NOx: [a]												
Grading (2015)	VOL1-16	Volume	16	8	123.76	1.22E-01						
Utilities & Streets & Bldg Constr (2017)	VOL17-32	Volume	16	8	67.97	6.69E-02						
Mitigated												
Grading (2016)	VOL1-12	Volume	12	8	57.25	7.51E-02	65.42	8.59E-02	7.00	9.19E-03	4.18	5.49E-03
Utilities (2016)	VOL13-16	Volume	4	8	20.58	8.10E-02	15.25	6.00E-02	1.48	5.82E-03	1.42	5.57E-03
Additional analysis for 98th Percentile NOx: [a]												
Grading (2015)	VOL1-16	Volume	16	8	57.78	5.69E-02						
Utilities & Streets & Bldg Constr (2017)	VOL17-32	Volume	16	8	67.97	6.69E-02						

Note:

a. Additional analysis is used to determined the three-year average of the 98th percentile (8th highest) concentration for comparision to the 1-hour NAAQS for NO_2.

Source: PCR Services Corporation, 2015

Aidlin Hills Project
Localized Significance Thresholds Analysis

LST Impacts: Unmitigated Construction

	Project Concentrations ($\mu g/m^3$)			
Source	NO_2	CO	PM10	PM2.5
Project On-Site Construction Emissions [a]				
1-hour average	238.3	183.8	—	—
1-hour average (3-year avg of 98th per.)	139.6	—	—	—
8-hour average	—	54.43	—	—
24-hour average	—	—	3.45	2.34
Background [b]				
1-hour average	124.0	2,289	—	—
1-hour average (3-year avg of 98th per.)	89.3	—	—	—
8-hour average	—	1,259	—	—
24-hour average	—	—	—	—
Total (Project + Background)				
1-hour average	362.3	2,473	—	—
1-hour average (3-year avg of 98th per.)	228.9	—	—	—
8-hour average	—	1,313	—	—
24-hour average	—	—	3.45	2.34
Localized Significance Thresholds				
1-hour average	339.0	23,000	—	—
1-hour average (3-year avg of 98th per.)	188.0	—	—	—
8-hour average	—	10,000	—	—
24-hour average	—	—	10.4	10.4
Exceeds Thresholds?				
1-hour average	YES	NO	—	—
1-hour average (3-year avg of 98th per.)	YES	—	—	—
8-hour average	—	NO	—	—
24-hour average	—	—	NO	NO

	Project NOx (1-hr 98th Percentile) ($\mu g/m^3$)		
	Grad.	Grad./Util.	Ut./S.P./B.C.
1-hr 98th per.	181.8	219.9	17.06
3-year avg.	139.6		

	Background NOx (1-hr 98th Percentile) ($\mu g/m^3$)		
	2011	2012	2013
1-hr 98th per.	88.0	95.3	84.6
3-year avg.	89.3		

Notes:

a. Project concentrations are based on the results from the AERMOD dispersion model. NO2 concentrations are based on Ambient Ratio Method (ARM) conversion from NO_X emissions.

b. Background concentrations are based on the maximum of the most recent three years for which data is available from the SCAQMD for the Lake Elsinore Monitoring Station (2011-2013). See SCAQMD website: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. The 1-hour CO concentration is based on data from the same time period from the USEPA. See USEPA website: http://www.epa.gov/airdata/ad_rep_mon.html.

