TERRACINA SPECIFIC PLAN PROJECT

Final Initial Study/Mitigated Negative Declaration

Prepared for
City of Lake Elsinore

November 2014

ESA

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ENVIRONMENTAL CHECKLIST
Initial Study - Recirculated

1. Project Title: Terracina Specific Plan Project
SCH #2013091083

2. Lead Agency Name and Address: City of Lake Elsinore
130 South Main Street
Lake Elsinore, CA 92530

3. Contact Person and Phone Number: Richard MacHott, Planning Manager
(951) 674-3124 Ext 209

4. Project Location:

The project is located in the northwestern portion of the City of Lake Elsinore, in western Riverside County. The project site contains 150.8 acres within the Alberhill District of the City and corresponds to the following eight Assessor's Parcel Numbers: 378-040-004 through 007, 378-040-012, 389-180-001 and 002, and 389-190-002.

A regional location map is shown as Figure 1. The northern project site boundary is located 0.8 miles southwest of Interstate 15. The southern project boundary is located adjacent to Lakeshore Drive, between Terra Cotta Road and Dryden Street. Hoff Avenue is located along the northern boundary. The project site is vacant and contains gently rolling hills and a knoll in the western portion near Lakeshore Drive.

5. Project Sponsor's Name and Address: Spectrum Communities
5753 G. Santa Ana Canyon Road, Suite 507
Anaheim Hills, CA 92807

6. General Plan Designation(s): Low Density Residential, Low-Medium Residential

7. Zoning Designation(s): Single-Family Residential (R-1)

8. Description of Project:

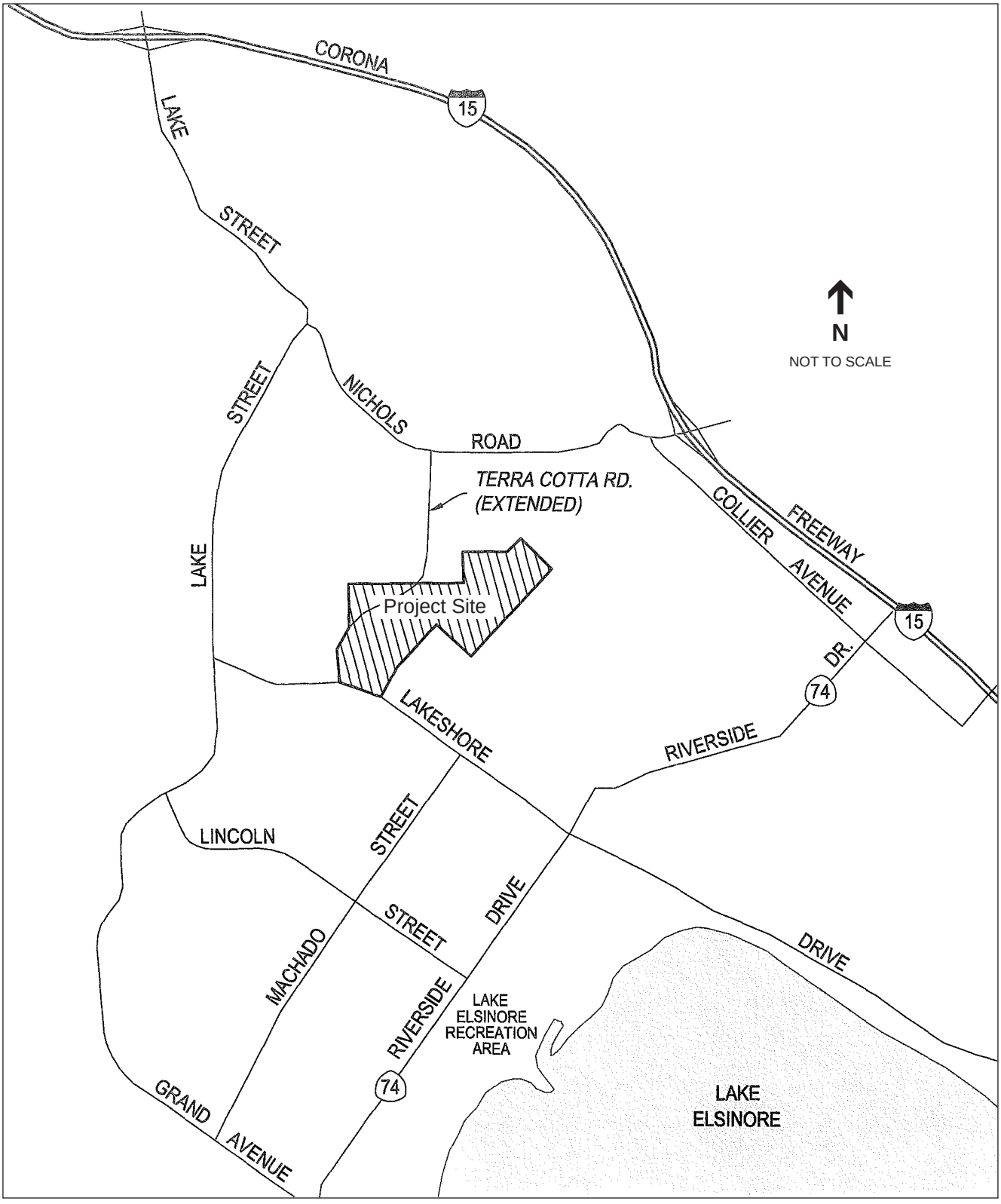
Background

Under the previous owner, Centex Homes, the project site received approval for Tentative Tract Map 32786 on October 11, 2005. The plan included 369 single-family lots with a minimum lot size of 6,000 square feet. Final improvement plans were created but were not issued permits and there has been no improvement to the site with the exception of a portion of a water line constructed by the Elsinore Valley Water District in the central portion of the site. The project site was subsequently purchased by Spectrum Communities in May 2012.

Use of the Final IS/MND and the CEQA Process

As required by Section 15073(a) of the *CEQA Guidelines*, the initial Draft IS/MND was available for a 30-day public review and comment period from September 27, 2013 through October 28, 2013. A subsequent Draft IS/MND was recirculated for public review from October 16, 2014 through November 17, 2014. Comments received on the initial Draft IS/MND can be found in Appendix I of the Final IS/MND. Comments on the recirculated Draft IS/MND and lead agency responses to these comments are included in the City Community Development Department's staff report on the project. Subsequent revisions and/or corrections to the recirculated Draft IS/MND resulting from these comments are shown in strikeout/underline text in this Final IS/MND. The Final IS/MND serves as the environmental document to support approval of the proposed project, either in whole or in part, if the project is approved. After completing the Final IS/MND, and before approving the project, the decisionmaking body of the lead agency must make the following considerations, as required by Section 15074(b) of the *CEQA Guidelines*:

> *"Prior to approving the projects, the decisionmaking body of the lead agency shall consider the proposed negative declaration or mitigated negative declaration together with any comments received during the public review process. The decisionmaking body shall adopt the proposed negative declaration or mitigated negative declaration only if it finds on the basis of the whole record before it (including the initial study and any comments received), that there is no substantial evidence that the project will have a significant effect on the environment and that the negative declaration or mitigated negative declaration reflects the lead agency's independent judgment and analysis."*



SOURCE: David Jeffers Consulting, Inc., 2012

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Figure 1
Regional Location

An Initial Study was circulated along with a Notice of Intent to adopt a Mitigated Negative Declaration on September 27, 2013 (SCH # 2013091083) for a 30-day review period. Six comment letters were received from state and local agencies, Native American tribes, and interested parties. These original comment letters are included in Appendix I of this Initial Study.

Proposed Project

The Terracina Specific Plan Project (hereafter referred to as project or proposed project) consists of a 150.8-acre residential development. A summary of acreages is provided as Table 1.

TABLE 1
LAND USE SUMMARY

Description	Acreage
Residential	76.5
Open Space	22.0
Roadways	22.5
Park	1.6
Graded Slopes and Basins	28.2
Total	**150.8**

SOURCE: Spectrum Communities, 2014.

A total of 468 single-family lots comprise the Tentative Tract Map (TTM 36557) as shown in Figure 2. Figure 3 shows the proposed financing map (TTM 36577). The Specific Plan for the project divides the project site into six residential planning areas, or villages (Figure 4). Each village would have a unique identity by varying architectural styles and lot sizes (Figures 5a through 5j). Village 1 would contain the largest lot and home product size, oriented to capitalize on views of the surrounding terrain, the Elsinore Mountains, or Lake Elsinore. This village is designated Low Density Residential with a maximum density of 2.5 dwelling units per acre (du/ac) and a maximum yield of 75 lots. The minimum lot size would be 6,000 square feet. Village 2 is designated Low Medium Density Residential with a maximum density of 4.5 du/ac and a maximum yield of 91 lots. The minimum lot size in Village 2 would be 5,500 square feet. Village 3 is similar in density to Village 2 with 4.5 du/ac; however, the minimum lot size would be 5,000 square feet. Village 3 would yield a maximum of 94 lots. Village 3 contains the main 1.6-acre (net) park for use by all residents of the development. Village 4 is located in the eastern portion of the project and is designated Low Medium Density Residential with a maximum density of 5.0 du/ac and a maximum yield of 90 lots. The minimum lot size would be 4,500 square feet. Village 5 is designated Low Medium Density Residential and includes a water quality/detention basin. The proposed density is 5.5 du/ac, for a maximum yield of 98 lots containing single-family detached homes. The minimum lot size would be 4,500 square feet. Village 6 is similar in density and lot size as Village 5 with a proposed density of 5.5 du/ac, for a maximum yield of 43 lots with single-family detached homes and a minimum lot size of 4,500 square feet. Table 2 is a summary of each village.

TABLE 2
RESIDENTIAL USE SUMMARY

Village	Acreage	Maximum Density Allowed (du/ac)	Proposed No. of Lots per Specific Plan	Minimum Lot Size (square feet)
1	29.9	2.5	72	6,000
2	20.4	4.5	84	5,500
3	20.9	4.5	91	5,000
4	18.0	5.0	89	4,500
5	17.8	5.5	94	4,500
6	7.8	5.5	38	4,500
		Total	**468**	

SOURCE: Spectrum Communities, 2014.

Outside of the village areas, the project site incorporates a natural biological area and open space. The biological area would be avoided. Open space areas if disturbed by grading would be revegetated or prepared as fuel modification areas.

Circulation Improvements. Circulation improvements include completion of improvements on the north side of Lakeshore Drive, and completion of improvements to Dryden Street and Stoddard Street to provide full-width access to the project site. For the Dolbeer Street, Hoff Avenue and Pierce Street rights-of-way, where there are no existing improvements, the project proposes half-width improvements. To facilitate circulation, Hoff Avenue will be extended westerly to Terra Cotta Road, a 90-foot right-of-way and Secondary Highway under the City's General Plan. Terra Cotta Road is partially improved from Lakeshore Drive to the northerly boundary of the project site. Full-width improvements to Terra Cotta Road would be constructed within the project site and an additional two lanes would be constructed offsite for approximately one-half mile to Nichols Road. Other interior streets would have 50-foot rights-of-way with 40-foot curb-to-curb roadway widths. All roadways would be dedicated to the City with the exception of the internal roadway in Village 6 which would remain private and be maintained by a homeowners association.

Drainage. The project would include storm drain system and convey a majority of runoff through a network of underground pipes which release into three separate drainage areas (an infiltration basin and two extended detention/water quality basins). Basins would be located in Villages 1, 5 and 6. An array of Low Impact Development Best Management Practices would be deployed based on feasibility specific to the project site. A preliminary Water Quality Management Plan with proposed treatment controls is included as Appendix B.

Public Utilities. Water and wastewater service would be provided by the Elsinore Valley Municipal Water District (EVMWD). EVMWD previously constructed a water line, fire hydrants and other appurtenance onsite; however, these do not match the currently proposed street design and will likely have to be relocated. There are existing 8-inch and 30- inch water lines along Lakeshore Drive, Terra Cotta Road, Dryden Street, Stoddard Street and Swan Avenue which

would be used for connections to water service. The site would have a looped water system to help meet domestic water pressure and fire-flow pressure requirements. For wastewater, a lift station would be located on site and would be maintained by EVMWD. Wastewater flows from the project site would be collected and would be conveyed to the existing 10-inch sewer line on Lakeshore Drive. Gas would be provided by Southern California Gas Company and electricity by Southern California Edison Company. There are existing gas and electric lines along Terra Cotta Road, Lakeshore Drive, Dryden Street, Stoddard Street and Arnold Avenue which would be used for connections to service.

Grading and Construction. Grading could begin as early as Spring 2015. The existing knoll would be largely maintained by designing a road around the sides to the top with grading on the top of the knoll. The dirt from this area would be used in other portions of the site. The site is proposed to be balanced with no import or export of fill needed. Following rough grading, drainage, utility and street improvements would begin, followed by home construction. The project would be phased with development of two to three villages at a time. The phasing sequence may be adjusted based on market conditions. According to this schedule, construction could be completed by Spring 2019. Construction of residences and other structures would adhere to the California Building Code, in effect at the time, as amended by Chapter 15 of the City Municipal Code.

