

**SAGE CANYON RESIDENTIAL PROJECT TTM 71373
CITY OF LA VERNE
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**



Lead Agency:

**City of La Verne
3660 "D" Street,
La Verne, California 91750**

Prepared by:

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November 30, 2015

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INITIAL STUDY

1. PROJECT TITLE

Sage Canyon Residential Project – TTM 71373 (see Appendix A)

2. LEAD AGENCY NAME AND ADDRESS

City of La Verne
3660 “D” Street
La Verne, California 91750

3. CONTACT PERSON AND PHONE NUMBER

Eric Scherer
Principal Planner
City of La Verne
(909) 596-8706
escherer@ci.la-verne.ca.us

4. PROJECT LOCATION

North of Golden Hills Road at Divot Drive in the northwest portion of the City of La Verne. The project’s Assessor’s Parcel Numbers are 8678-023-001, 8678-022-015, and 8678-023-010 (see Figures 1 and 2).

5. PROJECT SPONSOR’S NAME AND ADDRESS

Sage Canyon Development, LLC
373 E. Foothill Boulevard, Suite 200
San Dimas, California 91773

6. GENERAL PLAN DESIGNATION

Hillside Residential (0-2 Dwelling units/acre)

7. ZONING

PR1/5D and PR2D

8. DESCRIPTION OF PROJECT

The project proposes 14 single-family detached units on 11.4 acres via a residential subdivision. The property is located north of Golden Hills Road at Divot Drive in the northwestern portion of the City of La Verne. The project consists of Tentative Tract Map (TTM) 71373, which proposes 17 lots with 14 homes. Two of the homes currently exist on site and one will be refurbished in the future in conjunction with the new development. These existing homes are considered part of the existing setting and baseline and will not be included in project impact calculations. One of the three existing parcels require a zone change from PR1/5D to PR2D while the other two lots are already zoned PR2D. Project grading will entail constructing a new all-weather access road to

the new lots and grading pads for the future homes. Project development will involve constructing 12 new custom homes and eventually reconstructing one of the existing homes. Site may be mass graded at the outset and homes will be completed based on market conditions (i.e., no set phasing). Opening year could be as early as mid to late 2016.

This development will require two modifications to the Hillside Development Overlay Zone (HDOZ) requirements: (1) it will have a cul-de-sac length that exceeds the current standard; and (2) the development will only have one access point instead of the currently required two points of access. The property is within a hillside fire zone, but the City Fire Department has reviewed the design of this specific case and has indicated it can support the two requested HDOZ modifications for this specific development.

A large natural drainage channel defines the southeastern boundary of the site but is not part of the proposed development except for a 1.9-acre portion just north of Golden Hills Road at Divot Drive. This area has historically flooded both on site and downstream properties during large storm events. This area will be reconstructed with a new permanent access road north off of Golden Hills Road. This new road will also act as a levee and provide improved flood protection for the project site and downstream properties. An existing maintenance transfer drain will also be relocated to just east of the new road to help provide improved drainage and flood protection.

9. SURROUNDING LAND USES AND SETTING

The 11.4-acre site is located in the northern portion of the City of La Verne. The site contains two existing residential homes, a large open field, 79 oak trees, and a single long driveway to the existing homes.

The project site is located within the North La Verne Hillside Neighborhood Plan and is generally adjacent to residential homes to the west, south, and east. However, there are large areas of open space east and south of the site. Immediately north of the site are the San Gabriel foothills. The nearest freeway to the site is the State Route 210 (SR-210) approximately 1.6 miles south. Additionally, Live Oak Reservoir is located 0.8 mile southeast of the site.

Figure 3 illustrates surrounding land uses. Figure 4 shows the project site plan. Figures 5A through 5C consist of site photographs.

10. PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

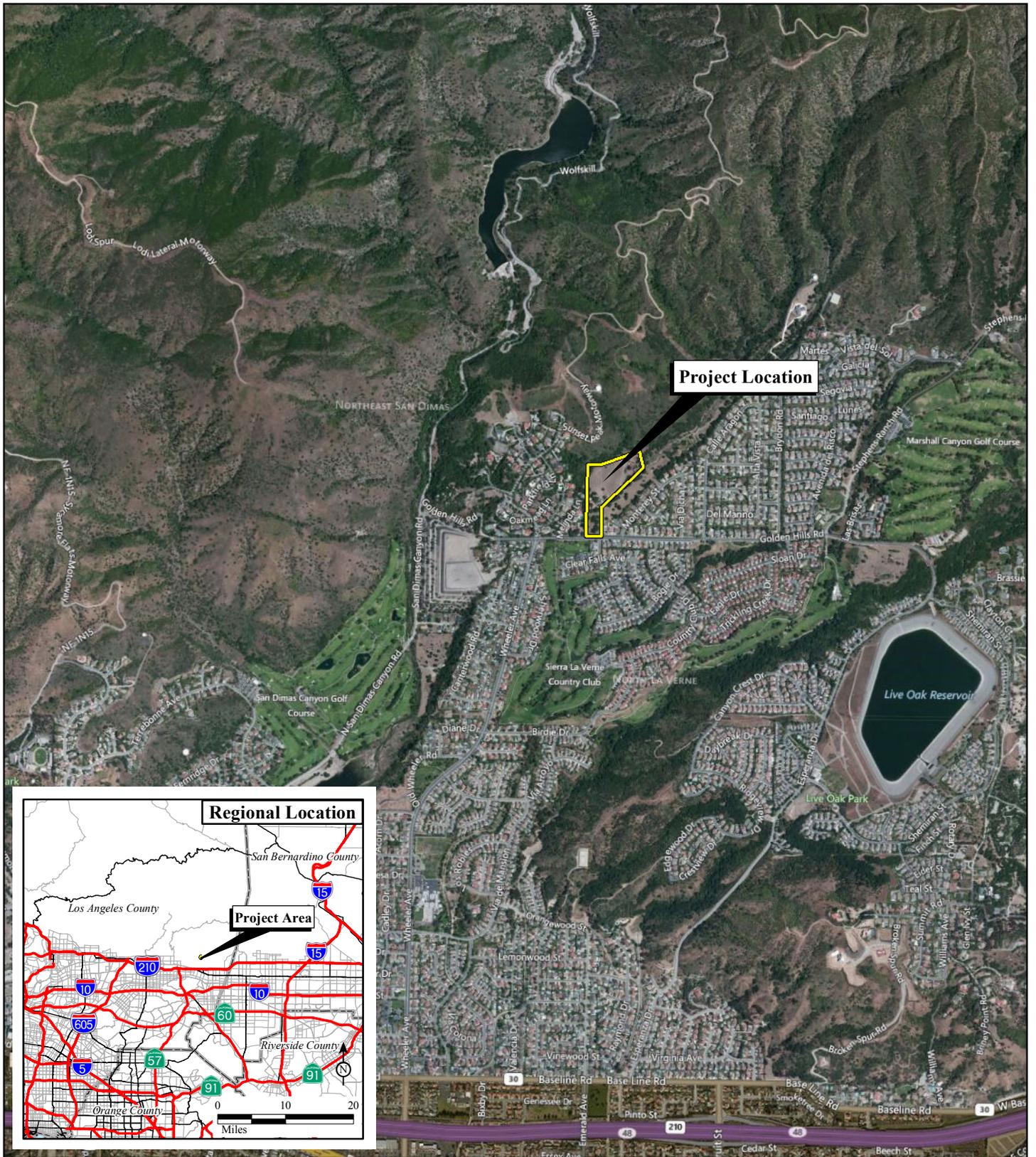
The project requires approval by the City of La Verne. The entitlements required from the City include:

- Zone Change
- Tentative Tract Map 71373
- Hillside Development Overlay Zone (HDOZ) modifications specific to this project as a Zoning Amendment
- Tree Removal permit for the removal of Heritage trees

- Water Quality Management Plan and Storm Water Pollution Prevention Plan per the City's Low Impact Development (LID) requirements

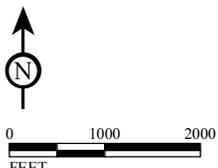
Other public agencies whose approval may be required include:

- California Department of Fish and Wildlife (CDFW) for California Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement.
- U.S. Army Corps of Engineers (USACE) for the Clean Water Act (CWA) Section 404 Nation-Wide Permit.
- Los Angeles Regional Water Quality Control Board (RWQCB) for the CWA Section 401 Certification and CWA 402 Water Quality Management Plan.



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FIGURE 1

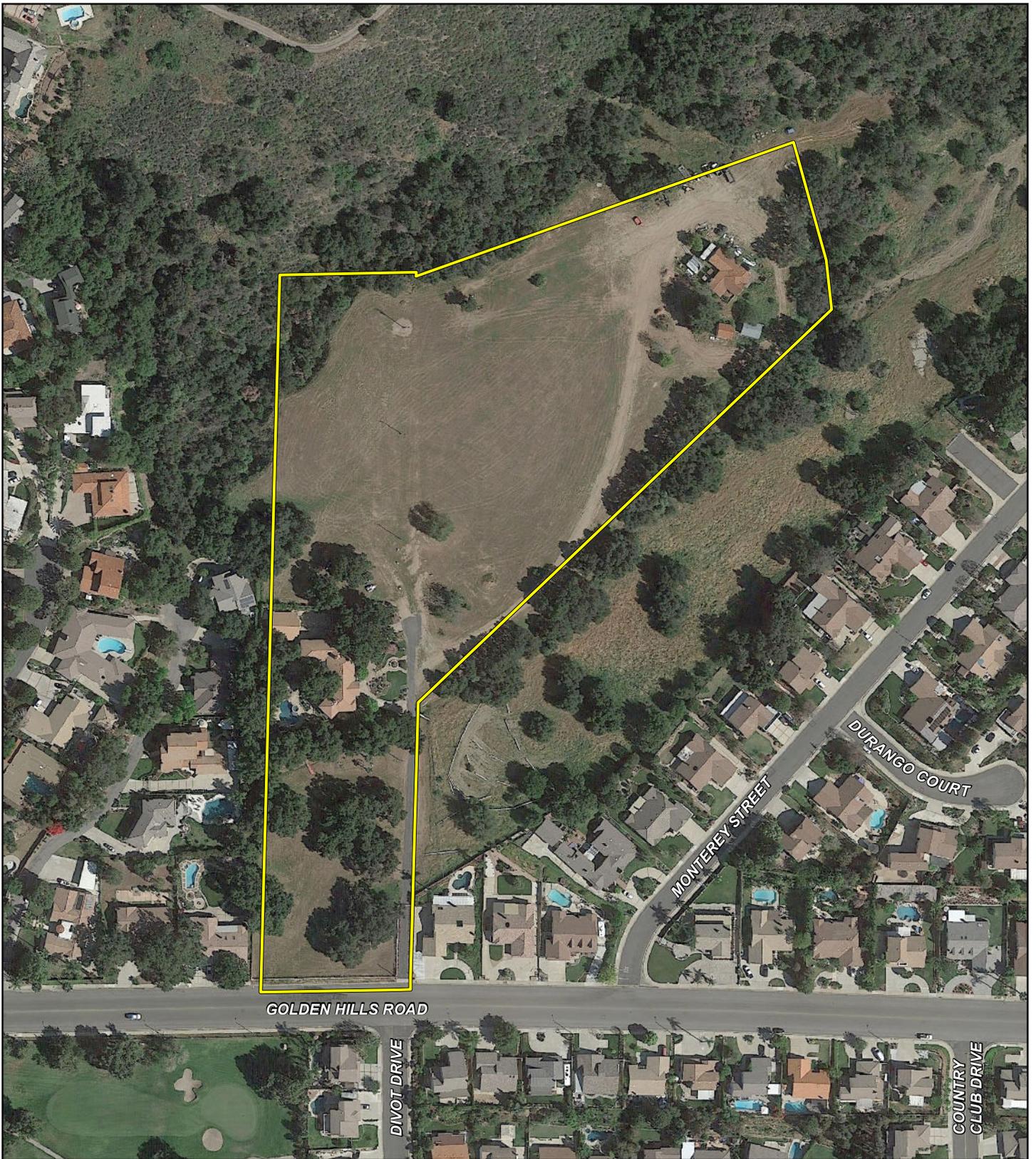


SOURCE: Bing Aerial, 2010; ESRI Streetmap, 2013.

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Sage Canyon Project – TTM71373
Initial Study/Mitigated Negative Declaration

Regional and Project Location



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FIGURE 2



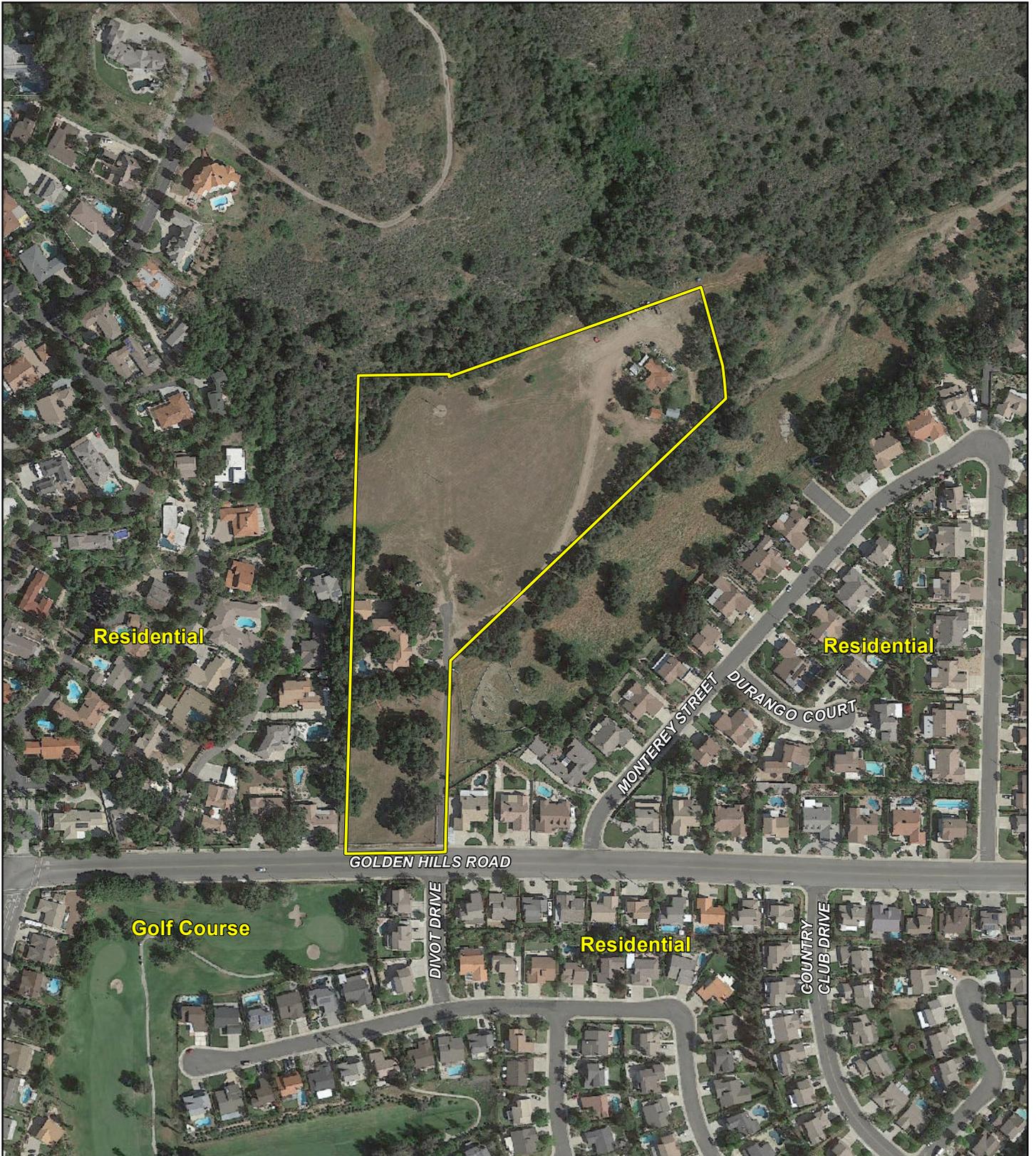
 Project Boundary



SOURCE: Google Earth, 2015.

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Site Location



LSA

FIGURE 3



 Project Boundary

0 150 300
FEET

SOURCE: Google Earth, 2015.

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Surrounding Land Uses



Photograph 1: *View looking north from the east central portion of the project site.*



Photograph 2: *View looking north from the north central portion of the project site.*

LSA

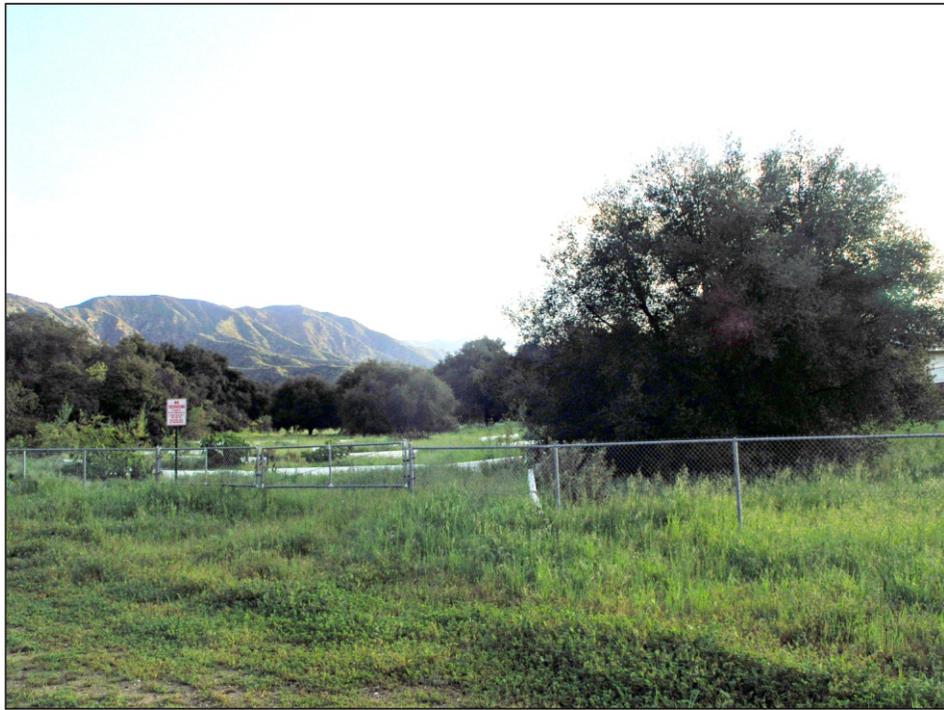
FIGURE 5A

*Sage Canyon Project – TTM71373
Initial Study/Mitigated Negative Declaration*

Site Photographs



Photograph 3: *View looking south from the north central portion of the project site.*



Photograph 4: *View looking northeast from the southeastern portion of the site.*

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FIGURE 5B

*Sage Canyon Project – TTM71373
Initial Study/Mitigated Negative Declaration*

Site Photographs



Photograph 5: *View looking southwest from the central portion of the site.*



Photograph 6: *View looking north across Golden Hills Road from south of the project site.*

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FIGURE 5C

*Sage Canyon Project – TTM71373
Initial Study/Mitigated Negative Declaration*

Site Photographs

ENVIRONMENTAL FACTORS AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions 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 potential 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

11/30/15

Date

Eric Scherer

Printed Name

ENVIRONMENTAL CHECKLIST AND DISCUSSION

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
I. AESTHETICS				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) According to the City’s General Plan Resource Management Element, scenic views within La Verne consist primarily of the San Gabriel foothills and mountains located in the northern portion of City (i.e., immediately north of the project site). The City of La Verne General Plan does not identify the project site as a scenic resource or as a public vantage point to view the scenic vistas located north of the site. However, the nearest scenic corridor is Golden Hills Road, including that portion adjacent to the project site. In addition, the nearest vista lookout point is at the western end of Golden Hills Road at the intersection of Wheeler Avenue. This view point looks west toward San Dimas Canyon Road.