Source: PCR Services Corporation, 2015

Aidlin Hills Project
Localized Significance Thresholds Analysis

LST Impacts: Mitigated Construction

Source	Project Concentrations (µg/m^3)			
	NO_2	CO	PM10	PM2.5
Project On-Site Construction Emissions [a]				
1-hour average	121.5	171.8	—	—
1-hour average (3-year avg of 98th per.)	71.3	—	—	—
8-hour average	—	50.81	—	—
24-hour average	—	—	2.54	1.54
Background [b]				
1-hour average	124.0	2,289	—	—
1-hour average (3-year avg of 98th per.)	89.3	—	—	—
8-hour average	—	1,259	—	—
24-hour average	—	—	—	—
Total (Project + Background)				
1-hour average	245.5	2,461	—	—
1-hour average (3-year avg of 98th per.)	160.6	—	—	—
8-hour average	—	1,310	—	—
24-hour average	—	—	2.54	1.54
Localized Significance Thresholds				
1-hour average	339.0	23,000	—	—
1-hour average (3-year avg of 98th per.)	188.0	—	—	—
8-hour average	—	10,000	—	—
24-hour average	—	—	10.4	10.4
Exceeds Thresholds?				
1-hour average	NO	NO	—	—
1-hour average (3-year avg of 98th per.)	NO	—	—	—
8-hour average	—	NO	—	—
24-hour average	—	—	NO	NO

	Project NOx (1-hr 98th Percentile) (µg/m^3)		
	Grad.	Grad./Util.	Bldg. Const.
1-hr 98th per.	84.8	112.1	17.06
3-year avg.	71.3		

	Background NOx (1-hr 98th Percentile) (µg/m^3)		
	2011	2012	2013
1-hr 98th per.	88.0	95.3	84.6
3-year avg.	89.3		

Notes:

a. Project concentrations are based on the results from the AERMOD dispersion model. NO_2 concentrations are based on Ambient Ratio Method (ARM) conversion from NO_X emissions.

b. Background concentrations are based on the maximum of the most recent three years for which data is available from the SCAQMD for the Lake Elsinore Monitoring Station (2011-2013). See SCAQMD website: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. The 1-hour CO concentration is based on data from the same time period from the USEPA. See USEPA website: http://www.epa.gov/airdata/ad_rep_mon.html.

Source: PCR Services Corporation, 2015

Appendix B.3
Operational Emissions

- Operations : CalEEMod Output (Summer)
- Operations : CalEEMod Output (Winter)
- Operations : CalEEMod Output Mitigation Report

□idlin □ill□ □ro□ect □□□ □□peration□

□o□th □oa□t □ir □a□in□□□□ □er

□□□ □ro□ect □haracteri□tic□

□□□ □and □□a□e

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	102.00	Dwelling Unit	20.80	357,000.00	306

□□□ □ther □ro□ect □haracteri□tic□

□r□ani□ation	Urban	□ ind □peed □□ □□□	2.2	□recipitation □re□ □□a□□□	31
□li□ ate □one	9			□perational □ear	2019
□tilit□ □o□ pan□	Southern California Edison				
□□□ □nten□it□ □l□M□ hr□	630.89	□□□ □nten□it□ □l□M□ hr□	0.029	□□□ □nten□it□ □l□M□ hr□	0.006

□□□ □□er □ntered □o□ □ ent□ □ □on□□e□a□lt □ata

Project Characteristics -

Land Use - Total floor area based on the average square foot of 3,500 per dwelling unit (range of 2,700 sf to 4,300 sf); Population based on 3 residents per household in Los Angeles County.

Vehicle Trips - Trip Rate: Institute of Transportation Engineers, Trip Generation Manual, 9th Ed., (2012).

Woodstoves - Assumes natural gas hearth in each dwelling unit.

Water And Wastewater - Based on 900 gallons per day (data provided by Valencia Water Company).

Solid Waste - Based on CalRecycle residential disposal factor of 0.41 tons/capita/year for Los Angeles County, 306 residents, and the County's required 50% waste diversion factor (= 63 tons per year).

Area Mitigation - Natural Gas Hearths; Low VOC Interior Paints.

Energy Mitigation - According to the CEC, Title 24 (2013) is 25% more efficient than Title 24 (2008). Energy efficienct appliances (e.g., ENERGY STAR qualified).

Water Mitigation - Low flow faucets.