Lead Agency Approvals. The following City approvals and permits are anticipated:

- Adoption of the Terracina Specific Plan
- Zoning change from R-1 (Single Family Residential) to Specific Plan
- Approval of Tentative Tract Map 36557
- Approval of Tentative Tract Map 36577 for financing purposes
- Lake Elsinore Mass Grading Permit
- Lake Elsinore Residential Design Review for Model Homes and Production Homes
- Lake Elsinore Precise Grading and Building Permits
- Lake Elsinore Encroachment Permits for Street Improvements (Sewer/Water/Storm Drain/Flood Control/C&G/Utilities/Streets)

9. Surrounding Land Uses and Setting:

Land uses surrounding the project area consist of the Pacific Clay mining property and scattered residences to the north, open space and residences to the east, Lakeshore Drive and Dryden Street followed by residences to the south, and Terra Cotta Road followed by residences to the west.

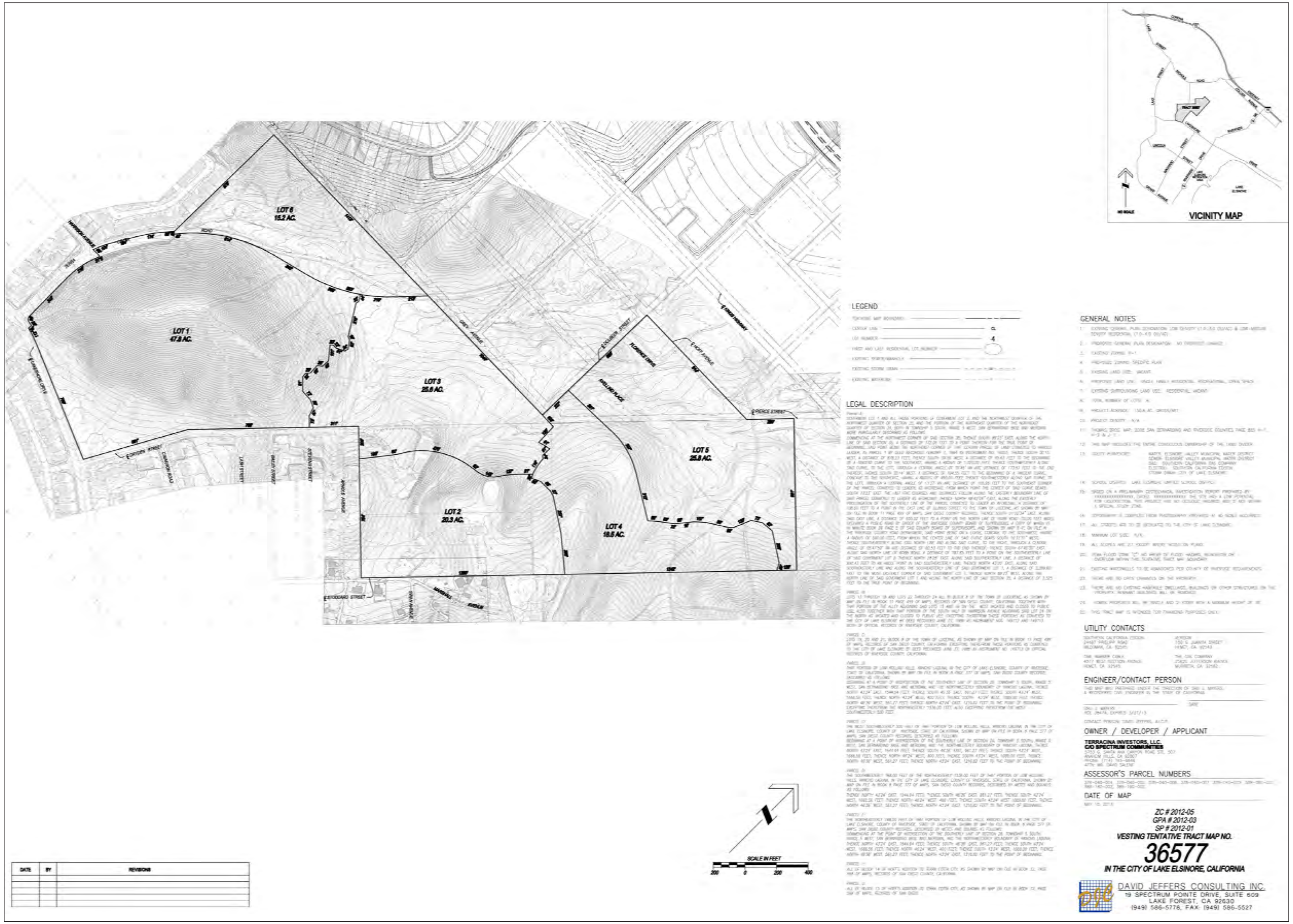
10. Other public agencies whose approval is required:

Implementation of the project may require the following discretionary approvals by other responsible and/or regulatory agencies:

- U.S. Army Corps of Engineers Section 404 Permit
- California Department of Fish and Wildlife Section 1602 Streambed Alteration Permit
- Santa Ana Regional Water Quality Control Board Section 401 Water Quality Certification
- State Water Resources Control Board Construction Storm Water Runoff permit and National Pollutant Discharge Elimination System Permit

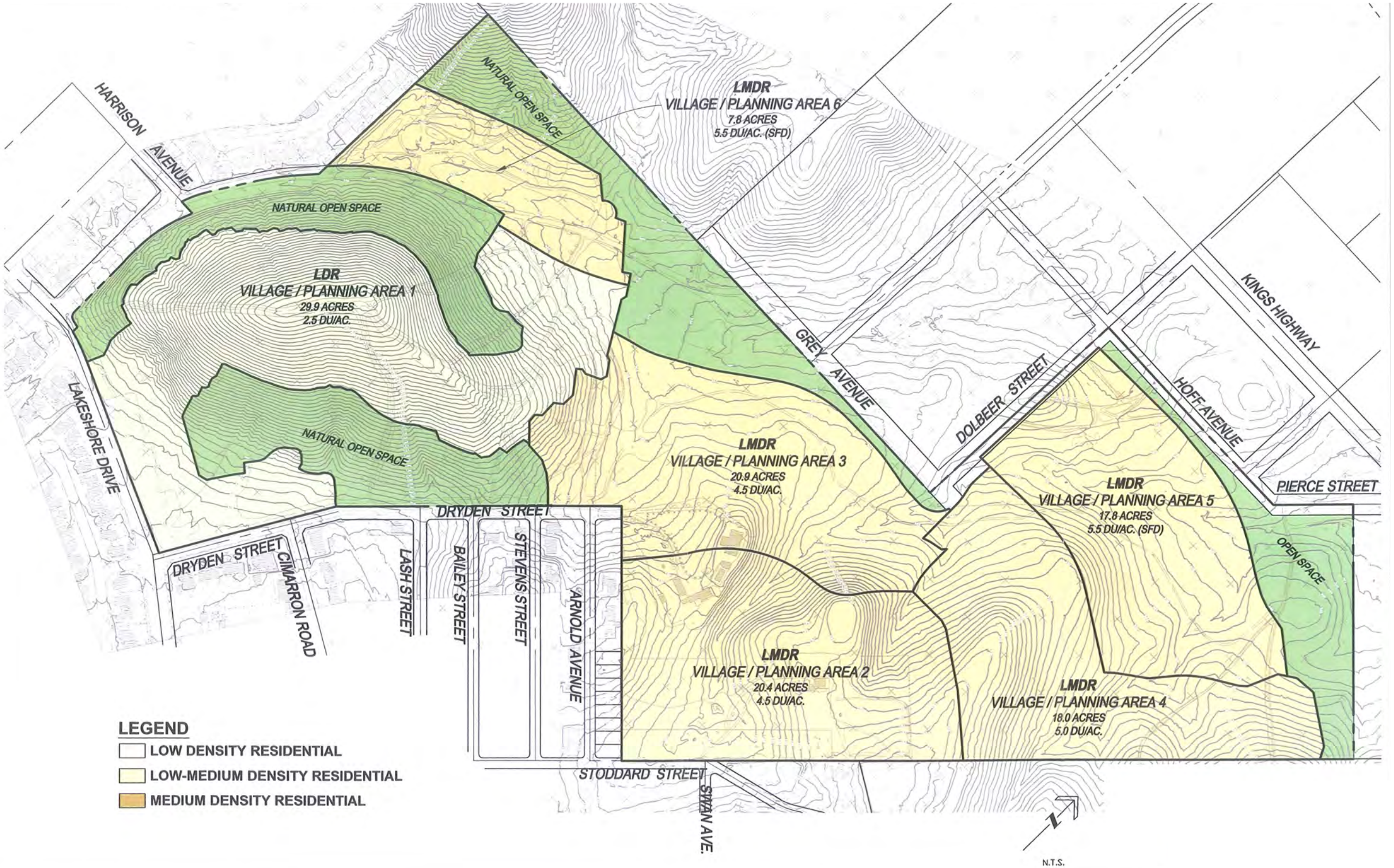
SOURCE: David Jeffers Consulting, Inc., 2014

Figure 2
Tentative Tract Map 36557



SOURCE: David Jeffers Consulting, Inc., 2013

Figure 3
Financing Map 36577



SOURCE: David Jeffers Consulting, Inc., 2014

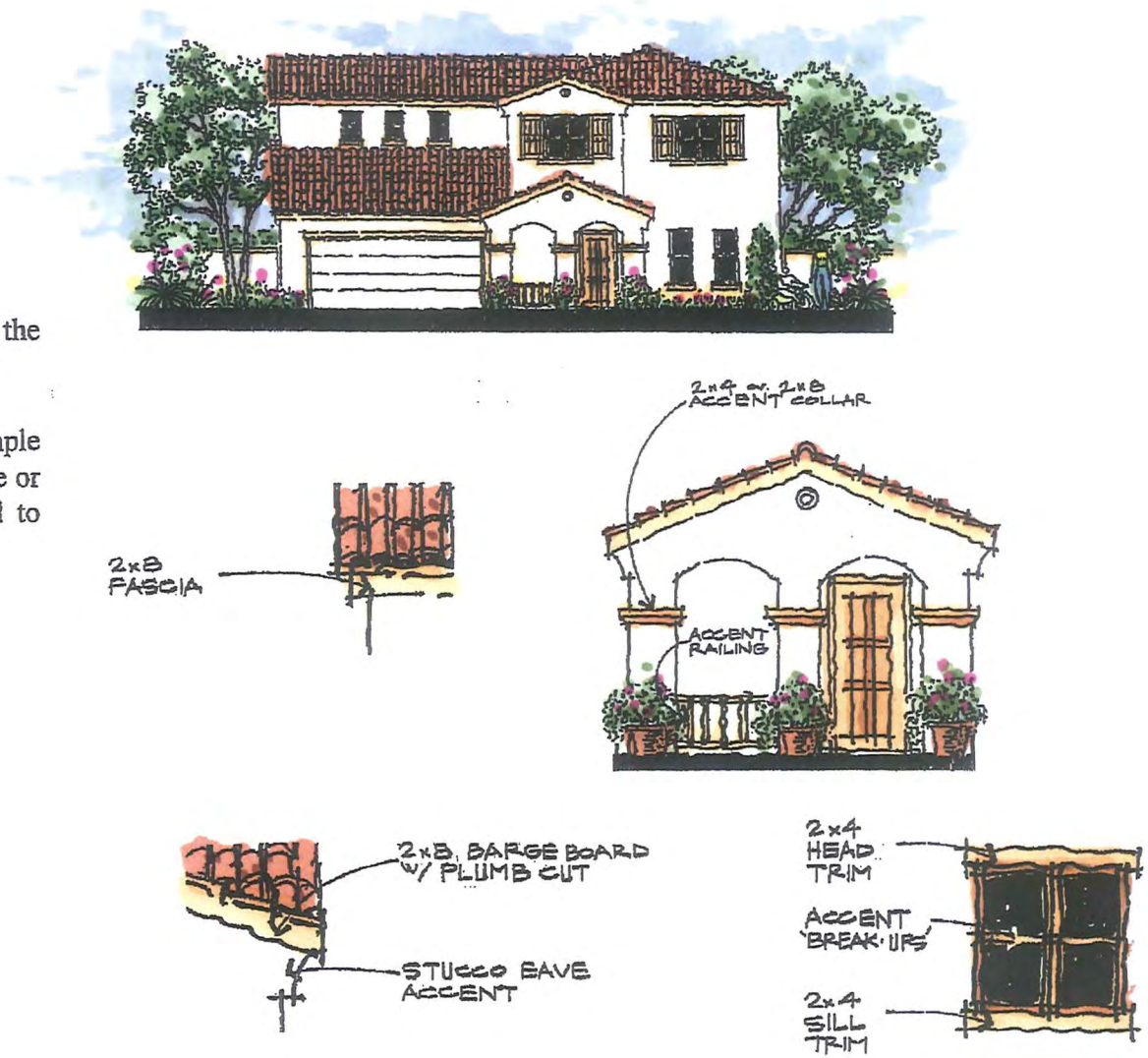
Figure 4
Proposed Land Uses and Villages

Architectural Style
Santa Barbara

Historical Characteristics

The Santa Barbara style is an adaptation of the original Spanish Colonial.