The project would not substantially block scenic views of the San Gabriel Mountains as the nearest new residence would be set back from Golden Hills Road by approximately 570 feet. Because of this setback, the oak trees adjacent to Golden Hills would generally block views of the development from Golden Hills Road. Additionally, the proposed homes would be a mixture of single- and two-story homes that would not be taller than the mature oak trees located on the southern portion of the site. **For these reasons the proposed project would not impair existing views of scenic vistas and thus less than significant impacts would occur.**

b) The nearest state-designated scenic highway is State Route 2, located approximately 15.2 miles north of the project site. Golden Hills Road, which is adjacent to the project site, is designated a scenic corridor in the City’s General Plan Resource Management Element. The proposed project would not be visible from State Route 2, and as discussed in I.a) the proposed development will be set back away from Golden Hills Road and will not substantially block views in the project area. **Therefore, the project would have a less than**

significant impact on scenic views from a State Highway or locally designated scenic roadway.

The project site contains 79 coast live oak trees, which are considered Heritage Trees by the City of La Verne's zoning ordinance. Although the coast live oak trees are protected by the City's zoning ordinance, the project site and trees are not located within a scenic highway. **Therefore, the project would not substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway, and a less than significant impact would occur.** Impacts to the Heritage Trees on site are addressed in checklist question IV.e) below.

- c) The proposed project consists of residential development and associated infrastructure. While the construction of 12 residential homes within the project site would represent a change to the site's visual character, the proposed residential development would be generally consistent with on-site and surrounding residential development and would not include any features that would substantially degrade the appearance of nearby neighborhoods. Additionally, the majority of the existing oak trees will be preserved on site and thus will preserve some of the visual character of the site. The proposed project would be required to comply with Chapter 18.60 of the La Verne Municipal Code, including setbacks, building height, lot coverage, and landscaping. **Impacts related to changes in visual character would therefore be less than significant.**
- d) The project site presently contains two single-family homes that are minor sources of light on the site. Other sources of light in the area include street lighting along Golden Hills Road and Divot Drive, and residential lighting within the surrounding residential neighborhoods. Project implementation would result in increased lighting within the project site. At night, the project's interior and exterior building lights and landscape lighting would be visible from the adjacent residential dwellings, and to a lesser extent, from the surrounding public streets. However, these light sources would not have a significant impact on the nighttime sky, as they would not exceed existing background light levels already present as a result of the surrounding urban development. In addition, Section 18.36.180 of the City's Municipal Code requires that the City's Development Review Commission review the spacing, height, and intensity of light fixtures proposed for private interior streets. **Therefore, lighting impacts would be less than significant.**

Sources of glare as a result of project implementation would include reflective building materials, and vehicles parked within private residential parcels. The amount of glare would depend on the location of the reflective surfaces and the direction of the sun. Any glare produced by the reflective surfaces would be temporary, as the location of the sun would be changing throughout the day. The proposed residential dwellings, the private streets, and the driveways containing vehicles would be separated from Golden Hills Road by the existing mature oak trees that would minimize glare impacts resulting from any reflective surfaces. Residents east and west of the site would also be separated from the site by additional existing oak trees adjacent to the site. Residents east of the site are separated from the site by open space scattered with mature oak trees. Mountain Springs Ranch Road, which is located west of the site, would also not be affected by light or glare from the site due to the several hundred-foot difference in elevation between the site and the road.

No other roadways would be subjected to glare impacts resulting from project implementation given their physical separation from the project site. **Impacts from glare would therefore be less than significant.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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II. AGRICULTURE AND FOREST RESOURCES

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| a) The project site consists of three soil types: Hanford Gravelly Sandy Loam, Ramona Loam, and Upper San Gabriel River. The project area has not been inventoried by the Farmland Mapping and Monitoring Program (FMMP). Neither the project site nor adjacent land has been mapped as designated farmland under the FMMP. No impacts related to mapped or designated farmland would occur. | | | | |
| b-c) The project site is zoned for residential uses (PR1/5D and PR2D) and is not enrolled in a Williamson Act contract or zoned for agricultural and timber production. The proposed project would not conflict with any zoning designations designed to promote agriculture or timber production. No impacts related to agricultural zoning or preserves would occur. | | | | |
| d) Neither the site nor surrounding areas is used for timber production or is considered a forested area, and residential development is adjacent on three sides of the site. The general | | | | |

area consists of uplands with oak grasslands and scattered oak trees along the adjacent drainage channel. The aerial coverage of oak canopies on the southwestern portion of the site is over 50 percent; however, oaks are only located around the perimeter of the central and northern portions of the site, resulting in an overall coverage of less than 15 percent. In addition, most of the on-site oak trees will be preserved as outlined in the project arborist report. For these reasons, a registered forester is not required to be involved in the site design or review process for this project. The project would also not conflict with any zoning designations designed to preserve timber resource preservation as outlined in section II.b-c) above. **Therefore, no significant impacts related to forest land would occur.**

- e) The project site was previously used for citrus cultivation. The entire site is covered in Hanford Gravelly Sandy Loam Soil (HG). Active agricultural use of the site ceased between 1980 and 1994. Using the site for agriculture at this time would be considered infeasible for the following reasons: the current built-up nature of the project area (i.e., residential development on three sides of the site); the limited size and location of the project site to be able to be used for agriculture; and the high cost of water especially in light of the Governor’s recent drought restrictions. For these reasons, the development of the project site as single-family residences would not result in the conversion of Farmland to non-agricultural use. **This conversion of former agricultural land to rural residential use is considered a less than significant impact.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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III. AIR QUALITY

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward

the attainment of the ozone standard by generating emissions that equal or exceed the established long-term quantitative thresholds for pollutants, or exceed a State or Federal ambient air quality standard for any criteria pollutant. Table 1 shows the significance thresholds that have been recommended by the SCAQMD for projects within the South Coast Air Basin.

Table 1: SCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation
Mass Daily Thresholds		
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs) and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden >0.5 excess cancer cases (in areas ≥ 1 in 1 million) Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants^a		
NO ₂ 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (State) 0.03 ppm (State) and 0.0534 ppm (Federal)	
PM ₁₀ 24-hour average annual average	10.4 µg/m ³ (recommended for construction) ^b & 2.5 µg/m ³ (operation) 1.0 µg/m ³	
SO ₂ 1-hr average 24-hr average	0.25 ppm (State) & 0.075 ppm (Federal – 99 th percentile) 0.04 ppm (State)	
Sulfate 24-hour average	25 µg/m ³ (State)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (State) 9.0 ppm (State/Federal)	
Lead 30-day average Rolling 3-month average Quarterly average	1.5 µg/m ³ (State) 0.15 µg/m ³ (Federal) 1.5 µg/m ³ (Federal)	

^a Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, unless otherwise stated.

^b Ambient air quality threshold based on SCAQMD Rule 403.

lbs/day = pounds per day ppm = parts per million µg/m³ = microgram per cubic meter ≥ greater than or equal to

Source: SCAQMD, 2014, <http://www.aqmd.gov/ceqa/hdbk.html>

The analysis of air quality impacts conforms to the methodologies recommended in the SCAQMD's 1993 CEQA Air Quality Handbook. The regional construction emissions associated with development of the proposed project were calculated using the CalEEMOD Version 2013.2.2 (2013) software. The construction activities associated with development would generate diesel emissions and dust. Construction equipment that would generate criteria air pollutants includes excavators, graders, haul trucks, and loaders. Some of this equipment

would be used during both grading and construction. It is assumed that all of the construction equipment used would be diesel-powered.

Operational emissions associated with on-site development were estimated also using the latest CalEEMOD software. Operational emissions would consist of mobile source emissions, energy emissions, and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the project site associated with operation of on-site development. Emissions attributed to energy use include electricity and natural gas consumption for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings.

To determine whether a significant regional air quality impact would occur, the increases in emissions generated by the proposed project were compared with the SCAQMD's recommended regional thresholds for both construction and operational emissions. As stated above and detailed in Table 1, significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of the ozone standard by releasing emissions that equal or exceed the established long-term quantitative thresholds for pollutants, or exceed a State or Federal ambient air quality standard for any criteria pollutant.

In addition to the above thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the CEQA Air Quality Handbook. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that would not cause or contribute to an air quality exceedance of the most stringent applicable Federal or State ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, and distance to the sensitive receptor. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for oxides of nitrogen (NO_x), carbon monoxide (CO), particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}). LSTs are not applicable to mobile sources, such as cars on a roadway (SCAQMD, June 2003). As such, LSTs for operational emissions do not apply to on-site development, as the majority of operational emissions would be generated by cars on the roadways.

LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. The project site encompasses 11.4 acres, all of which is proposed for residential development. Due to the size of the site, it is unlikely that more than five acres would be under active construction at one time. Therefore, a five-acre assumption was used for the emissions modeling. According to the SCAQMD's publication, *Final Localized Significant Thresholds Methodology*, the use of LSTs is voluntary, to be implemented at the discretion of local agencies. LSTs for construction on a five-acre site in are shown in Table 2 at various distances from sensitive receptors. The City of La Verne falls under SRA 10, Pomona/Walnut Valley, and therefore the LST thresholds shown in Table 2 correspond to this SRA area.

Table 2: SCAQMD Local Significance Thresholds for Construction

Pollutant	Allowable emissions as a function of receptor distance in feet from a 5-acre site (lbs/day)				
	25 Meters	50 Meters	100 Meters	200 Meters	500 Meters
Gradual conversion of NO _x to NO ₂	236	265	226	330	381
CO	1,556	2,158	3,691	7,011	23,450
PM ₁₀	12	36	51	82	175
PM _{2.5}	7	9	15	28	93

Source: SCAQMD, October 2009, <http://www.aqmd.gov/CEQA/handbook/LST/appC.pdf>.

a) According to SCAQMD Guidelines, to be consistent with the Air Quality Management Plan (AQMP), a project must conform to the local General Plan and must not result in or contribute to an exceedance of the City’s projected population growth forecast. According to data provided by the California Department of Finance (DOF), the population of the City of La Verne is 33,042 persons, and the City’s average household size is 2.72 residents (DOF, 2013). Using the City’s average household size of 2.72 persons per household, the project could increase the City’s overall population by approximately 33 residents (12 units × 2.72 persons/unit). This equates to less than 1.3 percent of the City’s total projected population growth through 2035. The proposed project would require a zone change on a portion of the site, but the overall change from PR1/5D to PR2D uses on this site would represent an incremental or negligible change in the planned population or housing growth of the City. Therefore, the project would not contribute to an exceedance of the City’s projected population growth forecast. **The project’s potential impact on the regional air quality management plan would be less than significant.**

b-c) The proposed single-family residences would generate an estimated 133 total daily vehicle trips and 25 peak hour trips (LSA 2015, Table A, see Appendix E). As discussed in Section XVI, *Transportation and Traffic*, this increase in traffic related to project operations would not cause a significant impact at area intersections and therefore not permanently increase the concentrations of pollutants (such as carbon dioxide) above the applicable State and Federal thresholds.

Project construction would generate temporary air pollutant emissions during construction and long-term operational emissions due to energy use. Both construction and operational emissions associated with the proposed project are discussed below.

Construction Emissions

Construction vehicles and equipment traveling along unpaved roads, grading, trenching, and stockpiled soils have the potential to generate fugitive dust (PM₁₀ and PM_{2.5}) through the exposure of soil to wind erosion and dust entrainment. In addition, exhaust emissions associated with the operation of heavy construction equipment could potentially degrade

air quality. Project-related construction activities would also emit ozone precursors (e.g., NO_x and reactive organic gases (ROG)) as well as CO. The majority of construction-related emissions would result from site preparation and grading due to the use of heavy duty construction equipment. Air pollutants would also be emitted during building construction due to the evaporation of ROGs during the application of architectural coatings (paint) to the building exteriors.

CalEEMod calculates construction emissions during the various phases of project construction, including demolition, building construction, site preparation, grading, paving, and architectural coating. As indicated in Table 3, maximum daily emissions from construction activities would not exceed any SCAQMD construction thresholds.

Table 3: Estimated Maximum Unmitigated Construction Emissions (lbs/day)

	Unmitigated Emissions (lbs/day)				
	VOC	NO _x	CO	PM ₁₀	PM _{2.5}
Overall Construction Maximum Daily Emissions ¹	41	75	51	10	6.6
SCAQMD Pollutant Thresholds	75	100	550	150	55
Threshold Exceeded?	No	No	No	No	No

¹ Maximum daily emissions account for the overlap of construction phases. These values represent the worst-case scenario. Maximum daily emissions would not occur each day of the construction period.

Source: CalEEMod calculations, see Appendix B.

Additionally, adherence to applicable provisions of Rule 403, including the implementation of Best Available Control Measures (BACMs) can reduce fugitive dust emissions by 50 percent or more. These measures may include, but are not limited to:

- Apply nontoxic chemical soil stabilizers according to manufacturers’ specifications to all inactive construction areas (i.e., previously graded areas inactive for 10 days or more).
- Water active sites per applicable requirements detailed in SCAQMD Rule 403. Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two (2) feet (0.6 meters) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code (CVC) Section 23114.
- Pave construction access roads at least 100 feet (30 meters) onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.
- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard).
- Use “Green Building Materials,” such as those materials that are rapidly renewable or resource efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project, as defined on the CalRecycle website.

Because construction-related activity would not produce air pollutant emissions in excess of established SCAQMD thresholds and because fugitive dust emissions would be controlled

through implementation of applicable provisions of SCAQMD Rule 403, **construction-related emission impacts of the project would be less than significant.**

Operational Emissions

Long-term operational emissions associated with the proposed project are those attributed to vehicle trips (mobile emissions), the use of natural gas (energy emissions), consumer products, architectural coatings, and landscaping equipment (area emissions). CalEEMod was used to calculate emissions based on the land uses for the proposed project and the number of vehicle trips generated by development. As shown in Table 4, overall emissions would not exceed SCAQMD operational thresholds. **Therefore, operational-related emission impacts associated with the proposed project would be less than significant.**

Table 4: Estimated Operational Emissions (lbs/day)

Emission Source	VOC	NO _x	CO	PM ₁₀	PM _{2.5}
Area	8.8	0.014	1.2	0.025	0.025
Energy	0.012	0.11	0.045	0.0085	0.0085
Mobile	0.51	1.5	5.8	1.0	0.28
Total Emissions	9.3	1.6	7.0	1.0	0.31
SCAQMD Thresholds	55	55	550	150	55
Exceeds Threshold?	No	No	No	No	No

Source: CalEEMod calculations, see Appendix B.

- d) Table 5 shows the project’s estimated on-site construction and operational emissions compared to SCAQMD’s LSTs. The nearest sensitive receptors with respect to the LSTs are the residences approximately 50 feet southeast and west of the project site. For this analysis, it is assumed single-family residential dwellings are located within 80 feet of the proposed grading boundary. Therefore, LSTs were evaluated using a distance of 25 meters, or 80 feet. The thresholds are relative only to those emissions that occur within a five-acre area, such as on-site grading emissions or stationary source emissions, and do not apply to off-site mobile emissions. As shown in Table 5, LSTs would not be exceeded during project construction or occupancy. **Therefore, localized construction impacts would be less than significant.**

Table 5: Project-Related Criteria Pollutant Emissions (lbs/day) Compared to SCAQMD Localized Significance Thresholds

Pollutant Source	CO	NO _x	PM ₁₀	PM _{2.5}
Construction	49	75	10	6.6
Occupancy	1.5	0.089	0.075	0.039
Localized Significance Threshold	1,566	236	12	7
Threshold Exceeded?	No	No	No	No

Source: Air Quality and Greenhouse Gas Impact Analysis La Verne Sage Canyon, see Tables I and K, Appendix B.

- e) The proposed project would be used for residential purposes and would not generate objectionable odors. Diesel exhaust and volatile organic compounds (VOCs), which are

objectionable to some, would be emitted during construction of the proposed project. However, these emissions would be short-term in duration and would disperse rapidly from the project site. As such, odors from heavy equipment operation should not reach an objectionable level at the nearest sensitive receptor. **Impacts related to odors would be less than significant.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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IV. BIOLOGICAL RESOURCES

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 or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) The proposed project site is located within the San Gabriel Watershed, which is bounded by the San Gabriel Mountains to the north, San Bernardino/Orange County to the east, the division of the Los Angeles River from the San Gabriel River to the west, and the Pacific Ocean to the south. The total area of the watershed is approximately 640 square miles. These ephemeral drainages convey flows into the San Dimas Golf Course Spillway, which flows into Puddingstone Reservoir. Waters released from the reservoir flow into Walnut Creek which is tributary to the San Gabriel River, which then conveys water west and ultimately into the Pacific Ocean, a Traditional Navigable Water (TNW). A large natural drainage channel defines the southeastern boundary of the site but is not part of the proposed development except for a 1.9-acre portion just north of Golden Hills Road at Divot Drive. This area has historically flooded both on-site and downstream properties during large storm events.

The City of La Verne is currently working with the San Gabriel Mountains Regional Conservancy and the County of Los Angeles to identify funding and partnering opportunities that may result in the acquisition, restoration, and preservation of open space for the benefit of wildlife and plant habitats, as well as residents and outdoor enthusiasts. The City currently owns land immediately north of the proposed project site, as well as the drainage channel along the southeast boundary of the project site (see Figure 6).

The property supports disturbed non-native grassland with oak woodlands around the periphery of the project. Due to historical and ongoing human disturbance on the site, a number of non-native grasses and weedy plant species typical of disturbed areas are present. Typical weeds on site include ripgut or red brome (*Bromus* spp.), wild oat (*Avena* spp.), Jimson weed (*Datura stramonium*), common sunflower (*Helianthus* spp.), fescue (*Vulpia* spp.), shortpod mustard (*Hirschfeldia incana*), barley (*Hordeum* spp.), tree tobacco (*Nicotiana glauca*), and telegraph weed (*heterotheca grandiflora*).

According to the California Natural Diversity Database (CNDDDB) maintained by the California Department of Fish and Wildlife, there are no listed species within or adjacent to the project site. Two listed plant species and five listed animal species were reported in the region but not in proximity to the project. None of the listed plant species or plants with other special status would have potential to occur on the project site. The majority of the animal species of concern would not occur within the project area and none of the listed animals have potential to occur within the project. These plant and animal species are unlikely to occur within the project because they are associated with heavy clay soils, lower elevation coastal sage scrub, aquatic/wetland habitats, rocky alluvial washes, or higher elevation forest habitat types. These habitat types do not occur near or within the project. Two non-listed animal species of concern with high potential to occur are associated with live oak woodland. These are oak titmouse (*Baeolophus inornatus*) and Nuttall's woodpecker (*Picoides nuttallii*). Two additional non-listed animal species of concern have moderate potential for the Yuma myotis (*Myotis yumanensis*) and the hoary bat (*Lasiurus cinereus*) to occur within the project because of roosting habitat in the trees, woodland areas, and abandoned buildings. There is a water source for the bats within reasonable flight distance from the project (see Appendix F and Figures 6 and 7). However, due to the historical and ongoing disturbance of the site (e.g., occupied housing and ongoing weed abatement for fire protection), there is little or no potential for any listed species of plants or animals or any sensitive plants to be present on the project site.