Operational Off-Road Equipment - Two 253,000 gallon water storage tanks and a pump station with one 20 hp unit for each tank.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	86.70	102.00
tblFireplaces	NumberNoFireplace	10.20	0.00
tblFireplaces	NumberWood	5.10	0.00
tblLandUse	LandUseSquareFeet	183,600.00	357,000.00
tblLandUse	LotAcreage	33.12	20.80
tblLandUse	Population	292.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	100.00
tblOperationalOffRoadEquipment	OperHorsePower	84.00	20.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblSolidWaste	SolidWasteGenerationRate	125.46	63.00
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	9.57	9.52
tblWater	IndoorWaterUseRate	6,645,710.61	20,551,027.00
tblWater	OutdoorWaterUseRate	4,189,687.13	12,955,973.00
tblWoodstoves	NumberCatalytic	5.10	0.00
tblWoodstoves	NumberNoncatalytic	5.10	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

□□□ □ □erall □perational

□n□ iti□ated □perational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101
Energy	0.0898	0.7675	0.3266	4.9000e-003		0.0621	0.0621		0.0621	0.0621		979.7569	979.7569	0.0188	0.0180	985.7196
Mobile	2.9933	8.6865	34.9805	0.1051	7.0378	0.1399	7.1777	1.8805	0.1290	2.0095		8,409.7302	8,409.7302	0.2948		8,415.9211
Offroad	0.0954	0.5998	0.3264	9.1000e-004		0.0279	0.0279		0.0279	0.0279		74.1708	74.1708	8.6100e-003		74.3517
□otal	□□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□

Miti□ated □perational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101
Energy	0.0718	0.6133	0.2610	3.9100e-003		0.0496	0.0496		0.0496	0.0496		782.9568	782.9568	0.0150	0.0144	787.7217
Mobile	2.9933	8.6865	34.9805	0.1051	7.0378	0.1399	7.1777	1.8805	0.1290	2.0095		8,409.7302	8,409.7302	0.2948		8,415.9211
Offroad	0.0954	0.5998	0.3264	9.1000e-004		0.0279	0.0279		0.0279	0.0279		74.1708	74.1708	8.6100e-003		74.3517
□otal	□□□□□□□	□□□□□□	□□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□

	□□G	**□□□**	**□□**	**□□□**	**□□□iti□e □M□□**	**□□ha□□t □M□□**	**□M□□ □otal**	**□□□iti□e □M□□**	**□□ha□□t □M□□**	**□M□□ □otal**	**□io□□□□**	**□□io□□□□**	**□otal □□□**	**□□□**	**□□□**	**□□□e**
□ercent □ed□ction	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□

□□□ □perational □etail □Mo□ile

□□□ Miti□ation Mea□□re□ Mo□ile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9933	8.6865	34.9805	0.1051	7.0378	0.1399	7.1777	1.8805	0.1290	2.0095		8,409.7302	8,409.7302	0.2948		8,415.9211
Unmitigated	2.9933	8.6865	34.9805	0.1051	7.0378	0.1399	7.1777	1.8805	0.1290	2.0095		8,409.7302	8,409.7302	0.2948		8,415.9211

□□□ □rip □□□ □ ar□ n□or□ ation

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	971.04	971.04	971.04	3,318,191	3,318,191
Total	971.04	971.04	971.04	3,318,191	3,318,191

□□□ □rip □□pe □n□or□ ation

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511108	0.059746	0.180859	0.139188	0.042462	0.006666	0.016153	0.032295	0.001940	0.002496	0.004377	0.000582	0.002128

□□□ □ner□□ □etail

Historical Energy Use: N

□□□ Miti□ation Mea□□re□ □ner□□

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0718	0.6133	0.2610	3.9100e-003		0.0496	0.0496		0.0496	0.0496		782.9568	782.9568	0.0150	0.0144	787.7217
NaturalGas Unmitigated	0.0898	0.7675	0.3266	4.9000e-003		0.0621	0.0621		0.0621	0.0621		979.7569	979.7569	0.0188	0.0180	985.7196