The style was popularized by the use of simple building forms. Roof framing features gable or hip conditions, along with shutters integral to the character.



SOURCE: Draft Terracina Specific Plan, January 2014

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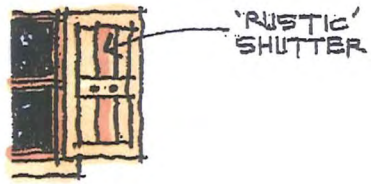
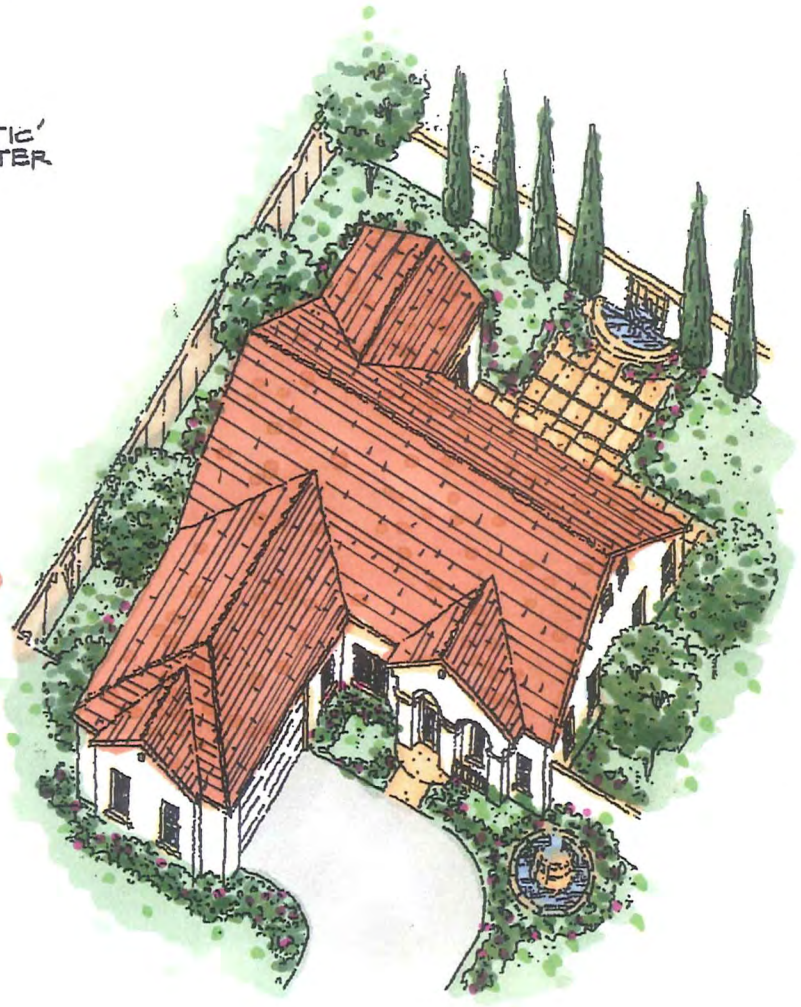
Figure 5a

Proposed Architectural Styles

Architectural Style

Santa Barbara





Design Elements

- Arched entry at architectural projection
- Recessed arched windows
- Window accent per style
- Wrought iron railing accent
- Stucco eave accent at gable end
- Accent tile at gable end

- 'S' concrete tile
- Roof pitch - 4:12
- 2 x 8 Fascia with 18" eave and 12" rake
- 2 x Wood trim
- Plumb - Cut rake Ends
- Paneled garage door per style
- Accent lighting

SOURCE: Draft Terracina Specific Plan, January 2014

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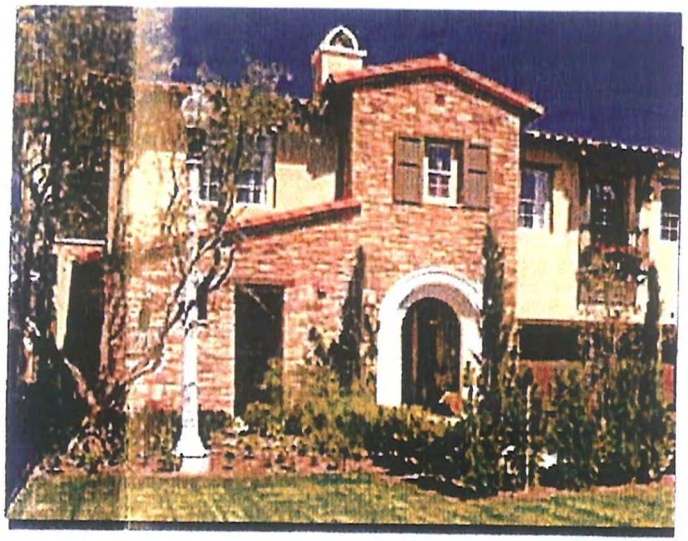
Figure 5b

Proposed Architectural Styles

Architectural Style
Tuscan



Design Elements

- *Shallow Pitched Tile Roof*
- *Earthy Colors*
- *Arched Windows and Doorways*
- *A Sence of Elegence*
- *Tall, Narrow Windows*

SOURCE: Draft Terracina Specific Plan, January 2014

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Figure 5c
Proposed Architectural Styles

Architectural Style

Tuscan

Design Elements

- *Cantilevered Balconies in Front*
- *Building Materials of Painted Brick, Stucco and/or Siding*
- *Window Shutters*
- *Wrought Iron Details*

SOURCE: Draft Terracina Specific Plan, January 2014

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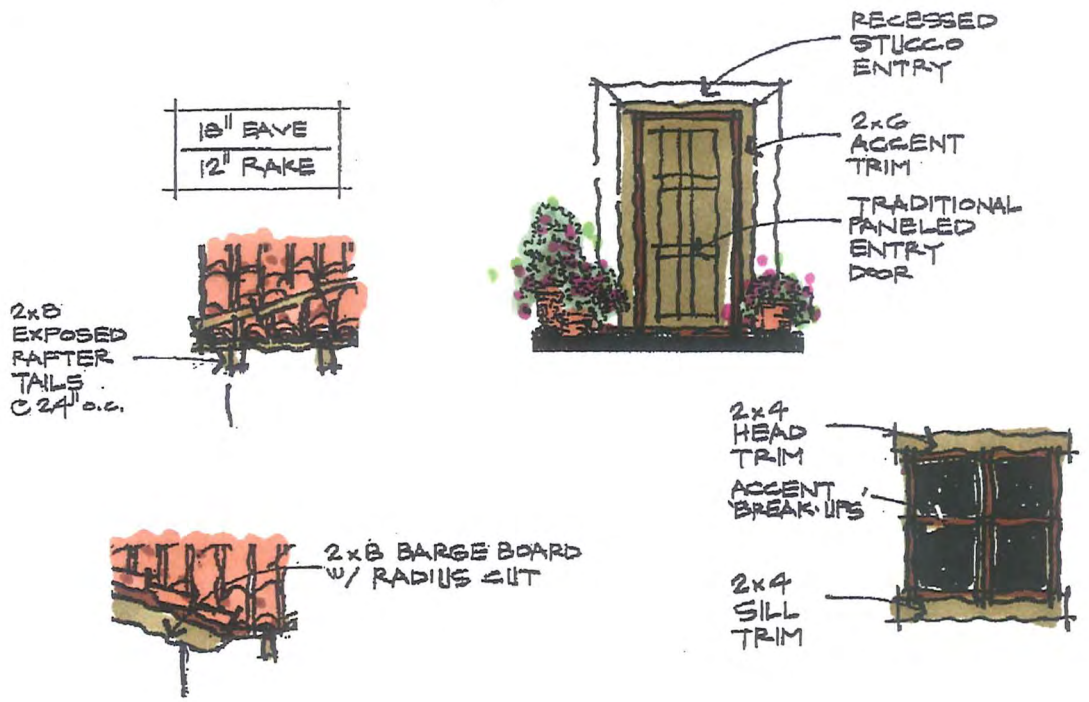
Figure 5d

Proposed Architectural Styles

Architectural Style
California Ranch

Historical Characteristics

The Ranch house was the primary focus of the cattle ranches developed by the early Californians. Over a period of time, the California Ranch was developed naturally from native materials. The houses were generally simple and straight forward while using barrel tiles, stucco walls and exposed rafter tails.



SOURCE: Draft Terracina Specific Plan, January 2014

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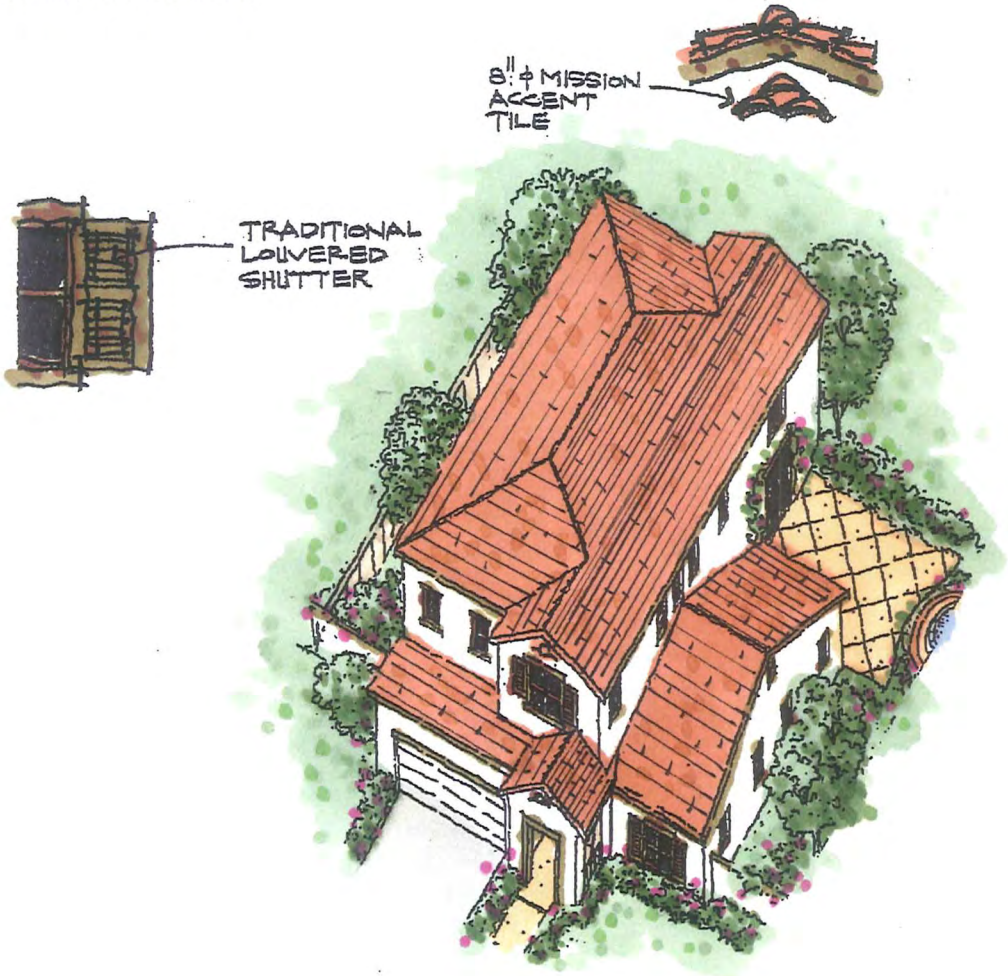
Figure 5e
Proposed Architectural Styles

Architectural Style
California Ranch



Design Elements

- Recessed entry architectural projection
- Window accent per style
- Traditional shutter accent
- 3 x 6 Wood exposed rafter tails
- Accent tile at gable end

- 'S' concrete tile
- Roof pitch - 4:12
- 2 x 8 Fascia with 18" eave and 12"rake
- Radius cut rafter tails
- 2 x Wood trim
- Paneled garage door per style accent lighting