LSA

- Project Boundary
- Existing Coast Live Oak Trees to be Protected in Place
- Existing Coast Live Oak Trees Proposed for Removal
- City of La Verne
- Limit of 100' Wide Offsite Fuel Modification Zone
- Recreation - Golf Courses
- Natural Areas and Wildlife Sanctuaries
- Parks and Gardens
- National Monuments and Forests

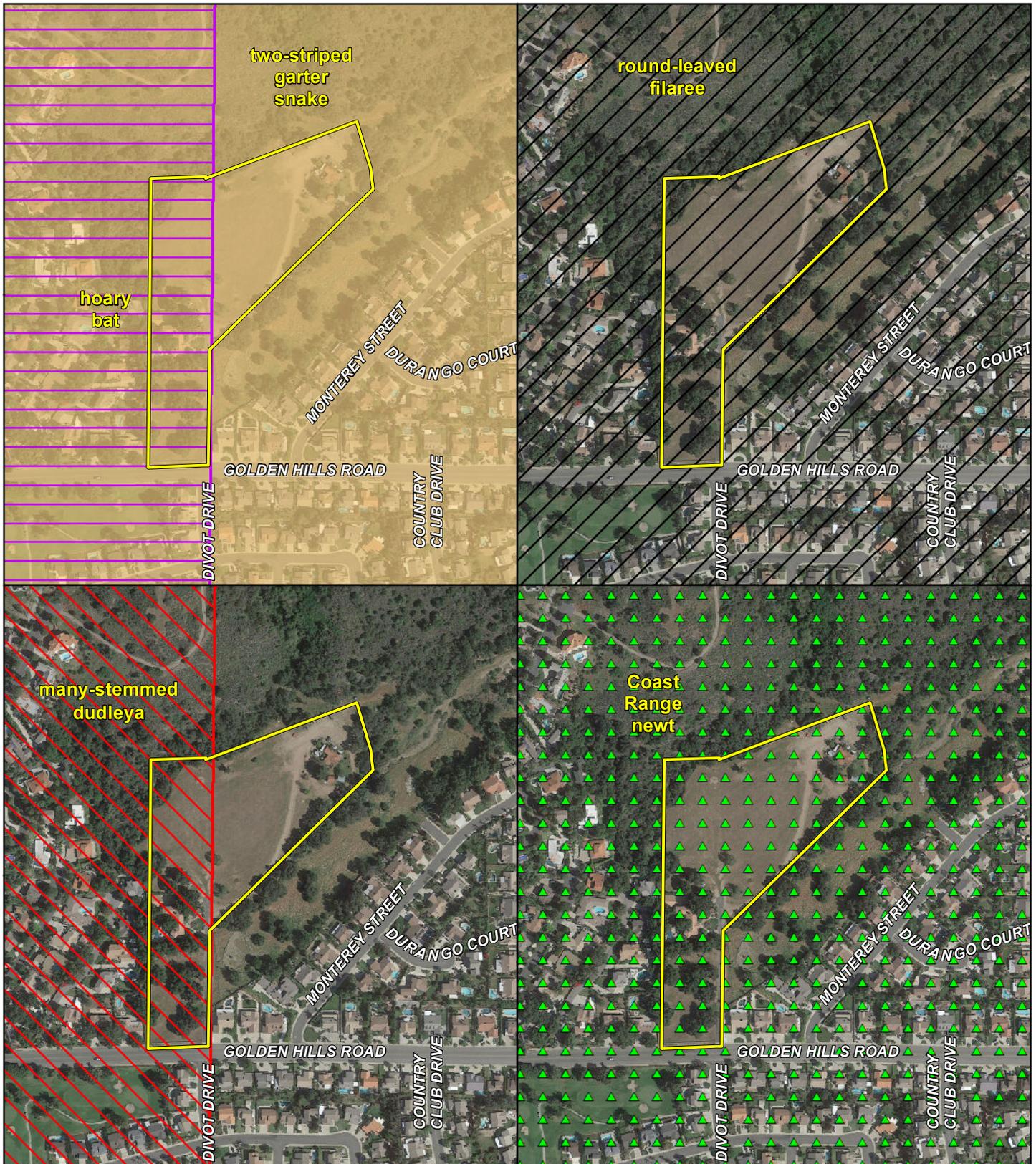
FIGURE 6

*Sage Canyon Project – TTM71373
Initial Study/Mitigated
Negative Declaration*

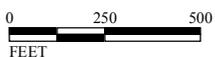
Biological Constraints Map

SOURCE: Bing Aerial, 2015; LA County, 2015

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LSA



SOURCE: Google Earth, 2015;
CNDDDB, 2014

-  Project Location
- CNDDDB Species June 2014**
-  Lasiurus Cinereus: Hoary Bat
-  Thamnophis Hammondi: Two-striped Garter Snake
-  California Macrophylla: Round-leaved Filaree
-  Dudleya Multicaulis: Many-stemmed Dudleya
-  Taricha Torosa: Coast Range Newt

FIGURE 7

Sage Canyon Project – TTM71373
Initial Study/Mitigated Negative Declaration
Species Occurrences

The project site is located in the San Gabriel foothills, and large mammals including black bear (*Ursus americanus californiensis*), mule deer (*Odocoileus hemionus*), bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*), and coyote (*Canis latrans*) may traverse the site and even use the site and general area at times for foraging. However, these activities would be restricted by the ongoing presence of humans and their activities (e.g., driving on the site). In addition, raptors, burrowing owl (*Athene cunicularia hypugaea*), and several species of small songbirds may have potential to exist on the project site or be present in the surrounding area.

As designated by CAL FIRE, the project site is located within a Local Responsibility Area - Very High Fire Hazard Severity Area.¹ Adjacent wildlands to the north would potentially pose a wildfire threat for residents of the proposed project, so the proposed project would be required to comply with the requirements of Chapter 15.37 of City Municipal Code: Very High Fire Hazard Severity Zone Regulations. Prior to the issuance of a grading permit, the applicant would be required to submit fuel modification plans to the City. Residential homes built under the proposed project would be subject to special building standards, which would reduce fire hazards to residents. However, these fuel modification plans would incrementally reduce or eliminate native vegetation on the slopes north of the project site. This incremental loss of habitat would affect local wildlife, but mitigation might help reduce potential impacts in this regard.

Mitigation Measures. A number of CNDDDB bird species for this area are subject to the Migratory Bird Treaty Act (MBTA), and so mitigation is needed to ensure there will be no significant impacts to these species. The project will not affect any state or federally listed plant or animal species. Four animal species of special concern with association with coast live oak woodland habitat requirements have moderate to high potential to occur with the project site. Rare plant species of special concern reported in the region are unlikely to occur on the project site due to disturbance or unsuitable growing conditions. To mitigate these impacts, avoidance of take of protected bird and bat species during breeding season will be implemented through Mitigation Measures BIO-1, BIO-2, and BIO-3. The project will also avoid impacts to the oak woodland habitat to greatest extent possible, and planting of additional trees to compensate for limited tree removal, thinning, and pruning will be implemented through Mitigation Measure BIO-4.

BIO-1 Pre-construction Raptor and other Nesting Bird Surveys. Within 30 days prior to the commencement of construction (if between January 15 and September 1), a qualified biologist will perform a raptor nesting survey that will consist of a single visit to ascertain whether there are active raptor and other protected bird nests within 300 feet of the project footprint. Nests will be searched for in the abandoned buildings or other unused structures, and trees and shrubs. This survey will also identify the species of nesting raptor and to the degree feasible, nesting stage (e.g., incubation of eggs, feeding of young, near fledging). Nests will be mapped (not by using GPS because close encroachment may cause nest abandonment). Avoid work in riparian areas during active breeding season; typically designated as February 15 through

¹ CAL FIRE, Very High Fire Hazard Severity Zones in LRA: Los Angeles County, http://frap.fire.ca.gov/webdata/maps/los_angeles/LosAngelesCounty.pdf (Accessed October 26, 2015).

August 30 by the CDFW Guidelines. If vegetation removal must occur during this avoidance period, then a nest survey by a qualified biologist is required. The nest survey shall be conducted for five consecutive days and no more than three days prior to clearing. If an active nest is observed, then the nest location shall be fenced off surrounding an adequate radius buffer zone as determined by biological monitor; the buffer zone shall not be disturbed until the nest is inactive; biological monitoring will occur during vegetation removal activities.

BIO-2 Burrowing Owl. To ensure direct mortality of burrowing owls is avoided, a pre-construction survey will be conducted within 30 days prior to ground disturbance at the site. The pre-construction survey shall be prepared by a qualified biologist and submitted to the City. This survey shall be required and conducted no more than 30 days prior to initiation of ground-disturbing activities. If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the study area during the 30-day pre-construction survey, consultation with the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) shall take place and no construction activity shall take place within a buffer zone of adequate width as determined in consultation with CDFW during the breeding season of an active nest/burrow until it has been determined that the nest/burrow is no longer active and all juveniles have fledged the nest/burrow. No disturbance to active burrows shall occur without appropriate permitting through the USFWS and/or CDFW.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, passive relocation may be conducted following consultation with the CDFW and USFWS. If active nests are identified in a development area, the nests shall be avoided or the owls actively or passively relocated to an appropriate off-site location, to the satisfaction of the USFWS or the CDFW. To avoid active nests adequately, no grading or heavy equipment activity shall take place in a buffer zone of adequate width as determined in consultation with CDFW during the breeding season (February 1 through August 31). This measure shall be implemented to the satisfaction of the City Community Development Department. If active burrowing owl burrows are detected outside the breeding season, passive and/or active relocation may be undertaken following consultation with and approval by the CDFW and/or USFWS. One-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied and backfilled to ensure that animals do not reenter the holes/dens. This measure shall be implemented to the satisfaction of the City Community Development Department.

BIO-3 Pre-construction Bat Survey. To prevent impacts on daytime bat roosts and maternity roosts, a qualified biologist will be retained to conduct bat and bat

roosting site surveys prior to commencement of mature tree removal activities. This pre-construction survey will be conducted at any mature tree proposed for removal and within 100 feet of the project limits. If roosting sites, such as vacant farm buildings, or bats are not found, a report confirming their absence will be sent to the CDFW and no further mitigation will be required.

If the pre-construction survey finds bats to be roosting, and tree removal is scheduled to occur between October 1 and March 30 (outside of the maternity season of April 1 through September 30), the bats will be evicted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFW. These techniques allow the bats to exit the roosting site but prevent reoccupation of the site. Where applicable for tree roosts, the following two-step cutting process would occur: Surrounding branches that do not house bats at the time that the eviction would occur would be removed as step one. This would alter the condition of the roost tree, causing bats to abandon the roost. The tree can then be fully removed as step two. A visual inspection of the roost tree would be required prior to removal to verify that all bats have been successfully excluded. This work will be completed by bat exclusion professional.

If the pre-construction survey finds bats to be roosting and tree removal is scheduled to occur during the maternity season (April 1 through September 30), a qualified biologist will monitor the roost to determine if the roost site is a maternal roost. This may be determined by either visual inspection of the roost for bat pups, if possible, or monitoring the roost after the adults leave for the night to listen for bat pups. If the roost is determined to not be a maternal roost, then the bats will be evicted as described above. If the roost is determined to be a maternal roost, eviction of a maternal roost cannot occur during the nursery season, as bat pups cannot leave the roost until they have reached maturity. In this case, a buffer zone of adequate width as determined in consultation with CDFW will be established around the roosting site, within which no construction-related impacts will occur until the qualified biologist has determined the bat pups are mature enough to permanently leave the roost.

BIO-4

Oak Tree Protection Plan. Trees should receive protective fencing along the outer perimeter of the canopy drip line (orange 36-inch high plastic type).

- To compensate for the removal of significant trees, the applicant shall replace trees at a 4:1 mitigation ratio. The relocation and/or replacement of any trees shall be shown on the project's approved landscape plans prior to issuance of a grading permit. The trees shall be planted on site, per the landscape plans, prior to issuance of a certificate of occupancy for the first residential unit. In addition,
- If there will be driving near or under the drip line, the installation of wood chips with overlaying plywood will help decrease the potential compaction of the soil.

- Any work, excavation or intrusion within the fenced areas requires prior authorization from project arborist.
- Scheduled arborist inspections and construction personnel information session to be a part of the overall project master schedule.
- The City Municipal Code (section 18.78.060) provides a replacement schedule based upon DBH caliper of any significant tree being removed.
- Care should be taken to avoid impacts to root systems and overhanging branches. Protection during grading and construction activities is imperative. California live oaks do well during times of drought but grow quickly when groundwater is available. Also, being natives, the trees need very little care and thrive when they are not manipulated. Considering this, house placement and development is essential to the health of the trees. The only care needed on the current trees is the removal of all foreign soil above the root crown on the southern end of the property. After foreign soil is removed, oak leaves shall be allowed to cover the drip line to reinstate the soil to its natural condition.
- Pruning shall be performed by or supervised by a certified arborist in accordance with OSHA and ANSI A300 Standard Practices.

With implementation of Mitigation Measures BIO-1 through BIO-4, the project will have less than significant impacts on listed or otherwise sensitive species of plants or animals.

b-c) The project site contains three drainage features, as identified in the Jurisdictional Delineation Report prepared for the project. Drainage 1 is located in the northwest section of the property and drains in a southwest direction. Drainage 2 is located approximately 250 feet south of Drainage 1 and drains from east to west. The southernmost drainage feature (Drainage 3) begins east of Divot Drive and goes under the road draining from the east to the southwest.

All three drainages are earthen ephemeral drainages with defined beds and banks. The drainages each display a high water mark and each is ultimately tributary to the San Gabriel River. Vegetation growing on the bed and bank is non-native annual grasses (*Bromus* sp.) and the canopy cover vegetation is oak woodland consisting of coast live oak trees (*Quercus agrifolia*) and scrub oak (*Quercus dumosa*).

All wetland areas, wetland buffer areas, and non-wetland waters of the U.S. are considered sensitive. Jurisdictional waters of the U.S. and State of California, including wetlands are regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB), pursuant to Sections 404 and 401 of the Federal Clean Water Act, respectively. Jurisdictional waters that also qualify as streams, lakes, or riparian habitat are regulated by the CDFW pursuant to Section 1602 of the California Fish and Game Code. Isolated waters, including wetlands that do not have a Significant Nexus to a Traditional Navigable Water are typically not subject to USACE jurisdiction; however, they are still regulated by the RWQCB (under the Porter- Cologne Water Quality Control Act) and also regulated by the CDFW for those features that qualify as streams, lakes or riparian habitat.

None of the three drainages satisfies the USACE definition of a wetland due to lack hydrophytic vegetation, hydric soils, and wetland hydrology. Due to having an Ordinary High Water Mark (OHWM) and being ultimately tributary to the San Gabriel River, the drainages are considered non-wetland waters of the United States as defined by USACE. The drainages are also considered to meet criteria for CDFW jurisdiction. The total potential Federal jurisdiction (USACE) within the study area is 0.04 acre of ephemeral waters. The total area of State (CDFW) jurisdiction including the riverine vegetation is 0.77 acre of associated riparian vegetation consisting of oak woodland. Loss of these jurisdictional resources require mitigation through subsequent permitting through the resource agencies (see Mitigation Measures BIO-6 and BIO-7).

To the extent feasible, riparian vegetation (oak woodland) and drainages would be preserved under the proposed project. Impacts to oak woodland are discussed in greater detail in section IV.e). **Since grading and developing of the project site may result in temporary and permanent impacts to riparian vegetation, impacts are considered significant and mitigation is required.**

Mitigation Measures. The project will avoid fill and removal of trees and shrubs within the jurisdictional areas to greatest extent possible. An oak tree protection plan and City permit is required prior to clearing or trimming oak trees on a proposed development project per Mitigation Measure BIO-5. A USACE and CDFW habitat mitigation plan is required to revegetate and replace permanent impacts to waters and streambed and riparian/riverine vegetation at 1:1 to a 3:1 ratio per Mitigation Measures BIO-6. The project will impact jurisdictional areas and these impacts are addressed by Mitigation Measures BIO-6 and BIO-7.

BIO-5 Protection of Other Significant Trees. The applicant shall hire the services of a City-approved tree monitor during construction activities. The applicant will also need to obtain a tree removal permit prior to tree removal or pruning (if applicable) consistent with Chapter 18.78 of the City's Tree Protection and Preservation Code (City 18.78). This measure shall be implemented to the satisfaction of the City Community Development Department. Refer to Table B-1 in Appendix B of this report for a list of other City Significant Trees.

BIO-6 Replacement of Riparian Habitat. To the greatest extent feasible, the project applicant will mitigate the riparian habitat on site through either avoidance or on-site creation of biologically equivalent or superior habitat to ensure replacement of any lost function or value of the habitat. The applicant shall provide on-site habitat at a minimum ratio of 1:1. If on-site mitigation is determined to be insufficient by the resource agencies, the applicant shall mitigate any residual on-site impacts to riparian habitat by funding off-site restoration activities at a minimum ratio of 3:1. The restoration will be done through a conservation group acceptable to the CDFW to ensure high quality habitat is preserved or restored within the same watershed as the impact area. The applicant shall obtain a Lake and Streambed Alteration Agreement to document implementation of this mitigation.

BIO-7 Jurisdictional Impacts and Agency Permitting. Prior to issuance of a grading permit, the developer shall obtain the necessary Clean Water Act Nation-Wide Permit from the U.S. Army Corps of Engineers, a Clean Water Act Certification from the Los Angeles Regional Water Quality Control Board, and a Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife. These permits will address impacts to identified jurisdictional land on the project site. The developer shall demonstrate to the City Planning Department that these permits have been obtained prior to issuance of a grading permit.

- d) The property came under private ownership in 1876 under a homestead grant. For nearly 140 years the land has been cultivated and occupied or otherwise disturbed by human activity. While the project site has been repeatedly disturbed by human activity, it does contain 79 coast live oak trees (see Appendix F). These trees provide habitat and may support avian nesting as well as periodic roosting or perching opportunities for birds, including raptors. The site is not located within a known migration corridor, native tree preservation area, or native wildlife nursery per the City of La Verne General Plan. Due to the site's location, it is likely that local wildlife regularly move through the natural drainage along the eastern boundary of the site, as well as through the natural areas and vegetation immediately north of the site. The on-site vegetation likely provides nesting and foraging opportunities for birds, small reptiles, and small mammal (mainly rodent) species. Due to its location, **the project has the potential to negatively affect wildlife movement, but implementation of Mitigation Measures BIO-8 and BIO-9 will help reduce potential impacts in this regard to less than significant levels.**

Mitigation Measures. It is possible that tree relocation and removal activities related to the project could affect migratory or nesting birds that would be subject to the MBTA. **Potential impacts to migratory or nesting raptors, birds, and bats from removal of oak trees would be reduced to less than significant levels by implementation of Mitigation Measures BIO-1 through BIO-7.** In addition, **Mitigation Measures BIO-8 and BIO-9** will help reduce potential direct and indirect impacts due to the project's location at the urban-wildland interface.

BIO-8 Urban-Wildland Impact Minimization Measures. Prior to construction, a temporary exclusionary fence will be installed between the work area and natural areas to be avoided during any mass grading activities.

Permanent fencing shall be installed around each residence to separate developed areas from the wildland/conservation areas to the north (uplands) and southeast (drainage channel). The design and location of fencing for each residence shall be at the discretion of the City during precise plan review.

Shielding shall be incorporated in project lighting designs to ensure that ambient lighting in natural open space areas and creeks is minimized as feasible. Night lighting shall be directed away from habitat areas during and after construction. Residential noise standards shall apply to projects located adjacent to natural open space and wildlife habitat areas. Undesirable State-listed invasive plants in the existing landscaping will be removed, wherever

possible, and replaced with native and drought-tolerant plants, as noted in City ordinances refer to Table B-2 in Appendix B of this report. Also, refer to Cal-IPC website for alternative landscaping plant selections (<http://www.cal-ipc.org/landscaping>).

All runoff from the newly built-out, paved and landscaped areas shall be directed to permanent storm water facilities within the community infrastructure. Erosion-control measures include leaving existing vegetation in place where feasible, use of temporary erosion control measures at regular intervals throughout the rainy season, stabilizing non-active areas, and use of designated entry points, tire wash stations, street vacuuming, dust suppression, silt fencing, sandbags, gravel bag berms, erosion-control blankets, hydroseeding using native plant species, and swales in concentrated flow areas per the Storm Water pollution Prevention Plan (SWPPP). Permanent erosion-control measures will be installed as part of the landscaping completion at end of construction.

Additional measures related to grading and land development are as follows: Vehicle repair will occur off site or in designated separate maintenance areas located away from drainage courses. Drip pans and spill kits will be used in the construction site and staging areas. Firefighting equipment (fire extinguishers) will be available on site.

BIO-9 Wildland Urban Interface and Fire Precautions. Prior to issuance of an occupancy permit, the developer shall prepare a Fuel Modification Plan for review and approval by the City of La Verne with input from the City Fire Department. The Plan shall include, but not be limited to, the height, design, and materials of project fencing, the extent of vegetation clearing (including oak tree trimming or removal) along the boundaries of the site (up to 200 feet from planed residences), and long-term maintenance responsibilities and funding (as outlined in the project Biological Resources Report by LSA Associates, Inc. dated October 2015). This measure shall be implemented to the satisfaction of the City Planning Department in consultation with the City Fire Department.