□□ □ner□□ □□ □and □□e □□at□ralGa□

□n□ iti□ated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	8327.93	0.0898	0.7675	0.3266	4.9000e-003		0.0621	0.0621		0.0621	0.0621		979.7569	979.7569	0.0188	0.0180	985.7196
□otal		□□□□□	□□□□□	□□□□□	□□□□□e□ □□□		□□□□□	□□□□□		□□□□□	□□□□□		□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□

Miti□ated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	6.65513	0.0718	0.6133	0.2610	3.9100e-003		0.0496	0.0496		0.0496	0.0496		782.9568	782.9568	0.0150	0.0144	787.7217
□otal		□□□□□	□□□□□	□□□□□	□□□□□e□ □□□		□□□□□	□□□□□		□□□□□	□□□□□		□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□

□□□ □rea □etail

□□□ Miti□ation Mea□□re□ □rea

Use Low VOC Paint - Residential Interior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101
Unmitigated	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101

□□□ □rea □□ □□□□ate□or□

□n□ iti□ated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7650					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1980	1.0000e-005	0.0108	0.0000		0.1368	0.1368		0.1354	0.1354	0.0000	2,160.0000	2,160.0000	0.0414	0.0396	2,173.1454
Landscaping	0.2589	0.0980	8.4568	4.4000e-004		0.0463	0.0463		0.0463	0.0463		15.1523	15.1523	0.0149		15.4647
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □	□□□□□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □

Miti□ated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	7.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1980	1.0000e-005	0.0108	0.0000		0.1368	0.1368		0.1354	0.1354	0.0000	2,160.0000	2,160.0000	0.0414	0.0396	2,173.1454
Landscaping	0.2589	0.0980	8.4568	4.4000e-004		0.0463	0.0463		0.0463	0.0463		15.1523	15.1523	0.0149		15.4647
Architectural Coating	0.7650					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □	□□□□□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □

□□□ □ ater □etail

□□□ Miti□ation Mea□□re□ □ ater

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

□□□ □ a□te □etail

□□□ Miti□ation Mea□□re□ □ a□te

□□□ □perational □ □□road

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Generator Sets	2	2.00	100	20	0.74	Diesel

□nMiti□ated□Miti□ated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Generator Sets	0.0954	0.5998	0.3264	9.1000e-004		0.0279	0.0279		0.0279	0.0279		74.1708	74.1708	8.6100e-003		74.3517
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□	□□□□□□□	□□□□□□e□ □□□		□□□□□□□

□□□□ □e□etation

□idlin □ill□ □ro□ect □□□ □□peration□

□o□th □oa□t □ir □a□in□□ inter

□□□ □ro□ect □haracteri□tic□

□□□ □and □□a□e

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	102.00	Dwelling Unit	20.80	357,000.00	306

□□□ □ther □ro□ect □haracteri□tic□

□r□ani□ation	Urban	**□ ind □peed □□ □□□**	2.2	**□recipitation □re□ □□a□□□**	31
□li□ ate □one	9			**□perational □ear**	2019
□tilit□ □o□ pan□	Southern California Edison				
□□□ □nten□it□ □l□M□ hr□	630.89	**□□□ □nten□it□ □l□M□ hr□**	0.029	**□□□ □nten□it□ □l□M□ hr□**	0.006

□□□ □□er □ntered □o□ □ ent□ □ □on□□e□a□lt □ata

Project Characteristics -

Land Use - Total floor area based on the average square foot of 3,500 per dwelling unit (range of 2,700 sf to 4,300 sf); Population based on 3 residents per household in Los Angeles County.

Vehicle Trips - Trip Rate: Institute of Transportation Engineers, Trip Generation Manual, 9th Ed., (2012).

Woodstoves - Assumes natural gas hearth in each dwelling unit.

Water And Wastewater - Based on 900 gallons per day (data provided by Valencia Water Company).

Solid Waste - Based on CalRecycle residential disposal factor of 0.41 tons/capita/year for Los Angeles County, 306 residents, and the County's required 50% waste diversion factor (= 63 tons per year).