SOURCE: Draft Terracina Specific Plan, January 2014

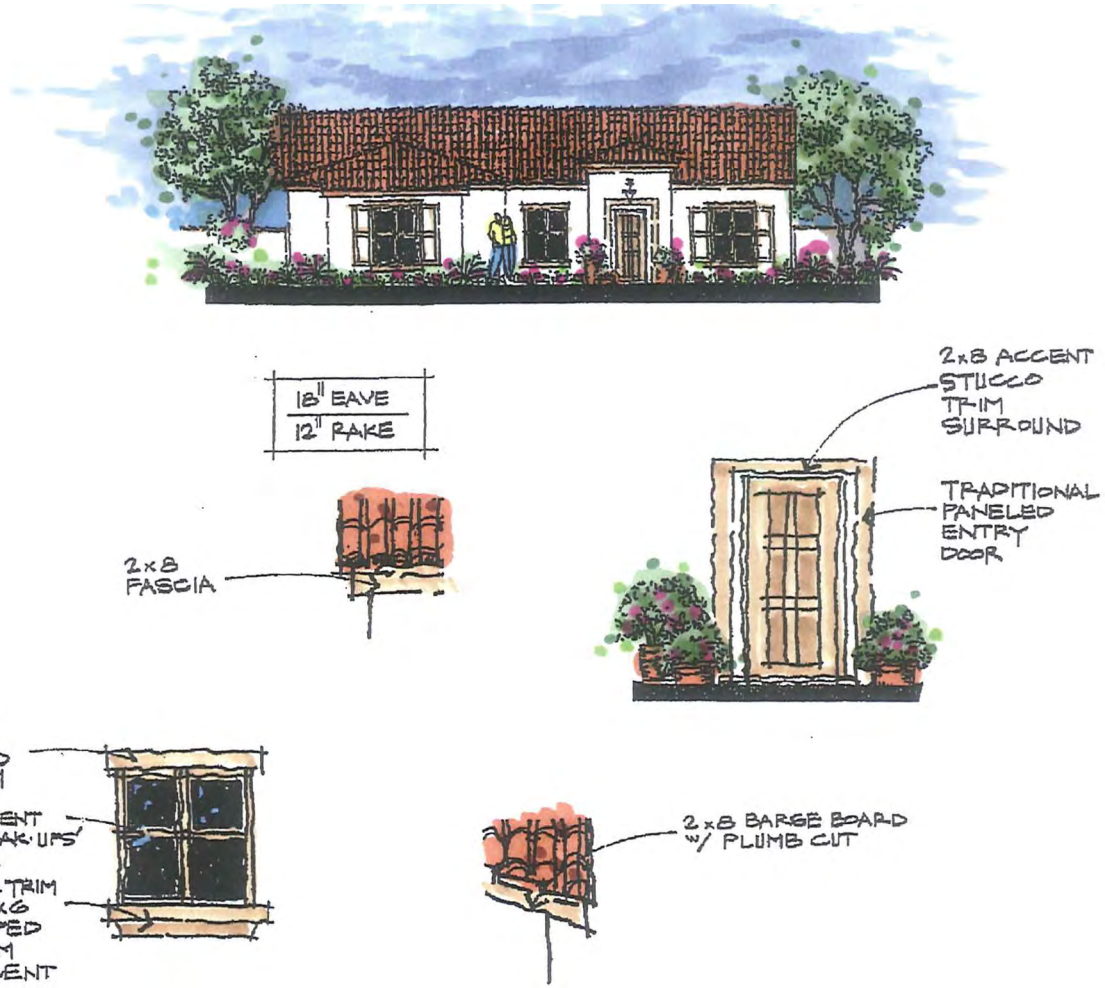
Figure 5f
Proposed Architectural Styles

Architectural Style
Spanish Bungalow

Historical Characteristics

Spanish Bungalow is an adaptation of Spanish Eclectic. The style attained widespread popularity after its use in the Panama-California Exposition of 1915.

Architectural distinction was established through the use of lower profile tile roofs, stucco walls, simplicity and contrast of materials and textures.



SOURCE: Draft Terracina Specific Plan, January 2014

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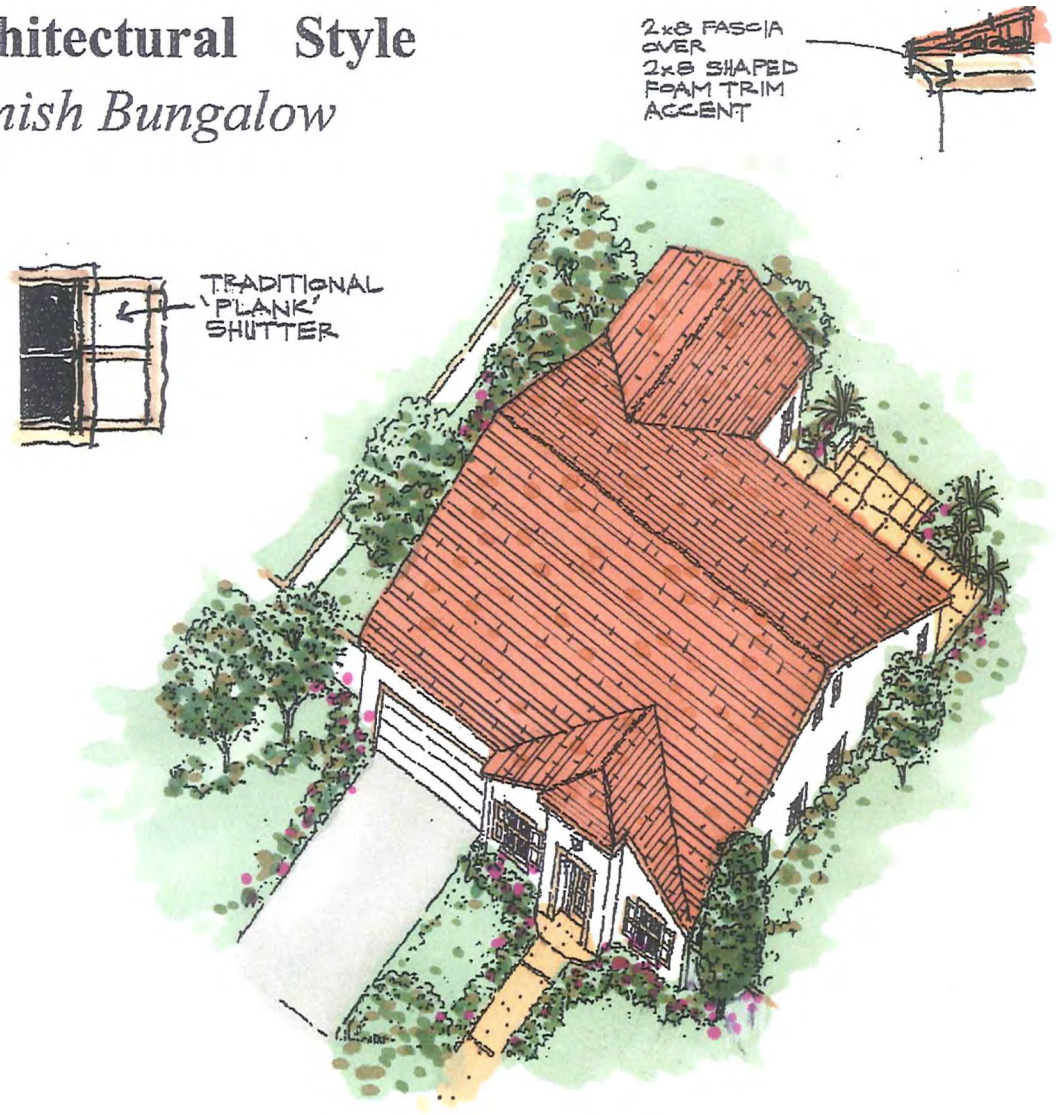
Figure 5g
Proposed Architectural Styles

Architectural Style

Spanish Bungalow



Design Elements

- Theme window at architectural projection
- Recessed entry accent
- Window accent per style
- Traditional 'plank' shutter accent
- Accent tile at gable end

- 'S' low profile - concrete tile
  Roof pitch - 4:12
  2 x 8 Fascia with 18" eave and 12" rake
  2 x Stucco trim
  Plumb - Cut rake Ends
  Paneled garage door per style
  Accent lighting

SOURCE: Draft Terracina Specific Plan, January 2014

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Figure 5h

Proposed Architectural Styles

Architectural Style
Craftsman

Historical Characteristics

The Craftsman style features handicrafts with simple forms and natural materials. Many features of the Craftsman style are: Low pitched roofs, wood, stone or stucco siding.

SOURCE: Draft Terracina Specific Plan, January 2014

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Figure 5i
Proposed Architectural Styles

Architectural Style

Craftsman

Additional examples featuring:

- Numerous windows
- Stone porch supports
- Exposed roof Rafters

SOURCE: Draft Terracina Specific Plan, January 2014

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Figure 5j

Proposed Architectural Styles

Environmental Factors Potentially Affected

The proposed project could potentially affect the environmental factor(s) checked below. With mitigation, effects to these resources would be reduced to a less-than-significant level. The following pages present a more detailed checklist and discussion of each environmental factor.

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

DETERMINATION:

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Signature

November 20, 2014
Date

Richard J. MacHott
Printed Name

For

Environmental Checklist

Aesthetics

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

Discussion

a) Scenic resources in the City of Lake Elsinore and surrounding area include the lake, the Santa Ana Mountains, Cleveland National Forest, other natural landscapes and buildings of historical/cultural significance. The lake is located south of the project site and is not currently visible from private residences to the east and west of the project site or roadways adjacent to the project site, thus the project would not alter existing views of the lake. The Santa Ana Mountains and Cleveland National Forest are located south, southwest and west of the project site and the project site would not affect off-site views of these areas. For these reasons impacts were determined to be less than significant.

b) There are no officially designated state scenic highways in the vicinity of the project site (Caltrans, 2013) and therefore there would be no impact to scenic resources visible from a state scenic highway.

c) The proposed project would alter the visual character of the project site which is currently undeveloped. The development of a residential community on the project site would be visually consistent with existing residential development to the east, south and west. The project proposes to preserve the visually appealing natural open space of the prominent knoll feature in the southern portion of the project site. The Specific Plan includes architectural and landscape guidelines as well as the incorporation of open space to enhance the visual character of the development. Open space, graded slopes and parks and recreation areas comprise approximately 52 acres or 34 percent of the project. For these reasons impacts were determined to be less than significant.

d) The proposed project would be a new source of nighttime lighting. The project would provide two different types of lighting. The streets would be illuminated by street lights in accordance with the City of Lake Elsinore requirements for street lighting. The second type of lighting will be individual lighting for residential structures for front porch and

side garage entrances. Both types of lighting are consistent with lighting in residential neighborhoods. Parking lighting in the multi-family residential portion of the project must be located and designed to avoid light shining onto adjacent properties or into the sky (Section 17.148.110). With conformance to the City's lighting standards the impact on nighttime lighting would be less than significant.

Agricultural and Forest Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
2.	**AGRICULTURAL AND FOREST RESOURCES —**				
	Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a-e) The project site is not utilized for agricultural cultivation, is not under a Williamson Contract (California Department of Conservation, 2012a) and is not designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance (California Department of Conservation, 2012b). The project site does not contain forested land. The project site has been designated for single-family residential development under the City of Lake Elsinore General Plan (2011). Additionally, land adjacent to the project site does not contain agricultural or forest resources. As the project site does not contain agricultural or forest resources and would not result in the conversion of off-site agricultural or forest resources, there would be no impact for this issue area.

Air Quality

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

Discussion

An Air Quality and Global Climate Change Impact Analysis (Kunzman Associates, Inc., 2013) was prepared to analyze the potential impacts to air quality resulting from the proposed project and was used in the preparation of this section.

The project site is located within the western portion of Riverside County, which is part of the South Coast Air Basin (Basin) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The project site is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

Regulatory Setting

Federal

United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. NAAQS pollutants are shown below in Table 3.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. As indicated below in Table 4, the Basin has been designated by the EPA as a non-attainment area for ozone (O3) and suspended particulates (PM10 and PM2.5).

TABLE 3
NATIONAL AND STATE AIR QUALITY STANDARDS

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects
Ozone	1 hour	0.09 ppm	---	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.
	8 hours	0.07 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm	100 ppb	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.
	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm	75 ppb	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.
	3 hours	---	0.50 ppm	
	24 hours	0.04 ppm	0.14 ppm	
	Annual Arithmetic Mean	---	0.03 ppm	
Respirable Particulate Matter (PM10)	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.
	Annual Arithmetic Mean	20 $\mu g/m^3$	---	
Fine Particulate Matter (PM2.5)	24 hours	---	35 $\mu g/m^3$	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.
	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	
Lead (Pb)	30 Day Average	1.5 $\mu g/m^3$	---	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases).
	Calendar Quarter	---	1.5 $\mu g/m^3$	
	Rolling 3-Month Average	---	0.15 $\mu g/m^3$	
Sulfates (SO_4)	24 hour	25 $\mu g/m^3$	No National Standard	Decrease in ventilatory functions; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, and discourages tourism.

SOURCE: ARB, 2012

State

California Air Resources Board

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. The California Ambient Air Quality Standards (CAAQS) for criteria pollutants are shown in Table 3 and the state attainment status for the Riverside County portion of the South Coast Air Basin is shown in Table 4. The South Coast Air Basin has been designated by CARB as a nonattainment area for ozone, PM10 and PM2.5.

TABLE 4
ATTAINMENT STATUS OF SOUTH COAST AIR BASIN (RIVERSIDE COUNTY PORTION)

	Designation/Classification	
Pollutant	**Federal Standards**	**State Standards**
Ozone – one hour	No Federal Standard	Nonattainment/Extreme
Ozone – eight hour	Nonattainment/Extreme	Nonattainment
PM10	Nonattainment/Serious	Nonattainment
PM2.5	Nonattainment	Nonattainment
CO	Attainment/Maintenance	Maintenance
Nitrogen Dioxide	Attainment/Maintenance	Attainment
Sulfur Dioxide	Unclassified/Attainment	Attainment
Lead	Unclassified/Attainment	Attainment

SOURCE: ARB, 2013

Local

SCAQMD

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. It has prepared a sequence of Air Quality Management Plans (AQMPs). The 2007 AQMP demonstrated attainment with the 1997 8-hour ozone (80 ppb) standard by 2023, through implementation of future improvements in control techniques and technologies. These "black box" emissions reductions represent 65 percent of the remaining NOx emission reductions by 2023 in order to show attainment with the 1997 8-hour ozone NAAQS. Given the magnitude of these needed emissions reductions, additional NOx control measures have been provided in the AQMP even though the primary purpose of the AQMP is to show compliance with 24-hour PM2.5 emissions standards.