- e) The City of La Verne has adopted Ordinance No. 999 Preservation, Protection, and Removal of Trees (Municipal Code Chapter 18.78), which establishes regulations regarding tree preservation, protection, and the removal of trees. The purpose of this ordinance is to “protect certain trees in order to preserve cultural heritage, maintain and enhance the scenic beauty of the city, improve air quality, abate soil and slope erosion, preserve and enhance property values, and thereby promote public health, safety and welfare.” The tree ordinance only applies to “Heritage” and “Significant” trees. Pursuant to the City’s Oak Tree Ordinance, no “Heritage” trees are located on site. “Significant” trees are defined as any tree located on a parcel of private or public property that has a caliper of 8 inches or more and is of the following species: deodar cedar (*Cedrus deodara*), camphor tree (*Cinnamomum camphor*), all oak species (*Quercus* sp.), sycamore trees (*Plantanus racemosa*), and southern California black walnut (*Juglans californica* var. *californica*). A tree with a caliper of 30 inches

or more shall require additional space as determined by the city landscape architectural consultant or parks director (Municipal Code Section 18.78.160).

A Certified Arborist Report was prepared for the project in May 2015, which identified 79 coast live oaks on the site. The site also contains California scrub oak trees; however, none was large enough to be considered significant. The coast live oaks were generally considered to be in good condition, rated at 90 out of 100 by the report. The trees are mostly clustered along the perimeter and in the southern portion of the site. Due to the location and good health of the trees, up to six of the trees would potentially be removed by the proposed project. All of these trees are considered significant under the City Tree Ordinance.

The proposed tree preservation and limited removal action would be consistent and not conflict with Section 18.78.010 of the City’s Municipal Code, which establishes the purpose of the City’s Tree Protection Ordinance. The project would conform to the Tree Protection Plan outlined by the report. Nevertheless, **the proposed elimination of up to six “significant” trees is considered a potentially significant impact, but impacts would be reduced to less than significant levels after implementation of Mitigation Measures BIO-4 through BIO-5.**

- f) The proposed project site is not within any habitat conservation plans or any other regional planning areas. Therefore, it will not conflict with the provisions of any adopted local or regional conservation plans. **No impacts to established habitat conservation plans would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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V. CULTURAL RESOURCES

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) The project site contains two existing residences, which will initially remain as part of the development. The house located in the southern portion of the site was built in the 1920s but was refurbished in 1997. The house in the northern portion of the site was built in the early

1960s. No other structures exist on site. Both houses will remain on the site and not be subject to significant impacts by the proposed project. However, one of the houses may be refurbished in the future. Because the project would not result in the damage, demolition, or removal of any buildings eligible for the National Register of Historic Places or the California Register of Historical Resources, the project would have **no impact to historic resources**.

- b) According to the City's General Plan, ground disturbance in northern La Verne has the potential to result in impacts to archaeological resources. Although no archaeological resources have been identified on site, project construction has the potential to disturb undiscovered archaeological resources during grading. **This is a potentially significant impact, but it would be reduced to a less than significant level after implementation of Mitigation Measure CUL-1.**

CUL-1 Prior to the issuance of a grading permit, the City shall contact local Native American tribal groups to determine if they are interested in monitoring project grading. The applicant shall allow Native American tribal representatives access to the project site to monitor grading if they so desire.

If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor shall halt work within a 100-foot radius around the find and a qualified archaeologist shall be retained to assess the significance of the find. If a significant archaeological resource(s) is discovered on the property, ground-disturbing activities shall be suspended within 100 feet of the resource. The archaeological monitor and representatives of the appropriate Native American tribe(s), the Project Applicant, and the City Community Development Department shall confer regarding mitigation of the discovered resource(s). A treatment plan and/or preservation plan shall be prepared by the archaeological monitor and reviewed by representatives of the appropriate Native American Tribe(s), the Project Applicant, and the City Community Development Department and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the project site to the culturally affiliated Native American Tribe(s) for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the Community Development Department and the appropriate Native American Tribe(s). All cultural material, excluding sacred, ceremonial, grave goods, and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include one or more representatives of affected Native American tribal groups under the requirements of AB 52.

- c) Construction of the project would not result in impact, either directly or indirectly, to any known unique paleontological resource or site of unique geologic features. Given the site's history of disturbance due to the existing homes, the potential for undiscovered paleontological or geological resources is considered low. However, ground-disturbing activities at the project site still have the potential to disturb previously unknown resources. **With implementation of Mitigation Measure CUL-2, a less than significant impact to paleontological resources would occur.**

CUL-2 If paleontological resources (fossils) are discovered during project grading, work will be halted in that area until a qualified paleontologist can be retained to assess the significance of the find. The project paleontologist shall monitor remaining earthmoving activities at the project site and shall be equipped to record and salvage fossil resources that may be unearthed during grading activities. The paleontologist shall be empowered to temporarily halt or divert grading equipment to allow recording and removal of the unearthed resources. Any fossils found shall be evaluated in accordance with the CEQA Guidelines and offered for curation at an accredited facility approved by the City of La Verne. Once grading activities have ceased or the paleontologist determines that monitoring is no longer necessary, monitoring activities shall be discontinued. This measure shall be implemented to the satisfaction of the City Community Development Department.

- d) The potential for encountering human remains at the project site is low. No known burial sites have been identified within the project site or in the vicinity. Nevertheless, California Health and Safety Code §7050.5, Public Resources Code § 5097.98, and § 15064.5 of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that, if human remains are encountered during excavation, all work must halt, and the County Coroner must be notified (Section 7050.5 of the California Health and Safety Code). The coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, the coroner will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD) responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the Public Resources Code. The MLD should make his/her recommendations within 48 hours of their notification by the NAHC. This recommendation may include (A) the non-destructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment. Section 7052 of the Health & Safety Code also states that disturbance of Native American cemeteries is a felony. **With adherence to these existing regulations, impacts would be less than significant.**

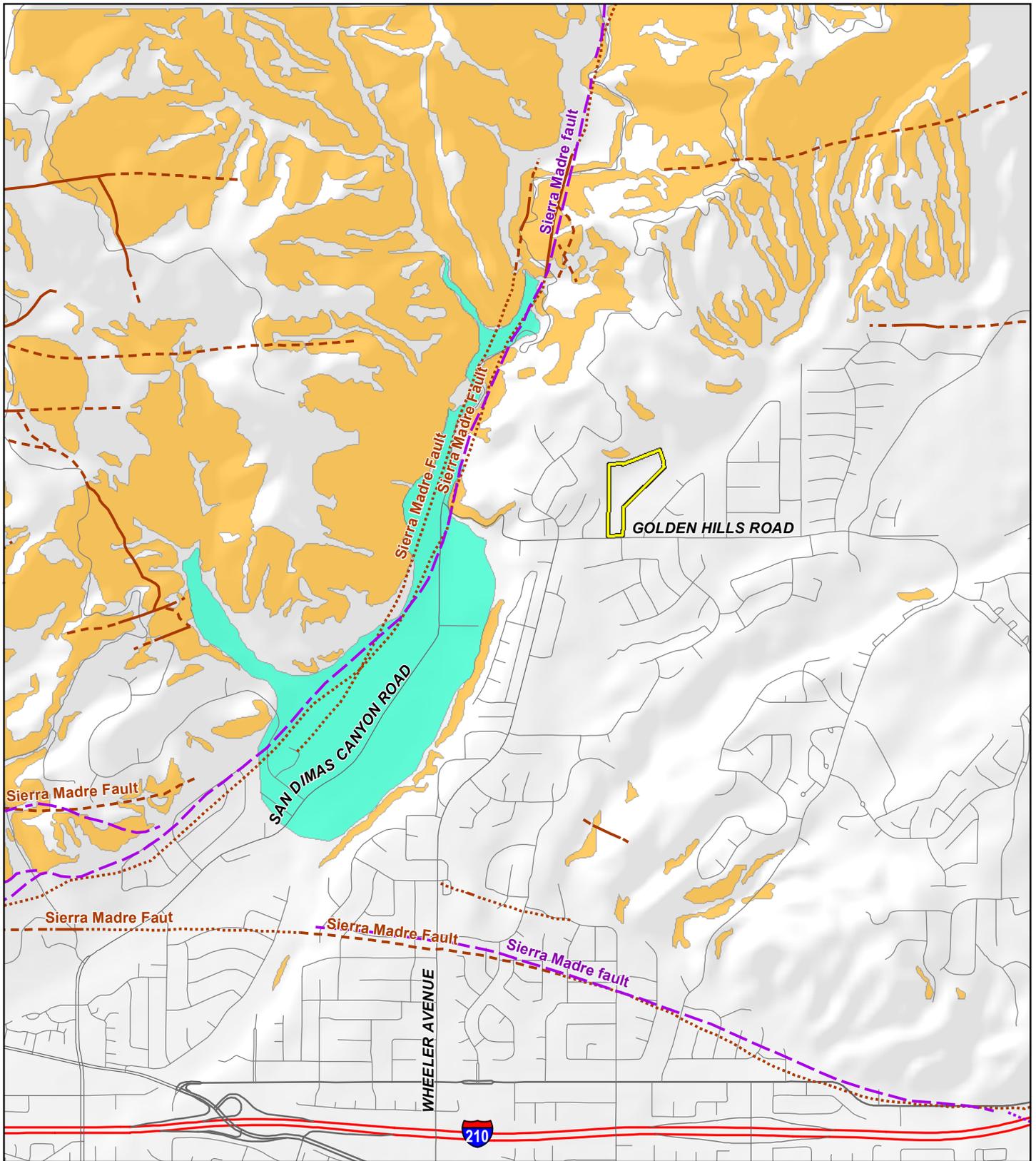
	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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VI. GEOLOGY AND SOILS

Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a(i-ii)) The project site is not located within the boundaries of an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1972 (California Geological Survey 2005). Older geotechnical data depicted a possible trace of the Sierra Madre Fault in the general vicinity of the site (Sid Geotechnical Inc., 2004). However, more recent mapping by the California Geological Survey does not show any traces of the fault east of San Dimas Canyon (see Figure 8). In addition, the most recent project-specific geotechnical report also does not indicate any faulting on the site (GeoTek Inc, 2015). There are no known active or potentially active faults traversing the project site and the risk of ground rupture due to fault displacement beneath the site is low. Additionally, the City's General Plan does not identify any Earthquake Fault Zones on or adjacent to the project limits.



LSA

- Project Boundary
- Landslide Zone
- Liquefaction Zone

- CGS Faults, 2005
- Fault, Certain
 - Fault, Approximate
 - Fault, Concealed

- USGS Faults, 1946
- Fault, Certain
 - Fault, Approximate
 - Fault, Concealed

FIGURE 8



SOURCE: California Geological Survey, 1999 & 2005; USGS OM-63_1, 1946.

I:\LVR1503\Reports\IS\fig7_SeismicHaz_faults.mxd (11/3/2015)

Sage Canyon Project – TTM71373
Initial Study/Mitigated Negative Declaration
Seismic Hazards and Earthquake Faults

Based on available geotechnical and soils information (see Appendix C), **impacts related to earthquake faults would be less than significant.**

The project site is situated in a seismically active area that has historically been affected by generally moderate to occasionally high levels of ground motion. Therefore, during the life of the proposed improvements, the property will probably experience similar moderate to occasionally high ground shaking from these fault zones, as well as some background shaking from other seismically active areas of the Southern California region. However, the design and construction in accordance with the current California Building Code (CBC) requirements is anticipated to address the issues related to potential ground shaking. **Seismic-related impacts would be less than significant.**

a(iii)) Liquefaction describes the phenomenon where ground shaking works cohesionless soil particles into a tighter packing, which induces excess pore pressure. Engineering research of soil liquefaction potential (see Appendix C) indicates that generally three basic factors must exist concurrently in order for liquefaction to occur:

- A source of ground shaking, such as an earthquake, capable of generating soil mass distortions;
- A relatively loose silty and/or sandy soil; and
- A relative shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that will allow positive pore pressure generation.

According to the project's geotechnical report, the project site is not susceptible to liquefaction. Groundwater is expected to be approximately 75 to 100 feet below the ground surface. In addition, the Safety Element of the Los Angeles County General Plan does not indicate that the site is at risk for liquefaction. Therefore, the potential for liquefaction to occur beneath the site is considered to be very low, and **impacts related to ground failure and liquefaction would be less than significant.**

a(iv)) The geologic and topographic characteristics of an area, often determine its potential for landslides. Steep slopes, the extent of erosion, and the rock composition of a hillside all contribute to the potential for slope failure and landslide events. In order to fail, unstable slopes typically need to be disturbed; the common triggering mechanisms of slope failure include undercutting of slopes by erosion or grading, saturation of marginally stable slopes by rainfall or irrigation, and shaking of marginally stable slopes during earthquakes.

The project site is located within a foothill area, as depicted in General Plan Figure PS-1. However, no steep slopes are located on or adjacent to the site to the north, so the potential for landslides is considered low. **Therefore, impacts related to landslides would be less than significant.**

b) Based on the geotechnical report, the proposed project site is underlain by alluvial fan deposits, composed mostly of silty sands. Prior to the issuance of grading permits, the project proponent would be required to prepare and submit detailed grading plans for the

project site. These plans must be prepared in conformance with applicable standards of the City's Grading Ordinance.

Development of the site would involve more than one acre of ground disturbance; therefore, the proposed project is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit. A Storm Water Pollution Prevention Plan (SWPPP) would also be required to address erosion and discharge impacts associated with the proposed on-site grading by implementing appropriate best management practices (BMPs). In addition to preparation of an SWPPP, new development projects submitted to the City would be required to submit a project-specific Standard Urban Stormwater Mitigation Plan (SUSMP). The SUSMP would identify BMP measures to treat and/or limit the entry of contaminants into the storm drain system. The SUSMP is required to be incorporated by reference or attached to the project's SWPPP as the Post-Construction Management Plan. Adherence to the BMPs contained in the SWPPP and SUSMP would ensure that the potential for soil erosion **impacts related to soil erosion would be reduced to less than significant levels by implementation of existing water quality regulations.**

- c) Subsidence is the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal movement. Subsidence is caused by a variety of activities, which include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydrocompaction. Ground subsidence and associated fissuring have occurred in several areas of Los Angeles County, due to falling groundwater tables. However, the City has not indicated any areas of subsidence within its limits. Because the proposed project would be required to adhere to applicable regulations ensuring building safety, **no significant subsidence-related impacts would result from the construction and operation of the proposed on-site uses.**

Although there was no evidence in either of the geotechnical studies for the project site, local residents have expressed concern about having observed dumping of solid waste materials at various times in the past. In addition, some solid waste materials were observed uphill and just off site of the project site to the north. The developer has indicated this is not the case, however, there appears to be at least the possibility of unconsolidated fill on or adjacent to the site that has not been identified in the project engineering evaluations. A Phase I Environmental Site Assessment was not performed for this site which might have addressed this issue. Therefore, **this is a potentially significant impact that requires mitigation:**

GEO-1 If areas of unconsolidated fill are discovered during project grading, the developer and/or project grading contractor shall implement actions outlined in Section 5.2, Earthwork Considerations, of the project geotechnical report (Geotek September 22, 2015). If the unconsolidated fill is in excess of the guidelines identified in the Geotek report, or if the find involves the western bank of the drainage channel along the eastern boundary of the site, the grading contractor shall immediately notify City staff and the project civil and/or geotechnical engineer of the find. The project engineer shall evaluate the find and determine the most appropriate method of remediation to provide safe and sufficient fill to support project development. Any changes to the project grading or building plans that are required due to unexpected

unconsolidated fill shall be approved prior to implementation by the City Engineer.

In addition, Mitigation Measure HAZ-1 requires a survey for any areas of solid waste materials dumped on the site prior to grading. **With implementation of the recommendations in the project geotechnical report and Mitigation Measure GEO-1 and HAZ-1, potential impacts related to unstable geology or soils would be less than significant.**

- d) The project geotechnical report tested on-site soils and determined that they have a very low expansion potential. Expansion potential is dependent on the amount and type of clay present in soil. On-site soils generally do not exhibit the mineralogy and amount of clay required for significant expansion. **Therefore, impacts related to expansive soils are considered less than significant.**
- e) The proposed project does not include any improvements that would require the use of septic systems. Wastewater from the proposed project would be collected and conveyed to the City's wastewater treatment facility. **Therefore, no impacts related to septic systems would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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VII. GREENHOUSE GAS EMISSIONS

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs), analogous to the way in which a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O_x), fluorinated gases, and ozone. GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler. However, it is believed that emissions from human activities, particularly the consumption of fossil fuels

for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. The SCAQMD is considering a tiered approach with locally adopted GHG reduction plans followed by GHG threshold values set to capture 90 percent of project GHG emissions by project type. SCAQMD's current proposed threshold is 3,000 metric tons per year (SCAQMD, "Proposed Tier 3 Screening Levels - Residential/Commercial Projects, September 2010). If the proposed project would generate GHG emissions above the threshold level, its contribution to cumulative impacts would be considered significant.

As discussed in Section III, *Air Quality*, construction and operation of the proposed project would generate air pollutant emissions that have the potential generate GHG emissions through the burning of fossil fuels or other emissions of GHGs, thus potentially contributing to cumulative impacts related to global climate change. Emissions associated with the project's construction period and long term operational emissions were estimated using the California Emissions Estimator Model (CalEEMod) computer program. Complete CalEEMod results and assumptions can be viewed in Appendix B.

- a) The project's proposed construction activities, energy use, daily operational activities, and mobile sources (traffic) would generate quantities of GHG emissions. The CalEEMod was used to calculate GHG emissions resulting from project construction and long-term operation. The project-related construction emissions are confined to a relatively short period of time in relation to the overall life of the proposed project. Therefore, the construction GHG emissions were amortized over a 30-year period to determine the annual construction-related GHG emissions over the life of the project. As shown in Table 6, the combined annual GHG emissions associated with the proposed project would be 300 metric tons. This is less than the proposed SCAQMD threshold of 3,500 metric tons per year. **Therefore, potential impacts from GHG emissions would be less than significant.**

Table 6: Estimated Emissions of Greenhouse Gases

Emission Source	Annual Emissions (metric tons CDE)
Construction (amortized over 30 years)	32
Operational and Mobile	268
Total	300

Sources: Emissions reported are from CalEEMod mitigated construction and operational data. See Appendix B for calculations.

- b) In April 2012, the Southern California Association of Governments (SCAG) adopted the 2012-2035 *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). SCAG's RTP/SCS includes a strong commitment to reduce emissions from transportation sources by promoting compact and infill development. The proposed project would be consistent with

energy efficiency measures because it would comply with Title 24, the California Building Energy Efficiency Program. As discussed above and in Tables 7 and 8, below, the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. **Impacts would be less than significant.**

Table 7: Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
<i>California Air Resources Board (ARB)</i>	
<u>Vehicle Climate Change Standards:</u> AB 143 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004.	Consistent: The vehicles that travel to and from the project site on public roadways would be in compliance with ARB vehicle standards that are in effect at the time of vehicle purchase.
<u>Diesel Anti-Idling:</u> In July 2004, the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Consistent: Current State law restricts diesel truck idling to five minutes or less. Diesel trucks operating on the project site during construction are subject to this statewide law.
<u>Alternative Fuels: Biodiesel Blends:</u> The ARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	Consistent: The ARB is in the process of developing regulations that would increase the use of biodiesel for transportation uses. Currently, it is unknown when such regulations would be implemented; however, it is expected that upon implementation of such a regulation that would require increase biodiesel blends, the diesel-fueled vehicles that travel to and from the project site would be replaced by vehicles using biodiesel.
<u>Alternative Fuels: Ethanol:</u> Increased use of E-85 fuel.	Consistent: As data become available on the impacts of fuel specifications on the current and future vehicle fleets, the ARB will review and update motor vehicle fuel specifications as appropriate. In reviewing the specifications, the ARB will consider the emissions performance, fuel supply consequences, potential greenhouse gas reduction benefits, and cost issues surrounding E85. Future residents of the project could purchase flex-fuel vehicles and utilize this fuel, once it is commercially available.
<u>Heavy-Duty Vehicle Emission Reduction Measures:</u> Increased efficiency in the design of heavy duty vehicles and an education program for the heavy-duty vehicle sector.	Consistent: The heavy-duty vehicles that travel to and from the project site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.
<u>Achieving 50% Statewide Recycling Goal:</u> Achieving the State's 50% waste reduction mandate as established by the Integrated Waste Management Act of 1989 (AB 939, Sher, Chapter 1095, Statutes of 1989) will reduce climate change emissions, associated with energy intensive material extraction and production, as well as methane emission from landfills. A per-capita diversion rate of 65% has been achieved on a statewide basis, consistent with AB 939.	Consistent: The City has completed a comprehensive waste reduction and recycling plan in compliance with State Law AB 939, which requires every city in California to reduce the waste it sends to landfills by 50% by the year 2000. Currently, the City requires that at least 50% of all solid waste, including construction/demolition waste, be diverted from landfills.