Area Mitigation - Natural Gas Hearths; Low VOC Interior Paints.

Energy Mitigation - According to the CEC, Title 24 (2013) is 25% more efficient than Title 24 (2008). Energy efficienct appliances (e.g., ENERGY STAR qualified).

Water Mitigation - Low flow faucets.

Operational Off-Road Equipment - Two 253,000 gallon water storage tanks and a pump station with one 20 hp unit for each tank.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	86.70	102.00
tblFireplaces	NumberNoFireplace	10.20	0.00
tblFireplaces	NumberWood	5.10	0.00
tblLandUse	LandUseSquareFeet	183,600.00	357,000.00
tblLandUse	LotAcreage	33.12	20.80
tblLandUse	Population	292.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	100.00
tblOperationalOffRoadEquipment	OperHorsePower	84.00	20.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblSolidWaste	SolidWasteGenerationRate	125.46	63.00
tblVehicleTrips	ST_TR	10.08	9.52
tblVehicleTrips	SU_TR	8.77	9.52
tblVehicleTrips	WD_TR	9.57	9.52
tblWater	IndoorWaterUseRate	6,645,710.61	20,551,027.00
tblWater	OutdoorWaterUseRate	4,189,687.13	12,955,973.00
tblWoodstoves	NumberCatalytic	5.10	0.00
tblWoodstoves	NumberNoncatalytic	5.10	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

□□□ □ □erall □perational

□n□ iti□ated □perational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101
Energy	0.0898	0.7675	0.3266	4.9000e-003		0.0621	0.0621		0.0621	0.0621		979.7569	979.7569	0.0188	0.0180	985.7196
Mobile	3.0790	9.1271	34.3622	0.0998	7.0378	0.1404	7.1782	1.8805	0.1294	2.0099		8,007.5343	8,007.5343	0.2951		8,013.7312
Offroad	0.0954	0.5998	0.3264	9.1000e-004		0.0279	0.0279		0.0279	0.0279		74.1708	74.1708	8.6100e-003		74.3517
□otal	□□□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□	□□□□□	□□□□□□□□□□

Miti□ated □perational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101
Energy	0.0718	0.6133	0.2610	3.9100e-003		0.0496	0.0496		0.0496	0.0496		782.9568	782.9568	0.0150	0.0144	787.7217
Mobile	3.0790	9.1271	34.3622	0.0998	7.0378	0.1404	7.1782	1.8805	0.1294	2.0099		8,007.5343	8,007.5343	0.2951		8,013.7312
Offroad	0.0954	0.5998	0.3264	9.1000e-004		0.0279	0.0279		0.0279	0.0279		74.1708	74.1708	8.6100e-003		74.3517
□otal	□□□□□□□	□□□□□□□	□□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□	□□□□□□□□□□	□□□□□□□□□□	□□□□□	□□□□□	□□□□□□□□□□

	□□G	□□□	□□	□□□	□□□iti□e □M□□	□□ha□□t □M□□	□M□□ □otal	□□□iti□e □M□□	□□ha□□t □M□□	□M□□ □otal	□io□□□□	□□io□□□□	□otal □□□	□□□	□□□	□□□e
□ercent □ed□ction	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□	□□□□

□□□ □perational □etail □Mo□ile

□□□ Miti□ation Mea□□re□ Mo□ile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0790	9.1271	34.3622	0.0998	7.0378	0.1404	7.1782	1.8805	0.1294	2.0099		8,007.5343	8,007.5343	0.2951		8,013.7312
Unmitigated	3.0790	9.1271	34.3622	0.0998	7.0378	0.1404	7.1782	1.8805	0.1294	2.0099		8,007.5343	8,007.5343	0.2951		8,013.7312

□□□ □rip □□□ □ ar□ n□or□ ation

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	971.04	971.04	971.04	3,318,191	3,318,191
Total	971.04	971.04	971.04	3,318,191	3,318,191