The 2012 AQMP updates and revises the previous 2007 AQMP. A revised draft of the 2012 AQMP was released on September 2012, and was adopted by the SCAQMD Board on December 7, 2012. The 2012 AQMP is now awaiting approval from CARB and the U.S. EPA. The 2012 AQMP is being prepared in order to meet the federal Clean Air Act requirement that all 24-hour PM2.5 non-attainment areas prepare a SIP, which was required to be submitted to the U.S. EPA by December 14, 2012 and demonstrate attainment with the 24-hour PM2.5 standard by 2014. The 2012 AQMP demonstrates attainment of the federal 24-hour PM2.5 standard by 2014 in the Basin through adoption of all feasible measures, and therefore, no extension of the attainment date is needed.

Impact Analysis

a) The AQMP is the regional air quality plan that applies to the proposed project. A proposed project should be considered to be consistent with the AQMP if it furthers one

or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

Criterion 1 - Increase in the Frequency or Severity of Violations

With implementation of Mitigation Measures AIR-1, AIR-2 and AIR-3, discussed below, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. The Air Quality Impact Analysis also found that long-term operations impacts will not result in significant impacts based on the SCAQMD regional, local and toxic air contaminant thresholds of significance. Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP

In preparation of the AQMP, SCAQMD and the Southern California Association of Governments use land use designations contained in General Plan documents to forecast, inventory, and allocate regional emissions from land use and development-related sources. For purposes of analyzing consistency with the AQMP, if a proposed project would have a development density that is substantially greater than what was anticipated in the General Plan, then the proposed project would conflict with the AQMP. On the other hand, if a project's density is consistent with the General Plan, its emissions would be consistent with the assumptions in the AQMP, and the project would not conflict with SCAQMD's attainment plans.

The project site is currently zoned R-1 and designated as both Low-Medium Residential and Low Density Residential in the General Plan. The Low Density Residential designation comprises 27 acres and has a maximum allowed density of 3.0 dwelling units per acre. The Low-Medium Density Residential designation comprises 124 acres and has a maximum allowed density of 6.0 dwelling units per acre. Thus, the existing general plan would allow for up to 825 dwelling units. As the project proposes 468 units, it is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Conclusion

Based on the above criteria, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur.

b,d) The following discusses potential impacts from air pollutants, during both the construction and operational phases of the project, and includes a discussion of potential impacts to the nearest sensitive receptors.

Criteria Pollutants Analysis

Construction

Construction emissions estimates were generated using CalEEMOD Version 2011.1.1. Construction-related criteria pollutant emissions by phase are shown in Table 5. NOx would exceed the SCAQMD constructions thresholds during grading activities. Construction emissions were modeled assuming that at least half of all diesel equipment during the grading phase would meet Tier 3 or higher federal emissions standards. As shown in Table 6, this measure would result in criteria pollutant emissions below the SCAQMD threshold. Mitigation AIR-1 is provided which requires that diesel-powered construction equipment meeting Tier 3 emission requirements be used to the maximum extent feasible. With mitigation, impacts would be less than significant.

TABLE 5
UNMITIGATED CONSTRUCTION-RELATED REGIONAL CRITERIA POLLUTANT EMISSIONS

	Estimated Maximum Daily Emissions (lbs/day)					
Construction Activities	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	9.49	75.43	44.37	0.07	21.96	13.58
Grading	16.21	**132.98**	70.71	0.15	18.51	9.14
Trenching	2.90	20.59	17.06	0.03	1.44	1.29
Building Construction	5.74	37.45	37.59	0.07	5.19	2.25
Paving	5.53	28.28	21.16	0.03	2.55	2.36
Architectural Coatings	71.06	2.56	3.97	0.00	0.74	0.14
Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Significant Impact?	No	**Yes**	No	No	No	No

SOURCE: Kunzman Associates, Inc, 2013 (Appendix A).

TABLE 6
MITIGATED CONSTRUCTION-RELATED REGIONAL CRITERIA POLLUTANT EMISSIONS

	Estimated Maximum Daily Emissions (lbs/day)					
Construction Activities	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	9.49	75.43	44.37	0.07	21.96	13.58
Grading	12.79	85.72	80.48	0.15	17.71	8.34
Trenching	2.90	20.59	17.06	0.03	1.44	1.29
Building Construction	5.74	37.45	37.59	0.07	5.19	2.25
Paving	5.53	28.28	21.16	0.03	2.55	2.36
Architectural Coatings	71.06	2.56	3.97	0.00	0.74	0.14
Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Significant Impact?	No	No	No	No	No	No

SOURCE: Kunzman Associates, Inc, 2013 (Appendix A).

Mitigation Measure AIR-1: All diesel powered construction equipment in use shall require control equipment that meets, at a minimum Tier 3 emission requirements. In the event Tier 3 equipment is not available, diesel powered construction equipment in use shall require emissions control equipment with minimum of Tier 2 diesel standards.

Operation

The worst-case summer or winter VOC, NOx, CO, SO2, PM10, and PM2.5 emissions created from the proposed project's long-term operations have been calculated and are summarized below in Table 7. Table 7 shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

TABLE 7
OPERATIONAL REGIONAL CRITERIA POLLUTANT EMISSIONS

	Estimated Maximum Daily Emissions (lbs/day)					
Activity	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	20.64	0.46	39.67	0.00	0.84	0.83
Energy Usage	0.56	4.79	2.04	0.03	0.39	0.39
Mobile Sources	18.04	18.66	210.35	0.38	43.28	2.84
Total Emissions	**39.24**	**23.91**	**252.06**	**0.41**	**44.51**	**4.06**
Regional Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Significant Impact?	No	No	No	No	No	No

SOURCE: Kunzman Associates, Inc, 2013 (Appendix A).

Local Air Quality Impacts

Construction

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold (LST) Look-up Tables and the LST Methodology, prepared by SCAQMD, revised July 2008. The LST Methodology found the primary emissions of concern are NOx, CO, PM10, and PM2.5. The on -site emissions were calculated from the CalEEMod model for the different construction phases and have been detailed above for the construction-related regional air quality impacts analysis. The nearest off-site homes are located as near as 25 feet away from the project site.

The screening data provided in Table 8 shows that NOx and CO emissions would not exceed the allowable limits for any phase of construction and that for both the site preparation and grading phases PM10 and PM2.5 emissions may exceed the local emissions thresholds at the nearest sensitive receptors. Thus, further analysis was required for PM10 and PM2.5

TABLE 8
SCREENING OF LOCAL CONSTRUCTION EMISSIONS AT NEAREST SENSITIVE RECEPTOR

	On-Site Pollutant Emissions (lbs/day)			
Phase	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	74.88	43.05	**21.68**	**13.54**
Grading	132.39	68.96	**18.13**	**9.10**
Trenching	20.08	16.23	1.26	1.26
Building Construction	29.16	22.98	1.80	1.80
Paving	28.21	20.38	2.35	2.35
Architectural Coating	2.37	1.88	0.20	0.20
SCAQMD Threshold for 25 meters (82 feet) or less	*371*	*1,965*	*13*	*8*
Significant Impact?	No	No	**Yes**	**Yes**

SOURCE: Kunzman Associates, Inc, 2013 (Appendix A).

The Air Quality Analysis calculated worst-case PM10 and PM2.5 construction emissions at seven analyzed discrete sensitive receptors, which were chosen as the most likely off-site residences to be impacted from grading emissions and at the point of maximum impact. The Air Quality Analysis shows that PM10 from the site preparation and grading phases would exceed the local emissions thresholds at Receptor 3, which is located on the south side of the project site (Appendix A). Therefore, significant local PM10 concentrations would occur during site preparation and grading activities for the proposed project without mitigation.

According to the project applicant, grading activities would require several days where the daily earth-moving volume would exceed 5,000 cubic yards. Therefore, the proposed project's grading activities would be considered a Large Operation as defined in SCAQMD's Rule 403 and subject to the Rule's requirements. The AERMOD Model was re-run using quantifiable control measures including watering all disturbed areas three times per day and limiting the speed on unpaved roads to 15 miles per hour. With mitigation, local PM10 and PM2.5 emissions at the nearest residences from grading activities would be reduced to below the 10.4 μg per meter^3 threshold of significance. In addition to compliance with Rule 403, Mitigation Measure AIR-2 includes additional measures to further reduce construction emissions. With the implementation of these measures local construction emissions would be reduced to a less than significant level.

Mitigation Measure AIR-2: The following measures shall be required during construction:

i. The project applicant shall require that the site preparation and grading contractors implement the fugitive dust control actions provided in SCAQMD's Rule 403 for "Large Operations." If a more restrictive action is included below as project mitigation then that measure may be used in place of the applicable Rule 403 measure. A list of the Large Operations control actions from Rule 403 are provided in Appendix A of this Initial Study.

ii. When materials are transported off-site, all material shall be covered. As necessary, it may be effectively wetted to limited dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained to the extent feasible. If warranted by site or weather conditions, material shall be effectively wetted to limit dust emissions.

iii. The developer shall require and ensure that the contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.

iv. The developer shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond to any dust complaints and attempt corrective action within 24 hours.

v. The developer shall require and ensure that the contractor or builder shall formulate a high wind response plan for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

vi. The developer shall use its best efforts to require and ensure that the contractor or builder shall restrict truck operation to "clean" trucks, such as a 2007 or newer model year or 2010 compliant vehicles.

vii. The developer shall use its best efforts to utilize CARB certified equipment for construction activities. Developer shall inform all contractors and subcontractors that use of CARB certified equipment for all construction

activities is required where feasible and possible.

viii. The developer shall require and ensure that the contractor or builder shall suspend use of all construction equipment operations during first stage smog alerts.

Operations

The local air quality impacts from the operation of the proposed project would occur from emissions generated on-site. Sources of on-site operational emissions include architectural coatings off-gassing, landscaping equipment emissions, natural gas appliance emissions and on-site vehicular emissions. Because of the residential nature of the proposed project, the majority of the proposed project's operational emissions are from vehicles traveling on roadways away from the project site. These emissions are then spread over a vast area traversed by various mobile sources and do not result in localized air quality impacts in proximity to the project site. As such, localized operational modeling for project operations are not prepared for residential developments. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions.

Carbon Monoxide. CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and federal CO standards.

To determine if the proposed project could cause emission levels in excess of the CO standards, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" typically occur at high traffic volume intersections with a Level of Service E or worse.

The Traffic Impact Analysis found that with proposed road improvements, the proposed project would not decrease the Level of Service at any analyzed intersection and no analyzed intersection would operate at a Level of Service E or worse for; existing plus project conditions or cumulative plus project conditions. Therefore no CO "hot spot" modeling was warranted and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Toxic Air Contaminant Impacts

Construction

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively limited number of heavy-

duty construction equipment and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

Operations

Particulate matter from diesel exhaust is the predominate TAC in urban areas and based on a statewide average in 2000 was estimated to represent about two-thirds of cancer risk from TACs. Due to the nominal number of diesel truck trips generated by the proposed residential project, a less-than-significant toxic air contaminant impact would occur during the on-going operations of the proposed project. While this impact would be less-than-significant, Mitigation Measure AIR-3 is included to further reduce potential emissions.

> **Mitigation Measure AIR-3**: Electrical outlets shall be installed on the exterior walls of all residential buildings to promote the use of electric landscape maintenance equipment.

c) Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature.

The project area is out of attainment for both ozone and PM10. Construction and operation of cumulative projects would further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the regional air quality will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than significant levels are not significant and do not add to the overall cumulative impact. As the project would result in less than significant levels with mitigation as described for Items 3b and d, this project would also have a less-than-significant cumulative impact.

e) Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement and diesel exhaust emissions. The objectionable odors that may be produced during the construction process are short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor-producing materials. Due to the short-term nature and limited amounts of odor producing materials being utilized, odors during construction would have a less-than-significant impact.

According to the SCAQMD, *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. As a residential development, the proposed project does not include any uses identified by the SCAQMD as being associated with odors. Thus, the proposed project is not expected to result in objectionable odors for future residents or for the neighboring uses.

Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
4.	**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 U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

Discussion

This discussion is informed by a Biological Technical Report prepared by Glenn Lukos in August 2013 for the project (Appendix F of this Initial Study). Site specific surveys of the project site were conducted on March 14, 20, April 2, 24, May 6, 21, June 3, 7, 13, 24, and July 9, 19 2013. Also, a Determination of Biologically Equivalent or Superior Preservation (DBESP) Analysis was prepared on July 25, 2014 by Glenn Lukos for impacts to riparian/riverine areas.