Table 7: Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
<p>Zero Waste – High Recycling: Efforts to exceed the 50% goal would allow for additional reductions in climate change emissions.</p>	<p>Consistent: As discussed above, currently, the City requires that at least 50% of all solid waste, including construction/demolition waste, be diverted from landfills. AB 341 requires a statewide diversion rate of 75% and thus the City of La Verne and its disposal partner (Waste Management) continue to explore new technologies and strategies to further reduce waste and increase diversion from landfills.</p>
<i>Department of Forestry</i>	
<p>Urban Forestry: A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.</p>	<p>Consistent: The project site contains 79 oak trees, the majority of which will remain on the site. Approximately 4–6 trees on the site will be removed due to tree health and development plans. These trees will be replaced in accordance with City Municipal Code Section 18.78.060. By maintaining existing trees and replacing trees that are removed due to development, the project will not reduce the number of trees in this urban area.</p>
<i>Department of Water Resources</i>	
<p>Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.</p>	<p>Consistent: The proposed project would be required to comply with Chapter 13.15 of the City’s Municipal Code that establishes water conservation, use and restrictions (“Low Impact Development” or LID requirements). In addition, the City will comply with the Governor’s recent drought requirements for additional water conservation. The project would be required to comply with the City’s LID and any additional drought-related water conservation requirements.</p>
<i>California Energy Commission (CEC)</i>	
<p>Building Energy Efficiency Standards in Place and in Progress: Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and alterations to existing buildings).</p>	<p>Consistent: The project has committed to meet or exceed the standards of Title 24 that are in effect at the time of development.</p>
<p>Appliance Energy Efficiency Standards in Place and in Progress: Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).</p>	<p>Consistent: Under State law, appliances that are purchased for the project—both pre- and post-development—would be required to be consistent with energy efficiency standards that are in effect at the time of the appliance manufacture date.</p>
<i>Business, Transportation and Housing</i>	
<p>Measures to Improve Transportation Energy Efficiency: Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.</p>	<p>Not Applicable: The project site is located in a hillside area long planned and developed for rural residential uses, and is not proximate to existing transit facilities or services. Farther south, Foothill Transit makes regular stops and the Metro Gold Line will eventually provide light rail service from the City of La Verne to Los Angeles and surrounding cities which will include nearby park and ride facilities.</p>

Table 7: Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
<p><u>Smart Land Use and Intelligent Transportation Systems (ITS)</u>: Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors.</p>	<p>Not Applicable: The project site is located in a hillside area long planned and developed for rural residential uses, and is not proximate to existing transit facilities or services. Farther south, Foothill Transit makes regular stops and the Metro Gold Line will eventually provide light rail service from the City of La Verne to Los Angeles and surrounding cities, which will include nearby park and ride facilities.</p>
<p><i>Public Utilities Commission (PUC)</i></p>	
<p><u>Accelerated Renewable Portfolio Standard</u>: The Governor has set a goal of achieving 33 percent renewable energy in the State's resource mix by 2020. The joint PUC/CEC September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.</p>	<p>Consistent: The project will allow for the future construction of solar panels on the roofs of the proposed residential dwellings if so desired by future residents.</p>
<p><u>California Solar Initiative</u>: The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.</p>	<p>Consistent: The project will allow for the future construction of solar panels on the roofs of the proposed residential dwellings if so desired by future residents.</p>

Table 8: Project Consistency with Applicable Attorney General Greenhouse Gas Reduction Measures

Strategy	Project Consistency
<p><i>Transportation-Related Emissions</i></p>	
<p><u>Diesel Anti-Idling</u>: Set specific limits on idling time for commercial vehicles, including delivery vehicles.</p>	<p>Consistent: Currently, the California Air Resources Board's Airborne Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling restricts diesel truck idling to five minutes or less. Diesel-powered construction vehicles are subject to this regulation and thus would comply with the applicable provisions.</p>
<p><u>Transportation Emissions Reduction</u>: Provide shuttle service to public transportation.</p>	<p>Not Applicable. The project site is located in a hillside area long planned and developed for rural residential uses, and is not proximate to existing transit facilities or services. Farther south, Foothill Transit makes regular stops and the Metro Gold Line will eventually provide light rail service from the City of La Verne to Los Angeles and surrounding cities, which will include nearby park and ride facilities.</p>
<p><u>Transportation Emissions Reduction</u>: Incorporate bike lanes into the project circulation system.</p>	<p>Not Applicable: On-site development would not include the addition of bike lanes, as private streets are proposed.</p>
<p><u>Transportation Emissions Reduction</u>: Provide on-site bicycle and pedestrian facilities (showers, bicycle parking, etc.) for commercial uses, to encourage employees to bicycle or walk to work.</p>	<p>Not Applicable: No commercial uses are proposed as part of the project.</p>

Table 8: Project Consistency with Applicable Attorney General Greenhouse Gas Reduction Measures

Strategy	Project Consistency
<i>Solid Waste and Energy Emissions</i>	
<u>Solid Waste Reduction Strategy:</u> Project construction shall require reuse and recycling of construction and demolition waste.	Consistent: To the extent feasible, the proposed project will recycle on-site construction waste.
<u>Water Use Efficiency:</u> Require measures that reduce the amount of water sent to the sewer system; see examples in CAT standard above. (Reduction in water volume sent to the sewer system means less water has to be treated and pumped to the end user, thereby saving energy.)	Consistent: The proposed project would be required to comply with Chapter 13.15 of the City's Municipal Code that establishes water conservation, use, and restrictions. The project proposes to utilize site design and landscape palettes to conserve a significant amount of water and reduce runoff.
<i>Land Use Measures, Smart Growth Strategies and Carbon Offsets</i>	
<u>Smart Land Use and Intelligent Transportation Systems:</u> Encourage mixed-use and high density development to reduce vehicle trips, promote alternatives to vehicle travel, and promote efficient delivery of services and goods.	Not Applicable: The project site is located in a hillside area long planned and developed for rural residential uses, and is not proximate to existing transit facilities or services. Farther south, Foothill Transit makes regular stops and the Metro Gold Line will eventually provide light rail service from the City of La Verne to Los Angeles and surrounding cities, which will include nearby park and ride facilities.
<u>Smart Land Use and Intelligent Transportation Systems:</u> Require pedestrian-only streets and plazas within the project site and destinations that may be reached conveniently by public transportation, walking or bicycling.	Not Applicable: The project site is located in a hillside area long planned and developed for rural residential uses, and is not proximate to existing transit facilities or services. Farther south, Foothill Transit makes regular stops and the Metro Gold Line will eventually provide light rail service from the City of La Verne to Los Angeles and surrounding cities, which will include nearby park and ride facilities.

The California Office of Planning and Research (OPR) *CEQA Guidelines* also include recommended mitigation strategies to reduce GHG impacts. According to this document, mitigation measures may include:

1. *Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal.*
2. *The potential of siting, orientation, and design to minimize energy consumption, including transportation energy, water conservation and solid-waste reduction.*
3. *The potential for reducing peak energy demand.*
4. *Alternative fuels (particularly renewable ones) or energy systems.*
5. *Energy conservation which could result from recycling efforts.*

Consistent with OPR mitigation strategies, on-site development would reduce wasteful, inefficient and unnecessary consumption of energy and utilize alternative fuels by complying with requirements of Part 6, Title 24 of the California Building Standards Code - California Energy Code. The City of La Verne has instituted a residential recycling program in conformance with California Assembly Bill 939. All residential uses are required to have recycling programs. Therefore, recycling efforts would also comply with OPR strategies. The proposed project would be consistent with CAT and Attorney General Strategies, as demonstrated in Tables 7 and 8, as well as OPR strategies, as discussed above.

GHG emissions generated by the proposed project would not have a significant adverse impact on the environment. The project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. **Therefore, the contribution of on-site development to cumulative global climate change impacts would be less than significant.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) Potentially hazardous materials such as fuels, lubricants, and solvents would be used during project construction. Residential uses typically do not use or store large quantities of hazardous materials. The transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable State and Federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. Compliance with all applicable laws and regulations during project construction would reduce the potential impact associated with the routine transport, use, storage, or disposal of hazardous materials to a less than significant level.				
b) The project site was previously used for citrus cultivation. Based on a review of historic aerial photographs, active agricultural use of the site ceased between 1980 and 1994. During cultivation, agricultural chemicals such as fertilizers, pesticides, and herbicides may have been used and stored on site. There are no longer any chemicals stored on site, and any chemical residue in on-site soils has had sufficient time to degrade to levels below those with potential for health impacts.				

Since the 1980s, area residents report that the project site has been occasionally used for dumping of residential wastes, including yard wastes, sinks, appliances, etc. The developer has indicated this is not the case, however, any illegally dumped could pose a hazard during construction and future use of the site. A Phase I Environmental Site Assessment was not prepared for this site which could have addressed this issue. Therefore, this is a potential impact and mitigation to identify dumping areas is recommended. Note that Mitigation Measure GEO-1 in Section VI., *Geology and Soils*, addresses unconsolidated fill that may be found during grading.

Based on available information, development of the site may result in the accidental release of hazardous materials; this represents a potentially significant hazard to the public and requires mitigation before or during grading of the site. However, **impacts related to upset or accident conditions involving hazardous materials would be less than significant with implementation of Mitigation Measure HAZ-1.**

HAZ-1 Prior to issuance of a grading permit, the applicant shall provide evidence that the site has been completely surveyed for potential “dump areas” of solid wastes. This work must be carried out by a qualified environmental professional hired by the applicant but who will report directly to the City if any solid waste or hazardous materials are found. Waste that is identified

shall be removed and disposed of in accordance with applicable laws and regulations. This measure shall be implemented to the satisfaction of the City Community Development Department.

- c) There are no schools within ¼ mile of the project site. The closest school the site is Oak Mesa Elementary School, located 1.3 miles to the southwest. Furthermore, the development of the project site and the proposed residential uses would not release hazardous materials into the environment. **No impacts related to proximity to school sites would occur.**

- d) The project site is not included on the Cortese list (Government Code Section 65692.5) or listed in the Site Mitigation and Brownfields Reuse Program Database, as maintained by the Department of Toxic Substances Control (DTSC) Envirostar database (<http://www.envirostar.dtsc.ca.gov/public/>). No potentially hazardous uses are located within the vicinity of the project site due to the area being residential in nature. Therefore, **no impacts related to the Cortese List or other governmental databases would occur.**

- e-f) The project site is not located within two miles of any airport or airstrip. The nearest airport, Bracket Field Airport, is located approximately 4 miles to the southwest. A review of the Los Angeles County Airport Land Use Plan confirmed that the project site is not within a designated fly zone. In addition, the proposed residential uses are not in close proximity to the airport. **No impacts related to public airports or private airstrips would occur.**

- g) The proposed project would be required to design, construct, and maintain structures, roadways, and facilities in accordance with applicable standards associated with vehicular access, resulting in the provision of adequate vehicular access that would provide for adequate emergency access and evacuation. Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. In addition, the project will provide all-weather access to the project site for emergency response, and the intersection of the project entrance onto Golden Hills Drive has sufficient sight distance so as to not create a traffic hazard. Adherence to the City's road and intersection design requirements would result in **less than significant impacts related to emergency access for the project.**

- h) As designated by CAL FIRE, the project site is located within a Local Responsibility Area - Very High Fire Hazard Severity Area.² Adjacent wildlands to the north would potentially pose a wildfire threat for residents of the proposed project. The proposed project would be required to comply with the requirements of Chapter 15.37 of City Municipal Code: Very High Fire Hazard Severity Zone Regulations. Prior to the issuance of a grading permit, the applicant shall be required to submit fuel modification plans to the City. Residential homes built under the proposed project would be subject to special building standards, which would reduce fire hazards to residents. **Compliance with these requirements would reduce impacts to a less than significant level. Therefore, no mitigation is required.**

² CAL FIRE, Very High Fire Hazard Severity Zones in LRA: Los Angeles County, http://frap.fire.ca.gov/webdata/maps/los_angeles/LosAngelesCounty.pdf (Accessed October 26, 2015).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
j) Expose people or structures to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a, f) Construction projects resulting in the disturbance of 1.0 acre or more require a National Pollutant Discharge Elimination System (NPDES) permit. The project proponent is required to file a Notice of Intent (NOI) to comply with the NPDES Construction Activity General Permit. A component of the NPDES permit is the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The purpose of an SWPPP is to identify and implement Best Management Practices (BMPs) to reduce impacts to surface water from contaminated stormwater discharges. There are no unusual on-site hydrological characteristics, so compliance with typical project-specific SWPPP requirements would reduce potential construction-related impacts related to this issue to a less than significant level.

Once the proposed project is completed, operation or ongoing activities of the project may contribute to long-term water quality impacts. To prevent such impacts, the project must implement a Standard Urban Stormwater Mitigation Plan (SUSMP). New development is required to meet or exceed pre-project conditions for storm water discharge, and the proposed project would be required to retain any additional runoff on site and discharge it to the storm drain system at rates that do not exceed pre-project conditions.

The SUSMP identifies BMPs (including design criteria for treatment control) that may be applicable when considering any map or permit for which discretionary approval is sought. The project-specific SUSMP would address management of urban runoff in terms of the amount and quality of water leaving the project site. The primary objective of the SUSMP, by addressing site design, source control, and treatment control BMPs applied on a project-specific and/or sub-regional or regional basis, is to ensure that the land use approval and permitting process of each City would minimize the cumulative regional impact of urban runoff. The SUSMP would be required to be incorporated by reference or attached to the project's SWPPP as the Post-Construction Management Plan. The SWPPP and SUSMP must be approved by the City prior to the issuance of a grading or building permit. Additionally, the project would also be required to comply with Section 13.60.010 of the City of La Verne Municipal Code, which establishes minimum stormwater management requirements for development within the City.

The Los Angeles County Flood Control District (LACFCD) does not permit any increase in receiving water peak flows as a result of the project development (see HYD-4). A "Hydrology and Sedimentation Report" was prepared for the project by Gilbert Engineering Company in 2015. That report was prepared for a 50-year storm event based on past and current runoff data on the project site and the surrounding watershed area of approximately 360 acres. The study was based on the *LA County Hydrology Manual* (2006) using the required modified rational method (Hydrocalc_0.3.1). Project runoff was estimated for both clear and bulked peak flows based on potential post-burn conditions. Clear peak flow was

estimated at 1,254 cubic feet per second (cfs) while burned peak flow was estimated at 1,390 cfs.

Mitigation Measures. The following measures are proposed to help reduce potential short- and long-term hydrological and water quality impacts of the project to less than significant levels:

Short-Term Construction Impacts

HYD-1 Prior to issuance of a grading permit, the developer shall file a Notice of Intent (NOI) with the Los Angeles Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's NOI is to be covered by the General Construction Permit has been filed with the SWQCB. This measure shall be implemented to the satisfaction of the City Engineer.

HYD-2 Prior to issuance of a grading permit, the developer shall submit to the Los Angeles Regional Water Quality Control Board (RWQCB) and receive approval for a project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. BMPs to be implemented may include (but shall not be limited to) the following:

- Potential sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles, fiber rolls, a temporary debris basin (if deemed necessary), and other discharge control devices. The construction and condition of the BMPs are to be periodically inspected by the RWQCB during construction, and repairs would be made as required.
- Area drains within the construction area must be provided with inlet protection. Minimum standards are sandbag barriers, or two layers of sandbags with filter fabric over the grate, properly designed standpipes, or other measures as appropriate.
- Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas.
- All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or

blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps.

- Implement good housekeeping practices such as creating a waste collection area, putting lids on waste and material containers, and cleaning up spills immediately.
- The SWPPP shall include inspection forms for routine monitoring of the site during the construction phase.
- Additional required BMPs and erosion control measures shall be documented in the SWPPP.
- The SWPPP would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time.

The developer and/or construction contractor shall be responsible for performing and documenting the application of BMPs identified in the project-specific SWPPP. Regular inspections shall be performed on sediment control measures called for in the SWPPP. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City and the Regional Water Quality Control Board as appropriate.

Long-Term Occupancy Impacts

HYD-3 Prior to issuance of a grading permit, a site-specific Standard Urban Stormwater Management Plan (SUSMP) shall be submitted to the City Engineer for review and approval. The SUSMP shall specifically identify the long-term site design, source control, and treatment control BMPs that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. At a minimum, the SUSMP shall identify and the site developer shall implement the following site design, source control, and treatment control BMPs as appropriate:

Site Design BMPs

- Minimize urban runoff by maximizing permeable areas and minimizing impermeable areas (recommended minimum 25 percent of site to be permeable).
- Incorporate landscaped buffer areas between sidewalks and streets.
- Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs wherever possible
- Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
- Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.

- Construct streets, sidewalks, and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
- Direct runoff from impervious areas to treatment control BMPs such as landscaping/bioretention areas.

Source Control BMPs

Source control BMPs are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural:

Non-Structural Source Control BMPs

- Education for property owners, tenants, occupants, and employees.
- Activity restrictions.
- Irrigation system and landscape maintenance to minimize water runoff.
- Common area litter control.
- Regular mechanical sweeping of private streets and parking lots.
- Regular drainage facility inspection and maintenance.

Structural Source Control BMPs

- MS4 stenciling and signage at any new storm down drains.
- Properly design trash storage areas and any outdoor material storage areas.

Treatment Control BMPs

Treatment control BMPs supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control BMP strategy for the project is to select Low Impact Development (LID) BMPs that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration BMPs are not appropriate, bioretention and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and use BMPs (i.e., storage pods) may be used as a treatment control BMP to store runoff for later non-potable uses.

Adherence to the requirements of Section 13.60.010, the NPDES permit, the SWPPP, and SUSUMP, as outlined in **Mitigation Measures HYD-1 through HYD-3**, the project's potential **short- and long-term water quality impacts would be less than significant**.

- b) The City of La Verne would provide potable water service to the project site. Section XVII (Utilities and Service Systems) includes an analysis of water supplies available to serve the proposed project. This analysis concludes that the proposed project would not interfere with citywide groundwater recharge efforts, as the City currently does not make water deliveries to groundwater recharge efforts (2010 La Verne Urban Water Master Plan, 2011). Implementation of the project would incrementally increase impervious surfaces at the site

(mainly the new access road and new residences) but is not expected to interfere with groundwater recharge as much of the site would have or maintain pervious surfaces that would allow percolation of precipitation and runoff. In addition, the site has not been designated as an important groundwater recharge location. **Therefore, impacts to groundwater supplies would be less than significant.**

- c-f) The proposed project site currently contains two residential homes and 1.9 acres of a large natural drainage channel, which defines the eastern boundary of the site and crosses the southern portion of the site near Divot Drive. This southern portion of the site has historically flooded both on-site and downstream properties during large storm events. The area currently contains a number of “K rails” to reduce runoff velocity and erosion.

The proposed project would reconstruct this southern area with a new permanent access road north off of Golden Hills Road. This new road will also act as a levee and provide improved flood protection for the project site and downstream properties. An existing maintenance transfer drain will be relocated to just east of the new road to help provide improved drainage and flood protection. These improvements will prevent substantial erosion or siltation.

Mitigation Measures. The following measure is proposed to help reduce potential drainage and erosion impacts to less than significant levels:

HYD-4 Prior to issuance of a grading permit, the project engineer shall demonstrate that the project, including all water quality actions implemented under Mitigation Measures HYD-1 through HYD-3, shall not increase off-site runoff, create any unsafe drainage conditions, and identify if any on-site detention is required to protect the site under expected storm/runoff conditions. This measure shall be implemented to the satisfaction of the City Engineer.