□□□ □rip □□pe n□or□ ation

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511108	0.059746	0.180859	0.139188	0.042462	0.006666	0.016153	0.032295	0.001940	0.002496	0.004377	0.000582	0.002128

□□□ □ner□□ □etail

Historical Energy Use: N

□□□ Miti□ation Mea□□re□ □ner□□

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0718	0.6133	0.2610	3.9100e-003		0.0496	0.0496		0.0496	0.0496		782.9568	782.9568	0.0150	0.0144	787.7217
NaturalGas Unmitigated	0.0898	0.7675	0.3266	4.9000e-003		0.0621	0.0621		0.0621	0.0621		979.7569	979.7569	0.0188	0.0180	985.7196

□□ □ner□□ □□ □and □□e □□at□ralGa□

□n□ iti□ated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	8327.93	0.0898	0.7675	0.3266	4.9000e-003		0.0621	0.0621		0.0621	0.0621		979.7569	979.7569	0.0188	0.0180	985.7196
□otal		□□□□□	□□□□□	□□□□□	□□□□□e□ □□□		□□□□□	□□□□□		□□□□□	□□□□□		□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□

Miti□ated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	6.65513	0.0718	0.6133	0.2610	3.9100e-003		0.0496	0.0496		0.0496	0.0496		782.9568	782.9568	0.0150	0.0144	787.7217
□otal		□□□□□	□□□□□	□□□□□	□□□□□e□ □□□		□□□□□	□□□□□		□□□□□	□□□□□		□□□□□□	□□□□□	□□□□□	□□□□□	□□□□□

□□□ □rea □etail

□□□ Miti□ation Mea□□re□ □rea

Use Low VOC Paint - Residential Interior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101
Unmitigated	8.2905	0.0980	8.4676	4.4000e-004		0.1831	0.1831		0.1817	0.1817	0.0000	2,175.1523	2,175.1523	0.0563	0.0396	2,188.6101

□□□ □rea □□ □□□□ate□or□

□n□ iti□ated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7650					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1980	1.0000e-005	0.0108	0.0000		0.1368	0.1368		0.1354	0.1354	0.0000	2,160.0000	2,160.0000	0.0414	0.0396	2,173.1454
Landscaping	0.2589	0.0980	8.4568	4.4000e-004		0.0463	0.0463		0.0463	0.0463		15.1523	15.1523	0.0149		15.4647
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □	□□□□□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □

Miti□ated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	7.0686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1980	1.0000e-005	0.0108	0.0000		0.1368	0.1368		0.1354	0.1354	0.0000	2,160.0000	2,160.0000	0.0414	0.0396	2,173.1454
Landscaping	0.2589	0.0980	8.4568	4.4000e-004		0.0463	0.0463		0.0463	0.0463		15.1523	15.1523	0.0149		15.4647
Architectural Coating	0.7650					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
□otal	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □	□□□□□□□□□□	□□□□□□	□□□□□□	□□□□□□□□□□ □

□□□ □ ater □etail

□□□ Miti□ation Mea□□re□ □ ater

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

□□□ □ a□te □etail

□□□ Miti□ation Mea□□re□ □ a□te

□□□ □perational □ □□road

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Generator Sets	2	2.00	100	20	0.74	Diesel

□nMiti□ated□Miti□ated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Generator Sets	0.0954	0.5998	0.3264	9.1000e-004		0.0279	0.0279		0.0279	0.0279		74.1708	74.1708	8.6100e-003		74.3517
□**otal**	□□□□□□	□□□□□□	□□□□□□	□□□□□□e□ □□□		□□□□□□	□□□□□□		□□□□□□	□□□□□□		□□□□□□□	□□□□□□□	□□□□□□e□ □□□		□□□□□□□