This impact analysis is also considered in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) which was adopted by the City in 2004. The MSHCP is a comprehensive, multi-jurisdictional effort that focuses on conservation of 146 species and their associated habitats within western Riverside County. The MSHCP serves as a Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act of 1973, as well as a Natural Communities Conservation Plan (NCCP) under the NCCP Act of 2001. The MSHCP is used to allow the participating jurisdictions (i.e., the County of Riverside, City of Lake Elsinore, and the other fifteen participating cities) to authorize "take" of plants and wildlife species identified within the plan area for private projects and public works projects within the MSHCP areas. Under the MSHCP, the wildlife agencies will grant take authorization for otherwise lawful actions in exchange for the assembly and management of MSHCP Conservation Areas. Under the MSHCP and its permits, the City reviews proposed land uses in the "criteria area" to determine if they are consistent with the MSHCP's conservation goals and if the uses will contribute to assembling the reserves. There are MSHCP survey, habitat evaluation, and mitigation fee requirements that apply to individual projects.

a,b) **Impacts to Special Status Plant Species**

One special-status plant species (California Native Plant Society [CNPS] Rank 4.2) was detected on-site during the focused plant surveys: paniculate tarplant (*Deinandra paniculata*). No other special status plants were detected during focused surveys and no other special status plants are expected to occur on site due to a lack of suitable habitat and/or the level of disturbance. The project would result in impacts to scattered amounts of paniculate tarplant throughout ruderal and non-native grassland areas in the south and southeast portions of the project site. Due to the low sensitivity of this species, and the broad representation in the region, the impacts to the species would be less than significant.

A previous study of the project site conducted in 2006 found one special-status plant species, Palmer's grapplinghook (*Harpagonella palmeri*; CNPS Rank 4.2). The location of the Palmer's grapplinghook was not detailed in the previous report; however, focused surveys targeting areas containing potentially suitable habitat for this species yielded negative results. Regardless, impacts to any undetected Palmer's grapplinghook would not result in an adverse effect on the species population and would be reduced to a less-than-significant level through coverage under the MSHCP.

Impacts to Special Status Wildlife Species

Five special status animals were observed within the project site, including one federal listed and state species of special concern, the coastal California gnatcatcher (*Polioptila californica californica*), two state designated special status species, the Cooper's hawk (*Accipiter cooperi,* WL), and yellow warbler (*Setophaga petechia,* SSC), one state designated species of special concern, the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*, SSC), and one unlisted but locally rare reptile species , the coastal whiptail (*Aspidoscelis tigris stejnegeri*). One special-status animal, the golden eagle

(*Aquila chrysaetos*, CFP), was observed off-site, just outside the project's northern boundary.

In addition to those species observed on-site, the project site contains suitable habitat with the potential to support other special-status animals, including Bell's sage sparrow (*Amphispiza belli belli*), burrowing owl *(Athene cunicularia),* Dulzura pocket mouse *(Chaetodipus califronicus femoralis),* ferruginous hawk *(Buteo regalis),* least Bell's vireo *(Vireo bellii pusillus*), loggerhead shrike *(Lanius ludovicianus*), red-diamond rattlesnake *(Crotalus ruber ruber),* orangethroat whiptail *(Aspidoscelis hyperythra),* Quino checkerspot butterfly *(Euphydryas editha quino),* and southern California rufous-crowned sparrow *(Aimophila ruficeps canescens).* The burrowing owl and vireo were determined to be absent from the project site based on negative results of the focused surveys. Areas meeting the MSHCP definition of vernal pools were not detected during surveys; therefore, the project site does not contain suitable habitat for the federally endangered Riverside fairy shrimp (*Streptocephalus woottoni*) or other special status invertebrates associated with vernal pools.

The project would result in the loss of habitat occupied by the coastal California gnatcatcher, which was documented in the southwestern portion of the project site during biological surveys conducted in 2006, and which was incidentally detected during the 2013 biological surveys. The gnatcatcher is designated as a Covered Species Adequately Conserved under the MSHCP without additional conservation requirements. Therefore, with the coverage afforded by the MSHCP, impacts to the gnatcatcher would be less than significant.

Impacts to other special status-species either occurring or having the potential to occur onsite are adequately conserved under the MSHCP implementation structure and reserve design, with the exception of the rosy boa and burrowing owl. Rosy boa has low potential to occur on-site due to the low quality of the marginal habitat present on-site and thus impacts to this species are anticipated to be less than significant.

Currently, the site does not support any breeding owls, and as such the project would not currently be subject to MSHCP requirements for avoidance and/or owl relocation. However, since the project site does contain habitat that could potentially support burrowing owls in the future, Mitigation Measure BIO-1 is applicable pursuant to the MSHCP. This measure requires pre-construction surveys which would reduce potential impacts to a less-than-significant level.

> **Mitigation Measure BIO-1:** The project applicant shall ensure that a preconstruction presence/absence survey for burrowing owl shall be conducted where suitable habitat is present. The survey shall be conducted within 30 days prior to site disturbance. If burrowing owl are determined to be present, passive (i.e., use of one-way doors and collapse of burrows) relocation following accepted protocols will be utilized to ensure impacts to owls are minimized or avoided. Existing burrows shall be destroyed once they are vacated. In addition, disturbance

of active nests will be avoided if burrowing owl is present during the nesting season (March 1st to August 31st). If active nests are identified, the biologist shall establish buffers around the vegetation containing the active nest of at least 150 meters.

Nesting Birds

The project site contains trees, shrubs, and herbaceous vegetation with the potential to support nesting birds. The Migratory Bird Treaty Act and California Fish and Game Code prohibit impacts to nesting birds. The project has the potential to significantly impact active nests if vegetation is to be removed during the nesting season (February 1 to August 31). Mitigation Measure BIO-2 would be implemented to ensure that the project would not result in impacts to nesting birds by avoiding the nesting season or conducting pre-construction surveys if work occurs during the nesting season. With this mitigation, impacts to nesting birds would be less than significant.

> **Mitigation Measure BIO-2**: The removal of potential nesting vegetation will be conducted outside of the nesting season (February 1 to August 31) to the extent that this is feasible. If vegetation must be removed during the nesting season, a qualified biologist shall conduct a nesting bird survey of potentially suitable nesting vegetation prior to removal. Surveys will be conducted no more than three (3) days prior to scheduled removals. If active nests are identified, the biologist shall establish buffers around the vegetation containing the active nest of at least 500 feet of an active listed species or raptor nest, and 300 feet of other sensitive or protected nests. The vegetation containing the active nest will not be removed, and no grading will occur within the established buffer, until a qualified biologist has determined that the nest is no longer active (i.e., the juveniles are surviving independent from the nest). If clearing is not conducted within three days of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.

Raptor Foraging Habitat

The project site consists mostly of disturbed areas of non-native grasslands and RSS, which are both suitable foraging habitats for numerous raptor species. Raptors observed on-site include, two special-status species listed on the State watch list, Cooper's hawk (*Accipiter cooperii*), and merlin (*Falco columbarius*), and four non-listed species, American kestrel (*Falco sparverius*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*). One state listed fully protected species was observed offsite, a juvenile golden eagle (*Aquila chrysaetos*). Raptors species observed on-site have a low to high probability of using the project site for foraging. Abundant leporid prey (hares and rabbits) were observed on-site. No raptors were observed nesting on-site or immediately adjacent to the site during surveys.

The proposed project would result in the direct loss of foraging habitat for raptor species. The majority of the project site constitutes moderate quality foraging habitat for these

raptor species. Impacts to raptor foraging habitat would be less than significant through implementation of the terms and conditions of the MSHCP, which includes payment of fees for impacts to sage scrub habitat and implementation of Best Management Practices (BMPs) as outlined in Appendix C of the MSHCP. Mitigation for loss of raptor foraging habitat shall also be accomplished through on-site preservation of 17.69 acres of Riversidean sage scrub.

Impacts to Riparian Habitat or Sensitive Natural Communities

The project footprint will have direct impacts to two sensitive native vegetation communities, totaling approximately 55.48 acres, including Riversidean sage scrub (RSS) and southern willow scrub (SWS). Impacts to MSHCP riparian/riverine areas are discussed under a separate subheading below.

The proposed project would result in direct impacts to 54.35 acres of RSS in different areas of the project site, including 22.70 acres of undisturbed RSS and 31.65 acres of disturbed RSS. Of the approximately 72.17 acres of disturbed and undisturbed RSS located within the project site, 17.69 acres of RSS will be avoided, of which approximately 12.53 acres consist of undisturbed RSS. The proposed project would result in direct impacts to 1.12 acres of SWS habitat. Approximately 0.67 acre of SWS will be avoided by the project's footprint.

Impacts to these two habitats would be reduced by proposed avoidance and by coverage under the MSHCP for covered species with the potential to occur in these habitats. Thus impacts would be less than significant.

MSHCP Riparian/Riverine Areas and Vernal Pools

The project site contains approximately 2.34 acres of MSHCP riparian/riverine areas, of which 1.89 acres support riparian habitat and 0.45 acre supports unvegetated riverine habitat. Areas meeting the MSHCP definition of vernal pools were not detected during surveys.

The project will impact 1.55 acres of MSHCP riparian/riverine areas, including 1.13 acres of riparian vegetation and 0.42 acre of unvegetated riverine areas. Impacts are anticipated to be lessened by the implementation of BMPs to reduce runoff pollution impacts during construction and operation; however, impacts to riparian habitats are still considered potentially significant prior to mitigation. For unavoidable impacts to MSHCP riparian/riverine areas, Section 6.1.2 of the MSHCP requires that the Permittee prepare a DBESP to ensure the replacement of any lost functions and values of habitat as it relates to Covered Species. A DBESP has been prepared and is included in Appendix G of this Initial Study. The DBESP concluded that avoidance of impacts to 1.55 acres of riparian/riverine areas is infeasible based on the nature of the project and the need to complete the construction of Terra Cotta Road along its established alignment. Given the disturbed nature of the project site, the minimized impacts to riparian/riverine areas, and the marginal habitat quality, the proposed off-site mitigation will result in a biologically equivalent or superior condition within the MSHCP Plan Area compared with the

existing conditions. Through the acquisition of mitigation credits supporting equal or superior values, the project would replace lost functions and values and would be considered a biologically equivalent or superior project, in compliance with the MSHCP. Implementation of Mitigation Measure BIO-3 would reduce impacts to below a level of significance.

> **Mitigation Measure BIO-3**: Prior to the issuance of a grading permit, the project applicant shall obtain the necessary authorizations from the regulatory agencies for proposed impacts to jurisdictional waters. Authorizations may include a Section 404 Permit from the U.S. Army Corps of Engineers, a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife, and a Section 401 Water Quality Certification/Waste Discharge Requirement from the Regional Water Quality Control Board. The Permittee shall offset impacts to riparian/riverine areas by purchasing credits at the Riverside-Corona Resource Conservation District in-lieu fee program, or another approved in-lieu fee program or mitigation bank within the Santa Ana River Watershed, to be approved by the appropriate regulatory agency(s). The project shall offset the loss of 1.13 acres of riparian habitat at a 3:1 ratio, for a total of 3.39 acres; and shall offset the loss of 0.42 acre of unvegetated riverine areas at a ratio of 3:1, for a total of 1.26 acres. Total compensatory mitigation shall be a minimum of 4.65 acres.

Indirect Impacts

The project is not expected to result in significant indirect impacts to special-status biological resources, with the implementation of measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (Volume I, Section 6.1.4 of the MSHCP) and the BMPs in the Preliminary Water Quality Management Plan (Appendix B of this Initial Study). The Guidelines are intended to address indirect effects associated with locating projects (particularly development) in proximity to a MSHCP Conservation Area. To minimize potential edge effects, the Guidelines are to be implemented in conjunction with review of individual public and private development projects. The project site does not occur within the MSHCP Criteria, but is located adjacent to Criteria Cell #4157. The MSHCP targets approximately 45 to 55 percent of Cell 4157 for inclusion into the MSHCP Conservation Area, focusing on the western portion of the Cell. As such, the northern portion of the project site may occur adjacent to the MSHCP Conservation Area, or at least will occur in close proximity to the Conservation Area. As such, the project would be required to implement the Wildlife/Urban Interface Guidelines, consistent with the MSHCP. Implementation of Mitigation Measures BIO-4, BIO-5, and BIO-6 would ensure that potential indirect impacts to the MSHCP Conservation Area are reduced to below a level of significance.

Mitigation Measure BIO-4: To avoid or reduce indirect impacts of the project on the MSHCP Conservation Area (Criteria Cell #4157) adjacent to or in close proximity of the project, the project shall include the following measures:

Drainage. The project shall incorporate measures to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. The project shall implement BMPs as identified in the Preliminary Water Quality Management Plan (Appendix B of this Initial Study).

Toxics. Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area.

Lighting. Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting, ensuring that ambient lighting in the MSHCP Conservation Area is not increased. Additionally, the project shall adhere to the City's lighting standards which would avoid shining light onto adjacent properties.

Noise. Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. The project shall include applicable structures to ensure that wildlife within the MSHCP Conservation Area will not be subject to noise that would exceed residential noise standards, both during and post-construction.

Invasives. Project landscaping shall use native, drought-tolerant and non-invasive plants. Specifically, the project shall avoid the use of invasive plant species listed in Volume I, Table 6-2 of the MSHCP.

Barriers. Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage and/or other appropriate mechanisms.

Grading/Land Development. No manufactured slopes associated with the project shall extend into the MSHCP Conservation Area.