With implementation of BMPs as outlined in the project SWPPP and SUSMP in Mitigation Measures HYD-1 through HYD-3, and Mitigation Measure HYD-4 regarding runoff, **potential project impacts to existing drainages, the capacity of the storm water drainage system, and water quality (including erosion) will be less than significant.**

- g-i) The project site is located within FEMA Flood Zone D, which is defined as an “area with possible, but undetermined flood hazards” (FEMA Flood Insurance Rate Map No. 06037C1445F). In addition, the La Verne General Plan Public Safety Element does not identify flooding conditions on the project site or in the surrounding areas. However, the southern end of the project site and portions of Golden Hills Road and the golf course downstream of the site have experienced occasional flooding (see c-f above). The proposed project would reconstruct this southern portion of the site with a new permanent access road north off of Golden Hills Road. This new road will also act as a levee and provide improved flood protection for the project site and downstream properties. An existing maintenance transfer drain will be relocated to just east of the new road to help provide improved drainage and flood protection. These improvements will prevent substantial erosion or siltation. **With implementation of the project as designed and Mitigation**

Measure HYD-4, less than significant impacts would occur relative to identified 100-year flooding.

- j) Seiches are oscillations of the surface of inland bodies of water that vary in period from a few minutes to several hours. Seismic events can induce such oscillations. Tsunamis are large sea waves produced by submarine earthquakes or volcanic eruptions. The project site is not located close to an inland body of water and is located at approximately 1,473 feet above sea level. Therefore, the proposed project would not be subject to a tsunami. Furthermore, according to the City’s Public Safety Element, the project site is not adjacent to or within a seismic hazard area or within or adjacent to a natural, non-channelized watercourse. Potential hazards related to slope failure are addressed in Section VI, Geology and Soils, above. **The proposed project would not be impacted by tsunamis, seiches, or mudflow.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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X. LAND USE AND PLANNING

Would the proposal:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with an applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
- a) The proposed project consists of 14 single-family detached units within an area zoned for planned residential uses, and designated for hillside development in the General Plan. The proposed project would vary from current development requirements for the Hillside Development Overlay Zone (HDOZ). This will consist of two modifications: cul-de-sac length and number of access points. Overall, the density and type of development would be consistent with nearby residential land uses, and would not introduce linear features such as highways or transit lines that would divide an established community. Local residents likely use the site occasionally for passive open space (i.e., hiking), but there are no established trails on site. The adjacent neighborhood to the west has direct access south onto Golden Hills Road but no direct access across the project site. Similarly, the neighborhood southeast of the site is across the existing drainage channel and also takes direct access off of Golden Hills Road. Since these two neighborhoods are not currently connected other than by Golden Hills Road, development of the project site would not divide these neighborhoods. Therefore, **no impact regarding dividing an established neighborhood would occur.**

- b) The proposed single-family residential development is subject to the following planning policy documents:
- City of La Verne General Plan
 - City of La Verne Municipal Code

City of La Verne General Plan. The Land Use Chapter of the General Plan establishes the type and general character of land uses permitted in the City. According to the City of La Verne General Plan Land Use Map, the project site is within the HDOZ. The General Plan establishes policies for this area that provide for the protection of hillsides from development that affects views and damages slopes, preserves native and heritage trees, and protects residents from wildfires..

General Plan Compatibility Assessment. Although the proposed project would not entirely meet General Plan requirements for the HDOZ classification, it would not conflict with policies pertaining to hillside development. The proposed modifications would allow for the project to only have one access point instead of the current two required access points. Review by the City Fire Department has indicated that the proposed site plan would allow for adequate fire protection. The project would also preserve oak trees as feasible, and replace removed trees as required by the City. The project is surrounded by similar development and would not significantly affect hillside views. The development of single-family detached dwellings would be consistent with the proposed zoning (PR2D) as well as the surrounding residential development. **Therefore, General Plan impacts would be less than significant.**

City of La Verne Municipal Code. The City of La Verne Zoning Map designates the project site as Planned Residential (PR1/5D and PR2D). One of the three lots on site requires a zone change from PR1/5D to PR2D. The zone change would allow for homes with a smaller lot size (15,000 square feet) than originally planned (5 acres) for a portion of the site.

Municipal Code Compatibility Assessment. The project's proposed residential use and density is permitted within the PR2D zoning designation proposed by the zone change. The proposed project would be required to comply with all applicable design standards for this zone, subject to City review of individual residential development plans. Subsequent to project approval by the City of La Verne Planning Commission and City Council, final construction plans would undergo further review by the Building and Safety Department and the Community Development Department to ensure compliance with all applicable conditions of approval and the applicable building code requirements. **Therefore, zoning and municipal code impacts would be less than significant.**

- c) The project site is characterized as "Developed/Disturbed" in the Resource Management Element of the General Plan (page 22). However, areas along the perimeter and adjacent to the site contain oak woodland. As described in described in Section IV.e), nearly all coast live oaks found on the site would be preserved by the project. **Mitigation Measure BIO-5** would address impacts to oak trees that may be removed.

According to the CDFW, the project site is located outside of a Habitat Conservation plan or Natural Community Conservation Plan. The nearest applicable regional conservation plan

to the project site is the Western Riverside County Multiple Species Habitat Conservation Plan, whose northwestern boundary is located over 15 miles southeast of the site (CDFW). **Therefore, no impact would occur relative to approved habitat conservation plans.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XI. MINERAL RESOURCES

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a-b) La Verne’s General Plan Resource Management Element does not identify any natural resources worthy of preservation on the project site or in the immediate vicinity. Page 22 of the Resource Management Element identifies the project site as “Developed/Disturbed.” **Therefore, no impacts to mineral resources would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XII. NOISE

Would the project result in:

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XII. NOISE

Would the project result in:

been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB, and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (L_{eq}). The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, L_{eq} is summed over a one-hour period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. Two commonly used noise metrics—the Day-Night average level (L_{dn}) and the Community Noise Equivalent Level (CNEL)—recognize this fact by weighting hourly L_{eqs} over a 24-hour period. The L_{dn} is a 24-hour average noise level that adds 10 dB to actual nighttime (10:00 p.m. to 7:00 a.m.) noise levels to account for the greater sensitivity to noise during that time period. The CNEL is identical to

the L_{dn} , except it also adds a 5 dB penalty for noise occurring during the evening (7:00 p.m. to 10:00 p.m.).

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Groundborne vibration related to human annoyance is generally related to velocity levels expressed in vibration decibels (VdB). However, construction-related groundborne vibration in relation to its potential for building damage can also be measured in inches per second (in/sec) peak particle velocity (PPV) (Federal Transit Administration, May 2006). Based on the FTA's *Transit Noise and Vibration Impact Assessment* and the California Department of Transportation's 1992 *Transportation-Related Earthborne Vibration, Technical Advisory*, vibration levels decrease by 6 VdB with every doubling of distance.

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, libraries, and parks are most sensitive to noise intrusion and therefore have more stringent noise exposure targets than commercial or industrial uses that are not subject to impacts such as sleep disturbance. Sensitive land uses generally should not be subjected to noise levels that would be considered intrusive in character. Therefore, the location, hours of operation, type of use, and extent of development warrant close analysis in an effort to ensure that noise-sensitive receptors are not substantially affected by noise.

Noise Standards

Federal Noise Policies. There are no Federal noise requirements or regulations that apply directly to the City of La Verne. However, there are Federal regulations that influence the audible landscape, especially for projects where Federal funding is involved. For example, the Federal Highway Administration (FHWA), which requires abatement of highway traffic noise for highway projects through rules in the Code of Federal Regulations (23 CFR Part 772), the Federal Transit Administration (FTA), and Federal Railroad Administration (FRA). Each agency recommends thorough noise and vibration assessments through comprehensive guidelines for any highway, mass transit, or high-speed railroad projects that would pass by residential areas.

The Federal Aviation Administration (FAA) has prepared guidelines for acceptable noise exposure in its Federal Aviation Regulations (FAR) Part 150 Noise Compatibility Planning program for airports. The program is aimed at balancing an airport's operational needs and its impact on the surrounding community. Its purpose is to reduce noise impacts on existing incompatible land use and to prevent the introduction of new incompatible land uses in the areas impacted by aircraft noise. It establishes standard noise methodologies and noise metrics, identifies land uses normally compatible with various levels of airport noise, and provides for voluntary development and submission of noise exposure maps and noise compatibility programs by airport operators.

Federal Vibration Policies. The FTA has published guidelines for assessing the impacts of groundborne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects. FTA guidelines show that a vibration level of up to 102 VdB (an equivalent to 0.5 in/sec in RMS) (FTA 2006) is considered safe for buildings

consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 in/sec in RMS). The threshold of perception of vibration is 0.01 in/sec PPV (FTA, Office of Planning and the Environment, 2006).

State Noise Policies. Title 24, Section 3501 et seq. of the California Code of Regulations codifies California Noise Insulation Standards. This code section uses the CNEL as its primary noise evaluation measurement. The CNEL measurement assesses noise variation during different times of the day for the purposes of averaging noise over a 24-hour period. Essentially, CNEL takes average sound levels at an observation point and adds a weighted penalty to those sounds that occur during the evening and nighttime hours. An interior noise level of 45 dBA CNEL is often considered the desirable noise exposure level for single-family residential units. An exterior noise level of 65 dBA is generally considered an acceptable level for residential and other noise-sensitive land uses.

State Vibration Policies. There are no State standards for traffic-related vibrations. The California Department of Transportation's (Caltrans) position is that highway traffic and construction vibrations generally pose no threat to buildings and structures. For continuous (or steady-state) vibrations, however, Caltrans considers the architectural damage risk level to be somewhere between 0.2 and 2.0 inches/second (Caltrans, 2002).

City of La Verne Noise Policies. The Noise Element of the City of La Verne General Plan defines issues, goals, policies, and implementation measures related to noise conditions in the City. The specific policies of the Noise Element that are relevant to the proposed project are as follows:

- Policy 1.1a: Enforce the Noise Control Ordinance to assure that all new development is consistent with the land use compatibility criteria, exterior and interior noise standards.*
- Policy 1.1d: Require all new residential construction in areas with an exterior noise level greater than 60 dB to include sound attenuation measures that reduce interior noise levels to the standards shown in Table N-2.*
- Policy 1.1.f: Consider the noise of a proposed project in both absolute and relative terms. A proposed project will be considered to have a significant adverse impact on the environment if the expected noise increase exceeds 5 dB, even though it may not exceed the standards shown in Table N-2. Sound attenuation measures will be required as a condition of approval.*
- Policy 1.1.j: Require that new multifamily projects that abut single-family uses provide noise barriers to protect adjacent areas.*
- Policy 2.2.a: Encourage installation of double glazing, dense landscaping and other noise reduction measures by homeowners along the proposed freeway route. Require such measures in new construction.*
- Policy 4.1.c: Require construction of landscaped soundwalls with new development adjoining freeways, transit lines and other high noise impact facilities as determined by the Community Development Department through environmental review.*

La Verne Municipal Code Chapter 8.20 Noise Control, Section 8.20.010 states that, Ordinance No. 11,773 of the County of Los Angeles, known as the "noise control ordinance of the County

of Los Angeles,” is adopted by reference under authority of Section 50022.9 of the Government Code of the State. Section 8.20.020, Amendments, D. Section 501(c) shall read as follows:

CONSTRUCTION:

1. Engaging in noise construction activities between 8 p.m. and 7 a.m. on weekdays or any time on Sunday or a legal holiday. “Noisy Construction Activity” is any construction, demolition, drilling or repair work and any earth moving which makes loud noises to the disturbance of persons occupying any place of residence. It includes, but is not limited to, the use of any air compressor, jack hammer, power driven drill, riveting machines, excavating, diesel powered truck, tractor or other earth moving equipment and hand hammers on steel or iron.

EXCEPTIONS:

2. The provisions of Section 501(c)(1) shall not apply to construction, repair or excavation by a public utility immediately necessary for the preservation of life or property and which requires immediate action. Nor shall the provisions of Section 501(c)(1) apply to work for which a variance has been issued by the Commission on Environmental Quality.

The City of La Verne Municipal Code Section 8.20.020, Amendments, specifies time-of-day constraints on construction activity; however, the City Municipal Code does not contain noise level limits pertaining to construction activity. Therefore, for the purposes of this analysis, compliance with City Municipal Code Section 8.20.020 is considered to have less than significant construction noise impacts.

a,d) The proposed project would generate temporary (construction-related) and permanent operational noise (traffic, daily residential activities, etc.). Temporary, construction-related noise would occur over the duration of site grading, on and off-site infrastructure installation, and vertical construction. The noise levels associated with project construction would be substantially higher than existing ambient noise levels in the project vicinity, but would cease upon completion of construction. Noise impacts experienced on site would vary depending on the type of construction equipment, the equipment’s location, the sensitivity of nearby land uses, and the timing/duration of construction.

During the first stage of construction, site grading and pad construction would occur. The noise sources during this stage would primarily be earthmovers, bulldozers, excavators, and heavy duty trucks. During the second stage of construction, foundation forms would be constructed along with concrete foundations. Primary noise sources would include heavy concrete trucks and mixers, cranes, and pneumatic drills. The third and fourth stages would consist of vertical construction, landscaping installation, and site clean-up. Primary noise sources associated with the third and fourth phases would include hammering, diesel generators, compressors, light-truck traffic, landscape rollers, and compactors. Table 9 shows the typical noise levels associated with operation of construction equipment at the nearest existing residential dwellings located approximately 50 feet west and southeast from the project’s boundary.

Table 9: Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Maximum Sound Levels (dBA at 50 feet)
Pile Driver	81–96	93
Rock Drills	83–99	96
Jack Hammers	75–85	82
Pneumatic Tools	78–88	85
Pumps	74–84	80
Scrapers	83–91	87
Haul Trucks	83–94	88
Portable Generators	71–87	80
Rollers	75–82	80
Dozers	77–90	85
Tractors	77–82	80
Front-End Loaders	77–90	86
Hydraulic Backhoe	81–90	86
Hydraulic Excavators	81–90	86
Graders	79–89	86
Air Compressors	76–89	86
Trucks	81–87	86

*Source: Bolt, Beranek & Newman, Noise Control for Buildings and Manufacturing Plants, 1987.
dBA = A-weighted decibels, ft-lb/blow = foot-pounds per blow*

The first and noisiest stage of construction is typically site preparation, which usually involves earthmoving or grading, compaction of soils, and the removal of excess materials. Construction during this stage is expected to require the use of a few earthmovers, bulldozers, water trucks, and pickup trucks. The proposed project would not require the use of exceptionally noisy equipment such as pile drivers or rock drills. Therefore, the noisiest equipment would be scrapers and bulldozers, producing approximately 82 to 84 dBA L_{max} at 50 feet. A doubling of sound energy yields an increase of three decibels, so multiple pieces of such equipment operating together would cause relatively small increases in dBA above the decibel levels associated with one piece of such equipment. The worst-case combined noise level during the site preparation phase of construction is estimated to be 93 dBA at a distance of 35 feet from the active construction area. Therefore, adjacent residential uses to the west could be subjected to periodic construction noise levels of approximately 93 dBA. The City General Plan requires that construction in residential areas exceeding 60 dB include attenuation measures. **Therefore, temporary construction-related noise is considered a potentially significant impact and requires mitigation.**

To address temporary construction noise impacts, the City of La Verne limits construction activities to the hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday, and prohibits construction anytime on Sundays and legal holidays. In combination with existing

construction noise standards established by La Verne, **implementation of Mitigation Measures NOI-1 through NOI-4 would further reduce construction-related noise impacts to a less than significant level.**

- NOI-1 Mufflers.** During all project site excavation and grading, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards.
- NOI-2 Stationary Equipment.** To the extent feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors to the west and southeast of the site.
- NOI-3 Equipment Staging.** To the extent practical, the construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors to the west and southeast of the site during all project construction.
- NOI-4 Construction Limits.** During all project site construction, the construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday. No construction shall be allowed on Sundays and public holidays.

The above mitigation would satisfy City requirements for construction noise attenuation. **Therefore, impacts would be less than significant.**

- b) Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from trucks passing. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration as vibration rapidly diminishes in amplitude with distance from the source. In the U.S., the ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB).

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration in the vicinity of the proposed project are construction equipment, traffic on rough roads, and heavy duty vehicle traffic on roadways. If a roadway is smooth, the groundborne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Construction activity on the project site would be temporary, and the use of heavy equipment would be limited to the excavation, site preparation, and building construction phases. As construction of the outer shell of the residential dwellings progresses, the residence itself would contain much of the construction activity, and the likelihood of using bulldozers, jackhammers, and other heavy equipment decreases. Trucks would still be anticipated to bring construction materials to the site throughout the building phases, which may periodically generate vibrations that could be felt by nearby receptors; however, these vibrations would likely not persist for long periods. Table 10 shows typical groundborne vibration levels for construction equipment that may be used by the project, based on the FTA's *Transit Noise and Vibration Impact Assessment* (May 2006).

Table 10: Typical Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB at 25 Feet
Large Bulldozer	87
Loaded Trucks	86
Jackhammer	79

Source: Federal Transit Administration, 2006

The greatest potential source of vibration during project construction would be large bulldozers, which produce up to 87 VdB of groundborne vibration at 25 feet. With distance attenuation, the vibration level reaching residences located 35 feet from the project site would be 83 VdB. Although this range of groundborne vibration levels would result in potential annoyance at residences adjacent to the project site, they would not cause any damage to the buildings. Sensitive receptors would only experience vibration levels of 83 VdB intermittently when construction occurs at the project boundary. Construction vibration, similar to vibration from other sources, would not have any significant effects on outdoor activities, such as those in the backyards at the residences to the west and southeast. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 in/sec in RMS). Construction would be required to comply with the City's construction noise ordinance, which restricts activities to between 7:00 a.m. and 8:00 p.m. Monday through Saturday. No construction shall be allowed on Sundays and public holidays. This restriction would prevent construction vibration impacts from disturbing the sleep of nearby residents. Therefore, the proposed project's construction activity would not involve any vibration sources that would expose people or structures to excessive or prolonged groundborne vibration or groundborne noise levels. **Impacts would be less than significant.**

- c) The existing noise environment includes traffic noise mostly on Golden Hills Road. Noise from motor vehicles is generated by engine vibrations, interaction between tires and the road, and exhaust systems. The proposed project would potentially increase ambient noise by increasing vehicle trips on Golden Hills Road. Since the project proposes only 14 homes, the associated daily vehicle trips would be fewer than 50 trips a day. For every doubling of traffic volumes, an increase of 3 dBA would be generated; however, project-related vehicle trips would be less than 10 percent of the baseline traffic volumes on Golden Hills Road. The maximum noise level increase as a result of adding project-related vehicle trips would be 0.5 dBA or less. An increase of 3 dBA is generally required to create a perceptible increase

in noise. Long-term noise generated by the project, therefore, would not be perceptible. The level of noise generated by traffic would not exceed the 65 CNEL exterior noise standard for residential uses. No significant increase in ambient noise would be generated. No mitigation measures are required for off-site land uses. **Therefore, traffic noise impacts would be less than significant.**

e-f) The proposed project is not within the noise impact zone of any airport or private airstrip. The project site is approximately 4 miles northeast of Bracket Field Airport, a general aviation use airport. Therefore, the proposed project would not expose future residents to significant levels of aircraft noise and **there would be no impacts.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XIII. POPULATION AND HOUSING

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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) According to data provided by the California Department of Finance (DOF), the population of the City of La Verne is 33,042, and the City's average household size is 2.72 residents (DOF, 2015). The Southern California Association of Governments (SCAG) estimates that the population of La Verne will continue to grow to 40,547 persons by the year 2035.