□□□□ □e□etation

□idlin □ill□ □ro□ect □□ □□peration□

□o□th □oa□t □ir □a□in□Miti□ation □eport

□perational □ercent □ed□ction □□□ □ ar□

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.22	5.22	5.21	5.42	5.22
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	20.07	20.08	20.08	20.22	20.05	20.05	0.00	20.09	20.09	20.26	19.87	20.09
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	9.00	5.85	6.02	8.99	8.92	6.42
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

□perational Mo□ile Miti□ation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

□rea Miti□ation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
Yes	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

□ner□□ Miti□ation Mea□□re□

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	25.00	
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher	Single Family Housing	30.00
DishWasher	Single Family Housing	15.00
Fan	Single Family Housing	50.00
Refrigerator	Single Family Housing	15.00

□ ater Miti□ation Mea□□re□

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

□olid □ a□te Miti□ation

Mitigation Measures	Input Value
Institute Recycling and Composting Services	
Percent Reduction in Waste Disposed	

Appendix B.4
South Coast Air Quality Management District Rule 403

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

(9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.

(10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.

(11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.

(13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

(14) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(15) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(16) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.

(17) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.

(18) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.

(19) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.

(20) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(21) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

(22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.

(23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(25) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.

(28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.

(29) SIMULTANEOUS SAMPLING means the operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(31) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.

(32) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(33) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.

(34) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(35) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(36) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(37) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

(A) the dust remains visible in the atmosphere beyond the property line of the emission source; or

(B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

(2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

(3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10}.

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.

(A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

(B) Pave the surface extending at least 100 feet and at least 20 feet wide.

(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).

(6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.

(e) Additional Requirements for Large Operations

(1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:

(A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;

(B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;

(C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

(D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;

(E) identify a dust control supervisor that:

(i) is employed by or contracted with the property owner or developer;

(ii) is on the site or available on-site within 30 minutes during working hours;

(iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

(iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).

(2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

(A) Dairy farms.

(B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.

(C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.

(K) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:

(A) When wind gusts exceed 25 miles per hour, provided that:

(i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;

(ii) records are maintained in accordance with subparagraph (e)(1)(C).

(B) To unpaved roads, provided such roads:

(i) are used solely for the maintenance of wind-generating equipment; or

(ii) are unpaved public alleys as defined in Rule 1186; or

(iii) are service roads that meet all of the following criteria:

(a) are less than 50 feet in width at all points along the road;

(b) are within 25 feet of the property line; and

(c) have a traffic volume less than 20 vehicle-trips per day.

(C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.

(3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.

(4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:

(A) Blasting operations which have been permitted by the California Division of Industrial Safety; and

(B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

(6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.

(7) The provisions of subdivision (e) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.

(C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
Unpaved roads/parking lots	19-1	Stabilize soils to meet the applicable performance standards; and	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
	19-2	Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	
Vacant land	20-1	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES	
Earth-moving	(1A)	Cease all active operations; OR
	(2A)	Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B)	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR
	(1B)	Apply chemical stabilizers prior to wind event; OR
	(2B)	Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR
	(3B)	Take the actions specified in Table 2, Item (3c); OR
	(4B)	Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C)	Apply chemical stabilizers prior to wind event; OR
	(2C)	Apply water twice per hour during active operation; OR
	(3C)	Stop all vehicular traffic.
Open storage piles	(1D)	Apply water twice per hour; OR
	(2D)	Install temporary coverings.
Paved road track-out	(1E)	Cover all haul vehicles; OR
	(2E)	Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling **(Only applicable to Commercial Poultry Ranches)**	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).

PCR Irvine
2121 Alton Parkway, Suite 100
Irvine, California 92606
TEL 949.753.7001
FAX 949.753.7002

PCR Santa Monica
201 Santa Monica Boulevard, Suite 500
Santa Monica, California 90401
TEL 310.451.4488
FAX 310.451.5279

PCR Pasadena
80 South Lake Avenue, Suite 570
Pasadena, California 91101
TEL 626.204.6170
FAX 626.204.6171

pcrinfo@pcrnet.com
www.pcrnet.com