Mitigation Measure BIO-5: The developer shall comply with the City's updated landscape requirements for the use of native, drought-tolerant and non-invasive plants, and shall not install invasive species listed at Volume I, Table 6-2 of the MSHCP. This measure applies during construction and installation of improvements.

Mitigation Measure BIO-6: The developer shall provide language in the Covenants, Conditions, and Restrictions (CC&Rs) for the project which requires compliance with the City's updated landscape requirements for the use of native, drought-tolerant and non-invasive plants and provides that homeowners may not replace such plants with invasive species. Developer shall incorporate into the CC&Rs the requirement that the invasive species provided on Volume I, Table 6-2 of the MSHCP are prohibited. The CC&Rs shall incorporate the list of invasive species, Volume I, Table 6-2 of the MSHCP, for reference.

Cumulative Impacts

The proposed project will contribute to regional cumulative impacts as it pertains to the loss of riparian habitat, foraging, and live-in habitat for special status wildlife, the loss of raptor foraging habitat, and the loss of nesting bird habitat. However, with coverage under the MSHCP, and with the additional mitigation measures in this Initial Study, the cumulative impacts attributed to the project would be reduced to a less-than-significant level.

b,c) A Jurisdictional Delineation was completed by Glen Lukos Associates in October 2012 for the project site. The project site was surveyed to determine the amount of waters subject to U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), California Department of Fish and Wildlife (CDFW) jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the California Fish and Game Code, and Santa Ana Regional Water Quality Control Board jurisdiction pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act.

Potential Corps jurisdictional waters total 0.70 acre, of which 0.09 acre consists of wetlands. A total of 8,730 linear feet of streambed is present. Potential Corps jurisdiction within the project area is limited to three drainage systems, or drainages. The project would result in permanent impacts to 0.48 acre of Corps jurisdictional waters, of which 0.02 acre consists of jurisdictional wetlands. Permanent impacts will occur to 7,557 linear feet of streambed.

Waters potentially subject to Regional Board jurisdiction total 0.71 acre, of which 0.09 acre consists of wetlands. A total of 9,283 linear feet of streambed is present. The project would result in permanent impacts to 0.50 acre of Regional Board jurisdictional waters, of which, 0.02 acre consists of jurisdictional wetlands. Permanent impacts will occur to 7,883 linear feet of streambed.

Waters potentially subject to CDFW jurisdiction total 2.34 acres, of which 1.89 acres consist of vegetated riparian habitat. The project would result in permanent impacts to 1.55 acres of CDFW jurisdictional waters, of which 1.13 acres consist of vegetated riparian habitat and 0.42 acre consists of unvegetated streambed associated with the riparian habitat. Permanent impacts will occur to 7,883 linear feet of streambed.

Impacts to Corps, Regional Board and CDFW jurisdictional waters are considered a significant impact. Mitigation BIO-3 would require authorization and compensatory mitigation for project impacts. Implementation of this mitigation would reduce impacts to a less-than-significant level.

d) The project site is not located within any established native resident or migratory wildlife corridor as the project site is surrounded by residential development to the south, east, and west. Construction and operation of the project would not interfere with existing wildlife corridors and use of any native wildlife nursery sites. Therefore, less than significant impacts would occur to existing wildlife corridors.

e) The General Plan has local policies or ordinances to protect biological resources of local concern including special-status/sensitive habitats and species. These impacts are discussed under Item 4a and 4b above. With coverage afforded under the MSHCP and adherence to recommended mitigation measures, impacts would be reduced to a less-than-significant level.

f) The project site is located within the Elsinore Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area. The project site is located within the MSHCP Burrowing Owl Survey Area and the Narrow Endemic Plant Survey Area (NEPSSA) number 1, but is not located within the MSHCP Mammal or Amphibian Survey Areas. Target plant species associated with NEPSSA 1 include Munz's onion (Allium munzii), San Diego ambrosia (Ambrosia pumila), slender horned-spineflower (Dodecahema leptoceras), many-stemmed dudleya (Dudleya multicaulis), spreading navarretia (Navarretia fossalis), California Orcutt grass (Orcuttia californica), San Miguel savory (Clinopodium chandleri), Hammitt's clay-cress (Sibaropsis hammittii), and Wright's trichocoronis (Trichocoronis wrightii).

Within the designated Survey Areas, the MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species have been met throughout the MSHCP. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met, if applicable. If equivalency findings cannot be demonstrated, then "biologically equivalent or superior preservation" must be provided.

The purpose of this discussion is to provide an analysis of the proposed project with respect to compliance with biological aspects of the Western Riverside County MSHCP. Specifically, this analysis evaluates the proposed project with respect to the project's

compliance with MSHCP Reserve assembly requirements, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures).

Project Relationship to Reserve Assembly

The entire project is located within the Elsinore Area Plan of the MSHCP. No part of the project site occurs within a Criteria Cell proposed for conservation under the MSHCP; therefore, the project is not subject to the Habitat Assessment and Negotiation Strategy or Joint Project Review processes, and thus the project is consistent with the Reserve Assembly requirements of the MSHCP.

Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

The project site contains areas defined by the MSHCP as riparian/riverine areas. The project site does not support vernal pools or vernal pool associated species. Impacts to MSHCP riparian/riverine areas will require purchasing of credits to offset the loss of impacts to riparian/riverine areas per Mitigation Measure BIO-3.

Protection of Narrow Endemic Plant Species

The project site is located within the MSHCP NEPSSA. Focused plant surveys were conducted for species identified under Section 6.1.3 of the MSHCP in areas of the project site that contained potentially suitable habitat, and none of the NEPSSA target species were identified onsite. As such, the project is consistent with MSHCP requirements.

Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. Indirect impacts to the off-site potential Conservation Area are discussed above under Item 4a,b for the following issues: Drainage, Toxics, Lighting, Noise, Invasive species, Barriers, and Grading/Land Development. Implementation of Mitigation Measure BIO-4 would reduce indirect impacts to a less-than-significant level, and would be consistent with the MSHCP.

Additional Survey Needs and Procedures

The project site is not located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA) pursuant to Section 6.1.3 of the MSHCP. Therefore, the CAPSSA requirements are not applicable to the project.

The project site is not located within the MSHCP Additional Survey Areas for Amphibians, Mammals, or any Special Linkage Areas; but is within the Survey Area for the burrowing owl. Breeding season protocol surveys for the western burrowing owl were conducted pursuant to the Burrowing Owl Survey Instructions as set forth by the MSHCP and resulted in negative findings of burrowing owl and sign. Mitigation Measure BIO-1,

which requires that pre-construction presence/absence survey for burrowing owls be conducted where suitable habitat is present, would result in consistency with the MSHCP.

Conclusion of MSHCP Consistency

As outlined above, the proposed project would be compliant with the biological requirements of the MSHCP with implementation of the project BMPs outlined in the Preliminary Water Quality Management Plan (Appendix B of this Initial Study), and implementation of Mitigation Measures BIO-1 through BIO-6; specifically this consistency pertains to the project's relationship to Reserve Assembly requirements, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures). Thus, the project would be consistent with the MSHCP.

Cultural Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
5.	**CULTURAL RESOURCES — Would the project:**				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion

a,b) A Cultural Resources Assessment was prepared by Archaeological Associates in 2004 for the previously proposed residential development of the project site. An Addendum to this report was prepared in August 2013 to update the Cultural Resources Assessment.

The records search conducted for the project site indicated that a small portion (approximately 1,200 feet) of the study area was previously surveyed during a linear survey for the Elsinore Valley Municipal Water District (EVMWD) that traversed south to northeast through the middle of the subject property. A 1995 cultural resources study, conducted by Bruce Love of CRM Tech for a 1.5 mile section of proposed pipeline associated with the Temescal Valley Intertie Pipeline Project for the EVMWD, resulted in the identification of two prehistoric archaeological sites (RIV-5782 and RIV-5783). No additional sites were discovered during the 2004 or 2013 field studies conducted by Archaeological Associates.

RIV-5782 is a small boulder bearing a milling feature. The resource could not be found during the 2013 survey and appears to have been removed during the construction of the EVMWD pipeline project. RIV-5782 was not considered significant within the meaning of CEQA. Therefore, development of the project would not cause a substantial adverse change in the significance of any identified archaeological resource.

RIV-5783 was originally characterized as an artifact scatter consisting of both lithics and ground stone implements. Artifacts observed included a portable metate fragment, a basalt hammerstone, a quartzite mano fragment, and a basalt flake. During surveys in 2004, the area was noted to be highly disturbed by numerous off-road trails and dumping of household trash and greenwaste. During the 2013 survey it was noted to be in the same condition. A Phase II investigation was conducted for cultural resource RIV-5783 and consisted of surface collection, auger sampling program, and hand unit excavation. New finds made included core fragments and several flakes. No definitive indications of a subsurface deposit were observed but such a deposit may exist on the project site. According to the results of the Phase II investigation, no significant sub-surface deposit of archaeological material was encountered and no datable finds were recovered at RIV-5783. Therefore, the site has been determined to represent an insignificant resource and lack sufficient merit for inclusion into the California Register of Historical Resources. No further work in conjunction with RIV-5783 was recommended.

Outside the project site, seven additional sites have been recorded within a one-mile radius and are described below.

- RIV-3408, a lithic scatter with two loci;
- RIV-3832H, an abandoned alignment of the Atchison, Topeka and Santa Fe Railroad built in 1927;
- RIV-4320H, the Torn Ranch consisting of two residences (main house dating to 1924) and two large 1938 warehouses used to process walnuts; and
- RIV-5784H, concrete foundations of a former residence (circa 1920s) with associated brick landscaping.
- RIV-8102, single bedrock milling stick, one possible mano, and one hammerstone.
- RIV-8105, four prospect trenches and abandoned section of railroad grade
- RIV-8106, three prospecting pits.

It is unlikely that these seven sites will be impacted with development of the project because they are located outside of the project site. Therefore, development of the project would not cause a substantial adverse change in the significance of any identified historical resource.

No properties listed under the National Register of Historic Places (NRHP), California Historical Landmarks (CHL), or California Points of Historical Interest (CPHI) have been recorded within the study area or within a one-mile radius. Furthermore, during the

course of the 2004 and 2013 field investigations of the project site, no historic resources of any kind were discovered.

Although survey results indicated that further cultural resources are not likely to be found on the project site, unidentified cultural resources could be present and be potentially impacted by construction of the project. Without proper mitigation, the project could potentially impact significant cultural resources. Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4 would reduce this impact to a less-than-significant level by monitoring earth moving-activities and notifying the City in the event of a discovery.

The milling feature at RIV-5782 may be destroyed in the event the study area is fully developed; however, this feature has been fully documented and recorded within the Eastern Information Center at UC Riverside. Consequently, adverse impacts to the milling station site have been addressed through the aforementioned recordation program. Although the cumulative total of all related project development creates the potential for additional impact to cultural and paleontological resources, each project would develop adequate mitigation measures to substantially decrease or avoid impacts through the CEQA process and City and County standard conditions. Impacts to cultural and paleontological resources found on the project site would be mitigated. Therefore, no significant cumulative loss of cultural or paleontological resources would occur and cumulative impacts would be less than significant.

Mitigation Measure CUL-1: All earth moving activities within the project area during construction shall be monitored by a qualified archaeologist selected from the latest Riverside County Cultural Resources Consultant List.

Mitigation Measure CUL-2: If inadvertent discoveries of subsurface archaeological/cultural resources are discovered during grading, the developer, the project archaeologist, and the appropriate tribe shall assess the significance of such resources and shall meet and confer regarding the mitigation for such resources. Pursuant to California Public Resources Code Section 21083.2(b) avoidance is the preferred method of preservation for archaeological resources. If the developer and the Tribe cannot agree on the significance or the mitigation for such resources, these issues will be presented to the Community Development Director (CDD) for decision. The CDD shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources and shall take into account the religious beliefs, customs, and practices of the appropriate tribe.

Mitigation Measure CUL-3: At least 30 days prior to seeking a grading permit, the project applicant shall contact the appropriate Native American Tribal Representative (Representative)* to notify the Representative of the initiation of the grading, excavation and the monitoring program, and to coordinate with the City of Lake Elsinore and the Representative to develop a Cultural Resources Treatment and Monitoring Agreement. The Agreement shall address the responsibilities and participation of Native American Tribal monitors during

grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation; and treatment and final disposition of any cultural resources, sacred sites and human remains discovered on the site. The archaeological monitor and the appropriate Tribe will evaluate the significance of any archaeological resource discovered on the property. Tribal and archaeological monitors shall be allowed to monitor all grading, excavation and groundbreaking activities, and shall have the authority to stop and redirect grading activities. (*It is anticipated that the Pechanga Tribe will be the "appropriate" Tribe due to prior and extensive coordination with the City in determining potentially significant impacts and appropriate mitigation measures and its demonstrated cultural affiliation with the project area.)

Mitigation Measure CUL-3A: Prior to any grading at or near the vicinity of the known surface boundaries of CA-RIV-5782 and CA-RIV-5783, the developer shall meet and confer with the appropriate Tribe and the project archaeologist to develop an appropriate controlled grading plan. The purpose of the controlled grading at and around the site is to afford the opportunity to determine whether any subsurface resources are associated with the sites and, if so, to collect the resources for appropriate mitigation as outlined in the Treatment Agreement. All controlled grading shall be monitored in accordance to the provisions of the Agreement required in CUL-3.