The construction of additional residential dwellings could directly generate population growth by attracting new residents from outside the City, thereby contributing to a permanent increase in population within the project area. The proposed project involves the construction of 12 new single-family homes. Using the City's average household size of 2.72 persons per household, the project could increase the City's overall population by approximately 33 residents. This equates to approximately 1.3 percent of the City's total projected population growth through 2035. The project would not require substantial upgrades to the surrounding utility infrastructure and therefore the project's construction related jobs should be considered short-term in nature. An increase in population by 1.3 percent is not a significant increase in the City's population. Therefore, **population growth impacts would be less than significant.**

b-c) The project site contains two existing single-family homes, which will be incorporated into the proposed project and will not be demolished. Because the existing homes will be incorporated in the proposed development, it would not displace a substantial number of people or housing and **no impacts to population or housing would occur.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a(i)) The La Verne Fire Department (LVFD) would provide fire protection services to the project site. The project site is surrounded by residential development and open space. The closest fire stations to the project site are Station #2 on Wheeler Avenue approximately 1.5 miles southwest of the site and Fire Station #3, located approximately 2 miles (driving distance) southeast of the site at 5100 Esperanza Drive.

Development of the proposed residential uses may incrementally increase the demand for fire protection services. However, the City will require the developer to coordinate directly with the LVFD to ensure the project’s design and construction meets the fire protection requirements for this area or fire zone, including but not limited to adequate vehicle access, adequate fire flow, the use proper fire resistant construction methods, and a sufficient number on-site fire hydrants.

As designated by CAL FIRE, the project site is located within a Local Responsibility Area - Very High Fire Hazard Severity Area.³ Adjacent wildlands to the north would potentially pose a wildfire threat for residents of the proposed project, so the proposed project would be required to comply with the requirements of Chapter 15.37 of City Municipal Code: Very High Fire Hazard Severity Zone Regulations. Prior to the issuance of a grading permit, the applicant would be required to submit fuel modification plans to the City. Residential homes built under the proposed project would be subject to special building standards,

³ CAL FIRE, Very High Fire Hazard Severity Zones in LRA: Los Angeles County, http://frap.fire.ca.gov/webdata/maps/los_angeles/LosAngelesCounty.pdf (Accessed October 26, 2015).

which would reduce fire hazards to residents. Construction of new homes in this area would incrementally increase the need for fire protection services, and the project would only have one access point and a long cul-de-sac for access. However, the Fire Department has indicated the project road design will allow adequate access and does not object to construction of the proposed number of homes in this location based on fire protection needs.

The City of La Verne collects fire service and development fees from all development projects proposed in the City. The proposed project would be required to pay the applicable development impact fees, which would be used to fund the capital costs associated with acquiring land for new fire stations, constructing new fire stations, purchasing new fire equipment for such stations, and providing additional staff as needed to serve the community of La Verne. The La Verne Municipal Code also requires that final building plans be consistent with City and/or State fire prevention/protection standards, including, but not limited to, fire sprinklers, sufficient emergency access, emergency notification procedures, and fire hydrant locations. **Therefore, impacts to fire services would be less than significant.**

a(ii)) Police services to the project site would be provided by the La Verne Police Department (LVPD). The project site is surrounded by residential development and open space. The police station nearest to the project site is located at 2061 Third Street, approximately 3.2 miles south of the project site. The LVPD currently has 39 sworn officers, 18 staff members, a reserve force of up to 25 officers, and a retired senior volunteer program consisting of 35 members.

The proposed development of 12 residential units may incrementally increase the demand for police protection services. However, the City monitors police staffing levels as part of the annual budgeting process to ensure that adequate police protection can continue even after new development projects are approved and constructed. Funding for new police facilities as a result of increased demand would be provided by the City's General Fund and property taxes paid by property owners throughout the City including future property owners associated with the proposed project. **Therefore, impacts to police services would be less than significant.**

a(iii)) The proposed project site is located within the Bonita Unified School District (BUSD). Schools within this district include Oak Mesa Elementary School at 5200 North Wheeler Avenue, Ramona Middle School at 3490 Ramona Avenue, and Bonita High School at 3102 "D" Street. The proposed development of 12 residential units would incrementally increase the number of students within the Bonita Unified School District. The student generation factor for Bonita Unified School district is 0.4 elementary student for every single-family residence, 0.1 middle school student for every single-family residence, and 0.2 high school student for every single-family residence.⁴ Therefore, the proposed project would generate a total of approximately 10 students, including 5 elementary students, 2 middle school students, and 3 high school students. The students generated by the proposed project would represent an incremental increase in the students served by BUSD schools. In addition, the

⁴ Brasada Residential Project EIR, PBS&J, September 20, 2010, <http://www.cityofsandimas.com/download.cfm?ID=31893> (website accessed August 11, 2015).

project developer would pay development impact fees to the BUSD to reduce any potential impact on area schools, which is considered full mitigation under CEQA. **Therefore, impacts to schools would be less than significant.**

a(iv)) Please refer to Section XV, Recreation.

a(v)) The proposed project would incrementally increase the local population, which may incrementally increase the demand for library services within the City. However, La Verne’s libraries are funded by property taxes, which are levied throughout all Los Angeles County unincorporated areas and contract cities. The payment of these property taxes would adequately offset project related impacts to library services. **Impacts to other City services would be less than significant.**

Impacts to other public facilities (e.g., sewer, storm drains, and roadways) are discussed in Section XVI (Transportation/Traffic) and Section XVII (Utilities and Public Services) of this Initial Study.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XV. RECREATION

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a) The City of La Verne owns and operates a number of parks in the vicinity of the project site and throughout the City. The total park acreage within the City is approximately 110 acres (City of La Verne, 2015). Golden Hills Wilderness Park is the nearest park to the proposed project site. The park is located 0.35 mile southeast of the project site and can be accessed from Golden Hills Road. The park’s on-site amenities include a nature trail, trash receptacle benches, monument signage, and information kiosk.

The project would construct 12 single-family residential units, which would incrementally increase the demand for park facilities. Using the City’s average household size of 2.72 persons per household, the project could increase the City’s overall population by approximately 33 residents (12 units × 2.72 persons/unit) or 1.3 percent of the City’s total projected population growth through 2035. To offset the incremental increase in park demand associated with the proposed project, the City will require the payment of park fees, as specified in the La Verne Municipal Code Chapter 3.20 - Parks and Recreation

Charges, and as further specified in the adopted fee schedule. The payment of required park fees would be used to maintain, construct or dedicate parks within the City. **Impacts on existing City parks would be less than significant.**

- b) The proposed project does not include any on-site recreational facilities, although the area adjacent to the southern entrance where the oak trees are located will be left as a scenic open space area and will create an aesthetic entrance to the neighborhood. **Impacts associated with the construction of on-site parks would be less than significant.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XVI. TRANSPORTATION/TRAFFIC

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing a measure 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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 county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is located north of Golden Hills Road adjacent to the San Gabriel Foothills in the City of La Verne. The only nearby major transportation route in the area is State Route 210 (SR-210) 1.7 miles south of the project site. Vehicular access to the site would be provided from Golden Hills Road. Internal vehicular access to each proposed residence would be provided by a single lane extending from Golden Hills Road through the project and ending in a cul-de-sac.

The project’s potential impact on the circulation system within the City and immediately surrounding areas was evaluated by LSA Associates, Inc. (October 2015). The full text of this Trip Generation Memo can be found in Appendix E. The Trip Generation Memo was prepared pursuant to guidance received primarily from the City of La Verne Engineering Staff. The memo was completed according to the City of La Verne traffic impact assessment policies, which requires analysis pursuant to the Los Angeles County Traffic Report Guidelines (1997) and the Los Angeles County Congestion Management Program (CMP) (2010) criteria. The City of La Verne requires the mitigation of all significant traffic impacts to a Level of Service D or better during peak morning (a.m.) or afternoon (p.m.) periods.

The traffic memo compared the proposed zone change to existing zoning and studies the sight distance issues at the project access for the project location.

a-b) The existing traffic volumes lane configurations, and stop controls were used to evaluate traffic operations at the study intersection for the a.m. and p.m. peak hours as discussed below.

Existing Conditions

The project site contains two detached single-family residences, one of which is currently occupied. This residence contributes minimal vehicular traffic (approximately 10 trips per day) on Golden Hills Road.

Future development of the site as permitted by existing zoning would potentially result in a total of 10 single-family dwelling units. Trip generation from these units is detailed in Table 11. Under this condition, the project site would generate approximately 105 daily trips.

Table 11: Trip Generation (Existing Zone Potential)

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily
	In	Out	Total	Out	In	Total	
Single-Family Residential, PR 2D ¹ (9 Dwelling Units)							
Trips/Unit	0.19	0.56	0.75	0.63	0.37	1.00	9.52
Trip Generation	2	6	8	6	4	10	95
Single-Family Residential, PR 1/5D ² (1 Dwelling Unit)							
Trips/Unit	0.19	0.56	0.75	0.63	0.37	1.00	9.52
Trip Generation	0	1	1	1	0	1	10
Total Trip Generation	2	7	9	7	4	11	105

¹ Parcel zoned at 2 dwelling units per acre. Assessor’s parcel number is 5 acres.

² Parcel zoned at 1 dwelling units per acre. Assessor’s parcel number 6.4 acres.

Source: Sage Canyon Residential Project Trip Generation Memo, see Appendix E.

Existing Plus Project Conditions

The project’s vehicle trips were estimated by applying standard trip generation rates based upon Institute of Transportation Engineer’s (ITE) *Trip Generation*, 9th Edition. The trip generation estimates were calculated and evaluated based upon a residential land use (Land Use 210: “Single-Family Detached Housing”). The project would generate a total of 133 gross vehicle trips with 11 trips during the a.m. peak hour and 14 trips during the p.m. peak hour (the rest of the trips would occur outside peak hours). Project trip generation is detailed in Table 12.

Table 12: Trip Generation (Proposed Zone Change)

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily
	In	Out	Total	Out	In	Total	
Single-Family Residential (14 Dwelling Units)							
Trips/Unit	0.19	0.56	0.75	0.63	0.37	1.00	9.52
Trip Generation	3	8	11	9	5	14	133

Source: Sage Canyon Residential Project Trip Generation Memo, see Appendix E.

The proposed zone change would allow for the development of additional dwelling units on the site. Compared to the existing zoning, the site would accommodate three additional dwelling units, which would generate additional trips. Table 13 compares the trip generation of the site under the existing and proposed zoning.

Table 13: Trip Generation Comparison

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily
	In	Out	Total	Out	In	Total	
Proposed Zone Change	3	8	11	9	5	14	133
Existing Zone	2	7	9	7	4	11	105
Net Trip Generation Difference	1	1	2	2	1	3	29 (28%)

Source: Sage Canyon Residential Project Trip Generation Memo, see Appendix E.

The project would generate a net increase of 29 trips, with 2 additional trips during the a.m. peak hour and 3 additional trips during the p.m. peak hour. Therefore, the proposed zone change will cause a nominal increase of trips generated from the site. **Impacts to project area circulation system would be less than significant.**

Under the Congestion Management Plan, level of service impacts to intersections must be evaluated if a project generates 50 or more peak hour trips. The proposed project would generate fewer than 50 peak hour trips. Therefore, it would generate a minimal increase in peak hour trips, which would not have potential to cause a significant impact to project area intersection or roadway levels of service. **The project would not conflict with the Congestion Management Plan, and impacts are less than significant.**

- c) Brackett Field, a general aviation facility, is located approximately 3.5 miles southwest of the project site. Therefore, the proposed project would not change any air traffic patterns,

increase the number of flights, impose any additional safety risks for airport operations, or necessitate a change in location for the airfield. **No impacts to public airports would occur.**

- d) The project's vehicular access route would be from Golden Hills Road. Vehicle access to the site would be limited by the proposed construction of a private gated entrance. Private streets constructed in compliance with City standards would provide access to the proposed residences.

A sight distance analysis was conducted at Golden Hills Road/Project Access. Based on the speed limit (40 mph) and classification of Golden Hills Road, the project access requires 300 feet of stopping sight distance for adequate ingress and egress movements (entering and exiting the property). Since approximately 800 feet of sight distance is available, there is sufficient sight distance for safe vehicle movement at the project access. **Therefore, project roadway design is considered safe and impacts would be less than significant.**

- e) The proposed project would provide access on Golden Hills Road. Internal vehicular access to each proposed residence would be provided by a single lane extending from Golden Hills Road through the project and ending in a cul-de-sac. Golden Hills Road is a secondary arterial with sufficient width to allow emergency vehicles, such as fire trucks, access to the project area.

The nearest fire station within the project study area is Fire Station #3, located approximately 1 mile northwest of the site at 5100 Esperanza Drive. The La Verne Municipal Code requires that final building plans be consistent with City and/or State fire prevention/protection standards, including with respect to sufficient emergency access.

This development will require two modifications to the Hillside Development Overlay Zone (HDOZ) requirements: it will have a cul-de-sac length that exceeds the current standard and the development will only have one access point instead of the current required two points. The property is within a hillside fire zone, but the City Fire Department has reviewed the design of this specific case and has indicated it can support the two requested HDOZ modifications for this specific development.

The proposed project shall be designed in accordance with City/County/State requirements for adequate emergency access. **Impacts are less than significant.**

- f) Bus transit within the project area is provided by Foothill Transit. There are no bus stops within one mile of the project site. The availability of public transportation within the vicinity of the project site is consistent with the City's General Plan. The project would not impede the use of or decrease the performance of public transportation. **Impacts would be less than significant.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with Federal, State, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) National Pollutant Discharge Elimination System (NPDES) permits are issued by the Regional Water Quality Control Board (RWQCB) to regulate waste discharges to "waters of the U.S.," which includes rivers, lakes, and their tributary waters. Waste discharges include discharges of storm water and construction project discharges. Construction of a project resulting in the disturbance of more than one acre requires an NPDES permit. Construction project proponents are also required to prepare a Storm Water Pollution Prevention Plan (SWPPP), which would ensure compliance with the RWQCB stormwater discharge requirements.

The City of La Verne Public Works Department is responsible for the operation and maintenance of the local sewer system. In addition, the City is located in the Los Angeles County Sanitation District (LACSD) and within the District No. 21 service boundary.

Wastewater generated by the proposed project would be discharged into a proposed sanitary sewer system that would be located in the proposed driveway and connected to the existing 8-inch sewer main located in the existing driveway on the project site. The existing sewer main is owned and operated by the Los Angeles County Sanitation District and leads to the Pomona Water Reclamation Plant.

This facility has a design capacity of 15 million gallons per day (mgd) and currently processes an average flow of 8 mgd. Based upon the LACSD's published sewer generation rates (Table 1. - Loadings for Each Class of Use), each residential dwelling would generate approximately 260 gallons per day of wastewater. Therefore, the 12 units proposed would generate a total of 3,120⁵ gallons per day. This equates to approximately 0.04⁶ percent of the Pomona Water Reclamation Plant's remaining processing capacity (approximately 7 mgd). Wastewater flows from the proposed project would not exceed the existing capacity at the receiving water treatment facility.

Prior to the issuance of grading permits, the project applicant would be required to satisfy LACSD's requirements for the payment of fees and/or the provision of adequate wastewater facilities. The District is authorized by the California Health and Safety Code to charge a fee for connecting (directly or indirectly) to the District's Sewerage System or 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 a proposed project. The payment of a connection fee would be required before a permit to connect to the sewer is issued. **Because the proposed project would (1) comply with the waste discharge prohibitions, (2) would not exceed wastewater treatment plant capacity, and (3) would comply with LACSD's fee payment requirements, impacts would be less than significant.**

- b) The City's water supply consists of approximately 34 percent groundwater and 66 percent imported water purchased from the Three Valleys Municipal Water District (TVMWD) which treats water received from the Metropolitan Water District of Southern California (Metropolitan) via the Colorado River and State Water Project (City of La Verne, 2010 Urban Water Management Plan, 2011). The City would be the water purveyor to the project site. An existing 12-inch water main in the existing driveway will be extended to the project site to connect with proposed lines in the new driveway.

Water supply projections for the City of La Verne are presented in Table 16 of the City's 2010 Urban Water Management Plan (UWMP). The City of La Verne anticipates a slight increase in water demand from year 2010 to 2035 (City of La Verne 2010 Urban Water Management Plan 2011). As shown in Table 6 of the UWMP, the City shows an increase in demand from 8,127.2 acre-feet per year in 2015 to 8,384.7 acre-feet per year in 2035. The UWMP included a comparison of projected demand and projected supply (Table 24 through Table 26) and demonstrated that the reliability of La Verne's supply will be adequate to meet normal year, single dry year and multiple dry year demand conditions through the UWMP's 2035 planning horizon. According to the UWMP, the gallon per capita per day

⁵ 260 gpd × 12 units = 3,120 gpd

⁶ 3,120 gpd/7,000,000 gpd × 100 = 0.04 percent

(GPCD) for the baseline assumptions is 268.2 GPCD. This means that the 33 residents that would result from the construction of the project would require approximately 8,850⁷ gallons per day or 9.9 acre-feet per year (AFY). Table 26 of the UWMP shows the City's projected supply and demand during multiply dry years. According to this table, the City would have a water supply of 9,182 AFY and demand of 8,938 AFY during the fifth consecutive dry year. Based on this, the City would have a surplus of 244 AFY. Therefore, based on this information, the proposed project would require 4.05 percent of the project water surplus during the fifth year of a multiply dry year scenario. This is an incremental increase in the City's projected water demand. Therefore, the proposed project would not require new construction of water facilities or expansion of existing water facilities, as capacity would be available to support the proposed residential uses.

Additionally, due to the continuing drought conditions in California, Governor Brown declared a State of Emergency and issued Executive Order B-29-15 calling for a 25 percent reduction in consumer water use in response to the historically dry conditions throughout California. The Governor's Order also includes mandatory actions aimed at reducing water demands, with a particular focus on outdoor water use. In response to this, each water agency is assigned a tier based on its water usage from June through September 2014. At its May 18 meeting, the La Verne City Council enacted Phase VII Water Use Restrictions of the City's Water Conservation Ordinance. Effective immediately, residential customers receive a baseline allowance of 22,000 gallons for two months; all other water customers are required to reduce their demands by 30 percent from the corresponding period during calendar year 2013. The mandatory restrictions on water use under Phase VII of the City's Ordinance include a variety of measures including but not limited to prohibition of hose washing paved surfaces; washing of motor vehicles without a handheld water container; and cleaning, filling, or maintaining water levels in decorative fountains, or other similar aesthetic structures unless such water is part of a recycling system.

Therefore, with compliance with the City's water restrictions, the proposed project's demand on water supply would be reduced and would not result in the need to expand or construct new water facilities. **Impacts to water services would be less than significant.**

- c) Storm water runoff currently runs into Golden Hills Road and occasionally floods the golf course and homes south of the site. The proposed project grading will result in runoff flowing into the proposed access road. This new road will also act a levee and provide improved flood protection for the project site and downstream properties. An existing maintenance transfer drain will also be relocated to just east of the new road to help provide improved drainage and flood protection. **Therefore, impacts would be less than significant.**
- d) As discussed in XVII.b), the City's UWMP determined that the City will have enough water to meet demands through 2035 in normal, single, and multiple dry years. Despite confirmation of water supplies within the City, the proposed project would be required to comply with the menu of water conservation measures contained within Ordinance No. 822 and 1009. These ordinances amended Chapter 13.15 of the City's Municipal Code and established water conservation, use and restriction measures. The collective purpose of

⁷ 33 residents × 268.2 GPCD = 8,850.6 gpd × 365 days = 3,230,469 gpy / 325,851 AF = 9.913 AFY

these ordinances was “to foster water conservation and to assure that wasteful water practices are eliminated throughout the City’s service area” (City of La Verne Urban Water Master Plan 2010). Essentially, this Municipal Code section establishes a tiered system of water use limitations for various uses, specific water use restrictions and regulations (including operational standards for land uses), water efficient landscaping standards, and an enforcement system to dis-incentivize non-compliance. The proposed project would result in an incremental increase in the number of units that could be built on the property (i.e., 19 vs. 12) so water use would be incrementally increased. All City residents, including new development, would be required to comply with the Governor’s recent drought response water conservation mandate. In addition, the 2010 UWMP accounted for future growth in the Los Angeles area and determined that existing water infrastructure is available at the site, and the City requires implementation of water conservation measures pursuant to Ordinance 822 and 1009. For these reasons, project **impacts to water supplies would be less than significant.**

e) Refer to response to XVII.b) **Impacts would be less than significant.**

f) The City of La Verne’s contractor for trash and recycling pickup is Waste Management. Based on a per household solid waste generation rate of approximately 12.23 pounds per day (City of Los Angeles Thresholds Guide), the 12-unit residential development would generate approximately 147⁸ pounds (0.09 ton) of waste per day and 32 tons of waste per year. A majority of the solid waste generated by the project would be transported to the Azusa Land Reclamation Co. Landfill located at 1211 West Gladstone Street in the City of Azusa. This facility includes 266 disposal acres, with a maximum permitted throughput of 8,000 tons per day and a maximum permitted capacity of 80.6 million cubic yards.⁹ The estimated closure date for this facility is January 2045.¹⁰ The project’s daily generation rate of 0.09 ton per day would take up approximately 0.001 percent of the daily permitted throughput.

Other regional landfills, such as the Mesquite Regional Landfill would also be able to accept solid waste generated by the proposed residential development. The proposed project would not significantly affect current operations or the expected lifetime of these landfills. On-site uses would be required to comply with the City and State waste reduction and recycling standards. **Therefore, potential impacts associated with landfill capacity would be less than significant.**

g) The proposed project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards, thereby ensuring that the solid waste stream to the waste disposal facilities is reduced in accordance with existing regulations. **Impacts are considered less than significant and no mitigation is required.**

⁸ 12.23 lbs/day × 12 units = 146.76 lbs/day

⁹ Facility/Site Summary Details: Azusa Land Reclamation Co. Landfill, CalRecycle, <http://www.calrecycle.ca.gov/SWFacilities/Directory/19-AA-0013/Detail/> (website accessed October 7, 2015).

¹⁰ Ibid.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, 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?

	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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a) Construction activities would occur within a vacant parcel, which includes limited biological resources. However, mitigation measures have been identified (Mitigation Measures BIO-1 through BIO-9) to reduce potential impacts to biological resources to a less than significant level. Although the project area is not anticipated to contain paleontological or archaeological resources, it may contain previously undetected subsurface archaeological resources. Mitigation measures have been identified (Mitigation Measures CUL-1 and CUL-2) to mitigate any impacts associated with the discovery of previously undetected subsurface cultural resources during excavation activities. Adherence to this measure would reduce cultural impacts to a less than significant level. **After mitigation, potential impacts of the project on these resources would be less than significant.**

b) As presented in the discussion of environmental checklist Sections I through XVII, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. Due to the limited scope of direct physical impacts to the environment associated with the proposed project, the impacts are project-specific in nature. **Consequently, the project along with other cumulative projects, would result in a less than significant cumulative impact with respect to all environmental issues.**

- c) In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. The South Coast Air Basin is currently designated as a non-attainment area for ozone, PM₁₀, and PM_{2.5}. The development of the proposed project would contribute less than significant amounts of air pollutant emissions on both a short-term and long-term basis. Adherence to SCAQMD dust control measures will further reduce short-term construction air quality impacts, and no project specific mitigation is required.

On-site soils may be contaminated by historical dumping and excavation of the site may result in the release of hazardous materials, so Mitigation Measures GEO-1 and HAZ-1 will reduce potential impacts related to hazards to less than significant levels.

Construction-related noise and exterior noise levels were found to exceed applicable thresholds, so Mitigation Measures NOI-1 through NOI-4 are required to reduce short-term construction noise impacts to less than significant levels.

The project would not exceed the City's Level of Service guidelines or cause sight line or queuing impacts. In addition, Golden Hills Road provides adequate emergency vehicle access to the project and surrounding area.

With implementation of all the recommended mitigation measures, potential impacts on natural and man-made environment will be less than significant levels.

SUMMARY OF MITIGATION MEASURES

BIO-1 Pre-Construction Raptor and Other Nesting Bird Surveys. Within 30 days prior to the commencement of construction (if between January 15 and September 1), a qualified biologist will perform a raptor nesting survey that will consist of a single visit to ascertain whether there are active raptor and other protected bird nests within 300 feet of the project footprint. Nests will be searched for in the abandoned buildings or other unused structures, and trees and shrubs. This survey will also identify the species of nesting raptor and to the degree feasible, nesting stage (e.g., incubation of eggs, feeding of young, near fledging). Nests will be mapped (not by using GPS because close encroachment may cause nest abandonment). Avoid work in riparian areas during active breeding season; typically designated as February 15 through August 30 by the CDFW Guidelines. If vegetation removal must occur during this avoidance period, then a nest survey by a qualified biologist is required. The nest survey shall be conducted for five consecutive days and no more than three days prior to clearing. If an active nest is observed, then the nest location shall be fenced off surrounding an adequate radius buffer zone as determined by biological monitor; the buffer zone shall not be disturbed until the nest is inactive; biological monitoring will occur during vegetation removal activities.

BIO-2 Burrowing Owl. To ensure direct mortality of burrowing owls is avoided, a pre-construction survey will be conducted within 30 days prior to ground disturbance at the site. The pre-construction survey shall be prepared by a qualified biologist and submitted to the City. This survey shall be required and conducted no more than 30 days prior to initiation of ground-disturbing activities. If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the study area during the 30-day pre-construction survey, consultation with the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) shall take place and no construction activity shall take place within a buffer zone of adequate width as determined in consultation with CDFW during the breeding season of an active nest/burrow until it has been determined that the nest/burrow is no longer active and all juveniles have fledged the nest/burrow. No disturbance to active burrows shall occur without appropriate permitting through the USFWS and/or CDFW.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, passive relocation may be conducted following consultation with the CDFW and USFWS. If active nests are identified in a development area, the nests shall be avoided or the owls actively or passively relocated to an appropriate off-site location, to the satisfaction of the USFWS or the CDFW. To avoid active nests adequately, no grading or heavy equipment activity shall take place in a buffer zone of

adequate width as determined in consultation with CDFW during the breeding season (February 1 through August 31). This measure shall be implemented to the satisfaction of the City Community Development Department. If active burrowing owl burrows are detected outside the breeding season, passive and/or active relocation may be undertaken following consultation with and approval by the CDFW and/or USFWS. One-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied and backfilled to ensure that animals do not reenter the holes/dens. This measure shall be implemented to the satisfaction of the City Community Development Department.

BIO-3

Pre-Construction Bat Survey. To prevent impacts on daytime bat roosts and maternity roosts, a qualified biologist will be retained to conduct bat and bat roosting site surveys prior to commencement of mature tree removal activities. This pre-construction survey will be conducted at any mature tree proposed for removal and within 100 feet of the project limits. If roosting sites, such as vacant farm buildings, or bats are not found, a report confirming their absence will be sent to the CDFW and no further mitigation will be required.

If the pre-construction survey finds bats to be roosting, and tree removal is scheduled to occur between October 1 and March 30 (outside of the maternity season of April 1 through September 30), the bats will be evicted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFW. These techniques allow the bats to exit the roosting site but prevent reoccupation of the site. Where applicable for tree roosts, the following two-step cutting process would occur: Surrounding branches that do not house bats at the time that the eviction would occur would be removed as step one. This would alter the condition of the roost tree, causing bats to abandon the roost. The tree can then be fully removed as step two. A visual inspection of the roost tree would be required prior to removal to verify that all bats have been successfully excluded. This work will be completed by bat exclusion professional.

If the pre-construction survey finds bats to be roosting and tree removal is scheduled to occur during the maternity season (April 1 through September 30), a qualified biologist will monitor the roost to determine if the roost site is a maternal roost. This may be determined by either visual inspection of the roost for bat pups, if possible, or monitoring the roost after the adults leave for the night to listen for bat pups. If the roost is determined to not be a maternal roost, then the bats will be evicted as described above. If the roost is determined to be a maternal roost, eviction of a maternal roost cannot occur during the nursery season, as bat pups cannot leave the roost until they have reached maturity. In this case, a buffer zone of adequate width as determined in consultation with CDFW will be established around the roosting site, within which no construction-related impacts will occur until the qualified

biologist has determined the bat pups are mature enough to permanently leave the roost.

BIO-4 Oak Tree Protection Plan. Trees should receive protective fencing along the outer perimeter of the canopy drip line (orange 36-inch high plastic type).

- To compensate for the removal of significant trees, the applicant shall replace trees at a 4:1 mitigation ratio. The relocation and/or replacement of any trees shall be shown on the project's approved landscape plans prior to issuance of a grading permit. The trees shall be planted on site, per the landscape plans, prior to issuance of a certificate of occupancy for the first residential unit. In addition,
- If there will be driving near or under the drip line, the installation of wood chips with overlaying plywood will help decrease the potential compaction of the soil.
- Any work, excavation or intrusion within the fenced areas requires prior authorization from project arborist.
- Scheduled arborist inspections and construction personnel information session to be a part of the overall project master schedule.
- The City Municipal Code (section 18.78.060) provides a replacement schedule based upon DBH caliper of any significant tree being removed.
- Care should be taken to avoid impacts to root systems and overhanging branches. Protection during grading and construction activities is imperative. California live oaks do well during times of drought but grow quickly when groundwater is available. Also, being natives, the trees need very little care and thrive when they are not manipulated. Considering this, house placement and development is essential to the health of the trees. The only care needed on the current trees is the removal of all foreign soil above the root crown on the southern end of the property. After foreign soil is removed, oak leaves shall be allowed to cover the drip line to reinstate the soil to its natural condition.
- Pruning shall be performed by or supervised by a certified arborist in accordance with OSHA and ANSI A300 Standard Practices.

BIO-5 Protection of Other Significant Trees. The applicant shall hire the services of a City-approved tree monitor during construction activities. The applicant will also need to obtain a tree removal permit prior to tree removal or pruning (if applicable) consistent with Chapter 18.78 of the City's Tree Protection and Preservation Code (City 18.78). This measure shall be implemented to the satisfaction of the City Community Development Department. Refer to Table B-1 in Appendix B of this report for a list of other City Significant Trees.

BIO-6 Replacement of Riparian Habitat. To the greatest extent feasible, the project applicant will mitigate the riparian habitat on site through either avoidance

or on-site creation of biologically equivalent or superior habitat to ensure replacement of any lost function or value of the habitat. The applicant shall provide on-site habitat at a minimum ratio of 1:1. If on-site mitigation is determined to be insufficient by the resource agencies, the applicant shall mitigate any residual on-site impacts to riparian habitat by funding off-site restoration activities at a minimum ratio of 3:1. The restoration will be done through a conservation group acceptable to the CDFW to ensure high quality habitat is preserved or restored within the same watershed as the impact area. The applicant shall obtain a Lake and Streambed Alteration Agreement to document implementation of this mitigation.

BIO-7 **Jurisdictional Impacts and Agency Permitting.** Prior to issuance of a grading permit, the developer shall obtain the necessary Clean Water Act Nation-Wide Permit from the U.S. Army Corps of Engineers, a Clean Water Act Certification from the Los Angeles Regional Water Quality Control Board, and a Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife. These permits will address impacts to identified jurisdictional land on the project site. The developer shall demonstrate to the City Planning Department that these permits have been obtained prior to issuance of a grading permit.

BIO-8 **Urban-Wildland Impact Minimization Measures.** Prior to construction, a temporary exclusionary fence will be installed between the work area and natural areas to be avoided during any mass grading activities.

Permanent fencing shall be installed around each residence to separate developed areas from the wildland/conservation areas to the north (uplands) and southeast (drainage channel). The design and location of fencing for each residence shall be at the discretion of the City during precise plan review.

Shielding shall be incorporated in project lighting designs to ensure that ambient lighting in natural open space areas and creeks is minimized as feasible. Night lighting shall be directed away from habitat areas during and after construction. Residential noise standards shall apply to projects located adjacent to natural open space and wildlife habitat areas. Undesirable State-listed invasive plants in the existing landscaping will be removed, wherever possible, and replaced with native and drought-tolerant plants, as noted in City ordinances refer to Table B-2 in Appendix B of this report. Also, refer to Cal-IPC website for alternative landscaping plant selections (<http://www.cal-ipc.org/landscaping>).

All runoff from the newly built-out, paved and landscaped areas shall be directed to permanent storm water facilities within the community infrastructure. Erosion-control measures include leaving existing vegetation in place where feasible, use of temporary erosion control measures at regular intervals throughout the rainy season, stabilizing non-active areas, and use of designated entry points, tire wash stations, street vacuuming, dust suppression, silt fencing, sandbags, gravel bag berms, erosion-control

blankets, hydroseeding using native plant species, and swales in concentrated flow areas per the Storm Water pollution Prevention Plan (SWPPP). Permanent erosion-control measures will be installed as part of the landscaping completion at end of construction.

Additional measures related to grading and land development are as follows: Vehicle repair will occur off site or in designated separate maintenance areas located away from drainage courses. Drip pans and spill kits will be used in the construction site and staging areas. Firefighting equipment (fire extinguishers) will be available on site.

BIO-9 Wildland Urban Interface and Fire Precautions. Prior to issuance of an occupancy permit, the developer shall prepare a Fuel Modification Plan for review and approval by the City of La Verne with input from the City Fire Department. The Plan shall include, but not be limited to, the height, design, and materials of project fencing, the extent of vegetation clearing (including oak tree trimming or removal) along the boundaries of the site (up to 200 feet from planned residences), and long-term maintenance responsibilities and funding (as outlined in the project Biological Resources Report by LSA Associates, Inc. dated October 2015). This measure shall be implemented to the satisfaction of the City Planning Department in consultation with the City Fire Department.

CUL-1 Prior to the issuance of a grading permit, the City shall contact local Native American tribal groups to determine if they are interested in monitoring project grading. The applicant shall allow Native American tribal representatives access to the project site to monitor grading if they so desire.

If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor shall halt work within a 100-foot radius around the find and a qualified archaeologist shall be retained to assess the significance of the find. If a significant archaeological resource(s) is discovered on the property, ground-disturbing activities shall be suspended within 100 feet of the resource. The archaeological monitor and representatives of the appropriate Native American tribe(s), the Project Applicant, and the City Community Development Department shall confer regarding mitigation of the discovered resource(s). A treatment plan and/or preservation plan shall be prepared by the archaeological monitor and reviewed by representatives of the appropriate Native American Tribe(s), the Project Applicant, and the City Community Development Department and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the project site to the culturally affiliated Native American Tribe(s) for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the Community Development Department and the appropriate Native American Tribe(s). All cultural material, excluding

sacred, ceremonial, grave goods, and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include one or more representatives of affected Native American tribal groups under the requirements of AB 52.

CUL-2 If paleontological resources (fossils) are discovered during project grading, work will be halted in that area until a qualified paleontologist can be retained to assess the significance of the find. The project paleontologist shall monitor remaining earthmoving activities at the project site and shall be equipped to record and salvage fossil resources that may be unearthed during grading activities. The paleontologist shall be empowered to temporarily halt or divert grading equipment to allow recording and removal of the unearthed resources. Any fossils found shall be evaluated in accordance with the CEQA Guidelines and offered for curation at an accredited facility approved by the City of La Verne. Once grading activities have ceased or the paleontologist determines that monitoring is no longer necessary, monitoring activities shall be discontinued. This measure shall be implemented to the satisfaction of the City Community Development Department.

GEO-1 If areas of unconsolidated fill are discovered during project grading, the developer and/or project grading contractor shall implement actions outlined in Section 5.2, Earthwork Considerations, of the project geotechnical report (Geotek September 22, 2015). If the unconsolidated fill is in excess of the guidelines identified in the Geotek report, or if the find involves the western bank of the drainage channel along the eastern boundary of the site, the grading contractor shall immediately notify City staff and the project civil and/or geotechnical engineer of the find. The project engineer shall evaluate the find and determine the most appropriate method of remediation to provide safe and sufficient fill to support project development. Any changes to the project grading or building plans that are required due to unexpected unconsolidated fill shall be approved prior to implementation by the City Engineer.

HAZ-1 Prior to issuance of a grading permit, the applicant shall provide evidence that the site has been completely surveyed for potential “dump areas” of solid wastes. This work must be carried out by a qualified environmental professional hired by the applicant but who will report directly to the City if any solid waste or hazardous materials are found. Waste that is identified shall be removed and disposed of in accordance with applicable laws and regulations. This measure shall be implemented to the satisfaction of the City Community Development Department.

HYD-1 Prior to issuance of a grading permit, the developer shall file a Notice of Intent (NOI) with the Los Angeles Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System

(NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's NOI is to be covered by the General Construction Permit has been filed with the SWQCB. This measure shall be implemented to the satisfaction of the City Engineer.

HYD-2

Prior to issuance of a grading permit, the developer shall submit to the Los Angeles Regional Water Quality Control Board (RWQCB) and receive approval for a project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. BMPs to be implemented may include (but shall not be limited to) the following:

- Potential sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles, fiber rolls, a temporary debris basin (if deemed necessary), and other discharge control devices. The construction and condition of the BMPs are to be periodically inspected by the RWQCB during construction, and repairs would be made as required.
- Area drains within the construction area must be provided with inlet protection. Minimum standards are sandbag barriers, or two layers of sandbags with filter fabric over the grate, properly designed standpipes, or other measures as appropriate.
- Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas.
- All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps.
- Implement good housekeeping practices such as creating a waste collection area, putting lids on waste and material containers, and cleaning up spills immediately.
- The SWPPP shall include inspection forms for routine monitoring of the site during the construction phase.
- Additional required BMPs and erosion control measures shall be documented in the SWPPP.

- The SWPPP would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time.

The developer and/or construction contractor shall be responsible for performing and documenting the application of BMPs identified in the project-specific SWPPP. Regular inspections shall be performed on sediment control measures called for in the SWPPP. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City and the Regional Water Quality Control Board as appropriate.

HYD-3

Prior to issuance of a grading permit, a site-specific Standard Urban Stormwater Management Plan (SUSMP) shall be submitted to the City Engineer for review and approval. The SUSMP shall specifically identify the long-term site design, source control, and treatment control BMPs that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. At a minimum, the SUSMP shall identify and the site developer shall implement the following site design, source control, and treatment control BMPs as appropriate:

Site Design BMPs

- Minimize urban runoff by maximizing permeable areas and minimizing impermeable areas (recommended minimum 25 percent of site to be permeable).
- Incorporate landscaped buffer areas between sidewalks and streets.
- Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs wherever possible
- Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
- Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
- Construct streets, sidewalks, and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
- Direct runoff from impervious areas to treatment control BMPs such as landscaping/bioretenion areas.

Source Control BMPs

Source control BMPs are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural:

Non-Structural Source Control BMPs

- Education for property owners, tenants, occupants, and employees.
- Activity restrictions.
- Irrigation system and landscape maintenance to minimize water runoff.
- Common area litter control.
- Regular mechanical sweeping of private streets and parking lots.
- Regular drainage facility inspection and maintenance.

Structural Source Control BMPs

- MS4 stenciling and signage at any new storm down drains.
- Properly design trash storage areas and any outdoor material storage areas.

Treatment Control BMPs

Treatment control BMPs supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control BMP strategy for the project is to select Low Impact Development (LID) BMPs that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration BMPs are not appropriate, bioretention and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and use BMPs (i.e., storage pods) may be used as a treatment control BMP to store runoff for later non-potable uses.

HYD-4 Prior to issuance of a grading permit, the project engineer shall demonstrate that the project, including all water quality actions implemented under Mitigation Measures HYD-1 through HYD-3, shall not increase off-site runoff, create any unsafe drainage conditions, and identify if any on-site detention is required to protect the site under expected storm/runoff conditions. This measure shall be implemented to the satisfaction of the City Engineer.

NOI-1 **Mufflers.** During all project site excavation and grading, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards.

- NOI-2** **Stationary Equipment.** To the extent feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors to the west and southeast of the site.
- NOI-3** **Equipment Staging.** To the extent practical, the construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors to the west and southeast of the site during all project construction.
- NOI-4** **Construction Limits.** During all project site construction, the construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday. No construction shall be allowed on Sundays and public holidays.

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Appendix A

Project Information (On CD)

Appendix B

Air Quality and Greenhouse Gas Report (On CD)

Appendix C

Geotechnical Report (On CD)

Appendix D

Hydrological Report (On CD)

Appendix E

Trip Generation Memo (On CD)

Appendix F

Biological Resources Reports (On CD)

Appendix G

Noise Assessment (On CD)

Appendix H

Native American Tribal Consultation (On CD)