Mitigation Measure CUL-4: The landowner shall relinquish ownership of all cultural resources, including sacred items, burial goods and all archaeological artifacts that are found on the project area to the appropriate tribe for proper treatment and disposition.

c) A Paleontological Survey Report was prepared in 2005 for the previously proposed residential development of the project site (Archaeological Associates). Results from this report are still relevant as there have been no significant changes to the project site or immediate vicinity since 2005, which would impact paleontological resources on the project site or in the immediate vicinity. At the time of the survey, no recorded fossil localities, fossil lists, published or unpublished literature within the boundaries of the project site were located. While no paleontological resources have been identified onsite, the subject property may contain paleontological resources from Paleocene and Pleistocene sedimentary units. The sedimentary rock unit under the site is considered to be of high paleontological sensitivity and is known to contain significant fossils near the proposed development area. Therefore, development of the project may directly or indirectly impact or destroy unidentified paleontological resources, which is considered a potentially significant impact. Incorporation of Mitigation Measures CUL-5 and CUL-6 would reduce impacts to a less-than-significant level by monitoring construction and notifying the City should any paleontological resources be discovered.

Mitigation Measure CUL-5: A paleontological grading observation schedule by a certified paleontologist shall be maintained when grading in bedrock sedimentary units to further evaluate the fossil resources of the site.

Mitigation Measure CUL-6: During construction-related activities of the project, should paleontological materials be unearthed, the Lake Elsinore Planning Department shall be notified immediately. Construction affecting the area shall be halted and the City shall coordinate the appropriate efforts for handling and/or disposition of these materials.

d) Although survey results indicated that further cultural resources are not likely to be found on the project site, unidentified cultural remains including aboriginal, historic materials or human remains could be present and be potentially impacted by construction of the project. This is considered a potentially impact significant. Incorporation of Mitigation Measure CUL-7 would reduce impacts to a less-than-significant level by notifying the County Coroner should any human remains be discovered.

Mitigation Measure CUL-7: If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. Subsequently, the Native American Heritage Commission shall identify the person or persons it believes to be the "most likely descendant." The most likely descendant may then make recommendations, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98.

Geology, Soils, and Seismicity

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
6. GEOLOGY, SOILS, AND SEISMICITY — Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion

a,c,d) The project site has undergone multiple geotechnical investigations, the most recent of which was in 2007 (Albus-Keefe & Associates, Inc.) The discussion of seismic and soils issues are still relevant, as there have been no significant changes to the project site or immediate vicinity since 2004, which would impact seismic or soils conditions on the project site or in the immediate vicinity.

The project site is located in a seismically active area, but there are no known active faults crossing the site and the site is not located in or immediately adjacent to an Alquist-Priolo Earthquake Fault Zone. Therefore, ground rupture due to faulting is considered unlikely.

Aerial photography of the site was reviewed and geotechnical borings and test pits were excavated in areas where a landslide would be suspected. These excavations exposed intact bedrock with massive to horizontal bedding. No landslide debris was identified, indicating that landslides were absent within that portion of the project site.

Field investigations indicated groundwater to be at a depth of 9 to 17 feet below the existing surface. The effects of liquefaction would not be a factor due to depth of the liquefiable soils along with the volume of overburden materials above the liquefiable zone. Therefore, liquefaction would not manifest itself at the surface.

Soils that exhibit moderate to high shrink/swell potential may cause damage to components, including underground utilities, pipelines, foundations, and infrastructure. Onsite soils expansion potential is very low to very high as indicated in the previous geotechnical investigation.

The project would be constructed in accordance with the 2010 California Building Code (CBC) as amended by Chapter 15 of the City Municipal Code. The project would also adhere to the recommendations of the geotechnical report. By incorporating standard design features recommended in the geotechnical investigation and identified in the CBC, impacts would be reduced to a less-than-significant level.

b) According to data from the Natural Resources Conservation Service, soils of the project area and vicinity have slight to moderate erosion potential with one soil type showing high erosion potential. Erosion control measures would be included as required by the Water Quality Management Plan and the Storm Water Pollution Prevention Plan for the project's National Pollutant Discharge Elimination System permit. These measures would include revegetating disturbed soils (unless otherwise specified by the fuels modification plan) and covering any soils stockpiles among other standard practices. By implementing these measures, impacts with respect to erosion would be less than significant.

e) The project would connect to a public sewer and thus this issue is not applicable.

Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
7. GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

Discussion

a,b) An Air Quality and Global Climate Change Impact Analysis (Kunzman Associates, Inc., 2013) was prepared to analyze the potential impacts associated with greenhouse gas

emissions resulting from the proposed project and was used in the preparation of this section.

The City of Lake Elsinore has adopted a Climate Action Plan that requires a 22.3 percent reduction in GHG emissions per service population between years 2008 and 2020. These efficiency-based targets were derived by dividing the statewide Assembly Bill (AB) 32 targeted emissions levels for 2020 and statewide Executive Order S-3-05 targeted emissions level for 2030 by the 2020 and 2030 statewide service population respectively. These targets represent the maximum quantity of emissions each resident and employee in the State of California could emit in 2020 and 2030 based on emissions levels necessary to achieve the statewide AB 32 and Executive Order S-3-05 GHG emissions reduction goals. The City of Lake Elsinore Climate Action Plan also contains the following GHG-related measures that are applicable to the proposed project:

- T-1.2 Pedestrian Infrastructure. Through the development review process, require the installation of sidewalks along new and reconstructed streets. Also require new subdivisions and large developments to provide sidewalks or paths to internally link all uses where applicable and provide connections to neighborhood activity centers, major destinations, and transit facilities contiguous with the project site; implement through conditions of approval.
- E-1.1 Tree Planting Requirements. Through the development review process, require new development to plant at minimum one 15-gallon nondeciduous, umbrella-form tree per 30 linear feet of boundary length near buildings, per the Municipal Code. Trees shall be planted in strategic locations around buildings or to shade pavement in parking lots and streets.
- E-1.3 Energy Efficient Building Standards. Adopt an ordinance requiring that all new construction exceed the California Energy Code requirements, based on the 2008 Energy Efficiency Standards by 15 percent (consistent with CalGreen Tier 1), through either the performance based or prescriptive approach described in the California Green Building Code; implement through conditions of approval. Alternately, a solar photovoltaic system and/or solar water heating may be used to assist in meeting all or a portion of the 15 percent requirement.
- E-4.1 Landscaping Ordinance. Through the development review process, enforce the City's Assembly Bill 1881 Landscaping Ordinance; implement through conditions of approval.
- E-4.2 Indoor Water Conservation Requirements. Amend the City's Uniform Building Code to require development projects to reduce indoor water consumption by 30 percent (consistent with CalGreen Tier 1, Section A5.303.2.3.1), and implement through conditions of approval.

For the purposes of this analysis the proposed project would generate a significant level of GHG emissions and be inconsistent with the Climate Action Plan if the proposed project did not meet the target reduction of at least 22.3 percent between the year 2010 (closest year available to 2008 in CalEEMod) and 2020.

In order to determine if the proposed project would comply with the Climate Action Plan Standards, the GHG emissions from the proposed project were analyzed for 1) year 2010 without implementation of the GHG reduction measures provided in the Climate Action Plan and 2) year 2020 with implementation of the GHG reduction measures provided in the Climate Action Plan. The CalEEMod Version 2011.1.1 was used to calculate the GHG emissions from the proposed project. The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, and construction equipment.

A summary of the results are shown below in Table 9. The proposed project in 2010 would generate 8,874.56 metric tons of CO2E per year. Without implementation of the project specific measures provided in the Climate Action Plan, the proposed project would not meet the Climate Action Plan's GHG emissions reduction target of 22.3 percent by 2020. This would result in a potentially significant impact.

Mitigation Measures GRE-1, GRE-2, GRE-3, GRE-4 and GRE-5 are provided that will require the applicant to implement the measures applicable to the proposed project in the Climate Action Plan. Table 9 shows that for the year 2020 with implementation of these mitigation measures, the proposed project would generate 6,850.32 metric tons of CO2E per year, which represents a 22.8 percent reduction in GHG emissions. As this is within the Climate Action Plan's target reduction of at least 22.3 percent, with mitigation the project would have a less than significant impact with respect to GHG emissions.

Mitigation Measure GRE-1: The project applicant shall implement Measure E-1.3 from the Climate Action Plan, which requires that all of the proposed structures exceed the 2008 Title 24 energy efficiency standards by a minimum of 15 percent.

Mitigation Measure GRE-2: The project applicant shall implement Measure T-1.2 from the Climate Action Plan, which requires the installation of sidewalks along all new streets to link neighborhood activity centers, major destinations and transit facilities.

Mitigation Measure GRE-3: The project applicant shall implement Measure E-4.1 from the Climate Action Plan, which requires that the Landscape Plan for the proposed project adhere to the City's Assembly Bill 1881 Landscape Ordinance.

Mitigation Measure GRE-4: The project applicant shall implement Measure E-4.2 from the Climate Action Plan, which requires that new developments reduce indoor water consumption by 30 percent. This shall be achieved through the use of low-flow fixtures for all faucets, toilets and showers that are installed in the proposed project.

TABLE 9
PROJECT-RELATED GREENHOUSE GAS EMISSIONS

Category	Proposed Project Emissions CO_2e (MT/yr)
Year 2010 Emissions	
Area Sources	337.44
Energy Usage	2,023.10
Mobile Sources	5,961.25
Solid Waste	249.60
Water and Wastewater	219.39
Construction	83.78
Total 2010 Emissions	**8,874.56**
Year 2020 Emissions with Implementation of Mitigation Measures 3, 4, 5, 6 and 7	
Area Sources	337.37
Energy Usage	1,873.95
Mobile Sources	4,464.81
Solid Waste	249.60
Water and Wastewater	173.57
Construction	83.78
Vegetation	-332.76
Total 2020 Emissions	**6,850.32**
Percent Reduction between 2020 and 2010 emissions	**22.8%**
City Percent Reduction Threshold	**22.3%**

CO_2e= carbon dioxide equivalent; MT/yr = metric tons per year

SOURCE: Kunzman Associates, Inc, 2013 (Appendix A).

Mitigation Measure GRE-5: The project applicant shall implement Measure E-1.1 from the Climate Action Plan, which requires that new developments plant a minimum one 15 gallon nondeciduous umbrella form tree per 30 linear feet of boundary length. This has been calculated to require the planting of a minimum of 470 trees on the project site.

Mitigation Measure GRE-6: The project applicant shall implement Measure T-1.4 from the Climate Action Plan, which requires that new development implement and connect to the network of bikeways, trails and safety features identified in the General Plan, Bike Lane Master Plan, Trails Master Plan and Western Riverside County Non-Motorized Transportation Plan.

Hazards and Hazardous Materials

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
8. 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?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Discussion

a,b) The proposed project would involve the transport of fuels, lubricants, and various other liquids needed for operation of construction equipment at the site and would be transported to the construction site on an as-needed basis by equipment service trucks. Materials hazardous to humans, wildlife, and sensitive environments would be present during project construction. These materials include diesel fuel, gasoline, equipment fluids, concrete, cleaning solutions and solvents, lubricant oils, adhesives, human waste, and chemical toilets. The potential exists for direct impacts to human health and biological resources from accidental spills of small amounts of hazardous materials from construction equipment during construction.

Existing federal and state law regulates the handling, storage and transport of hazardous materials and hazardous wastes. At the federal level, the Resource Conservation and Recovery Act (RCRA; 42 USC 6901 et seq.) requires businesses with substantial

quantities of hazardous materials (including fuels, lubricants, solvents, and paints) to adhere to strict requirements in handling, transporting, and storing their supplies. Pursuant to the federal Hazardous Materials Transportation Act, 49 U.S.C. § 5101 et seq., the United States Department of Transportation promulgated strict regulations applicable to all trucks transporting hazardous materials. Occupational safety standards have been established in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace, including construction sites. The California Division of Occupational Safety and Health has primary responsibility for developing and enforcing standards for safe workplaces and work practices in California in accordance with regulations specified in CCR Title 8. For example, under Title 8 CCR 5194 (Hazard Communication Standard), construction workers must be informed about hazardous substances that may be encountered and under Title 8 CCR 3203 (Injury Illness Prevention Program) workers must be properly trained to recognize workplace hazards and to take appropriate steps to reduce potential risks due to such hazards. This is particularly important where previously unidentified contamination or buried hazards may be encountered. If additional investigation or remediation is determined to be necessary, compliance with standards for hazardous waste operations (Title 8 CCR 5192) would be required for those individuals involved in the investigation or cleanup work. Thus, during construction contractors handling, storing or transporting hazardous materials or wastes must comply with regulations which would reduce the risk of accidental release and provides protocols and notification requirements should an accidental release occur. With these existing regulations, impacts during construction would be less than significant.

After construction, the proposed residential development would not involve the routine transport, use, or disposal of hazardous materials in significant quantities. Residents may use such items as gasoline, pesticides and some household cleaning products which, under normal circumstances of use, are considered less than significant.

c) The nearest schools are located one-half mile west and one-half mile south of the project. The proposed project is a residential development and would not involve hazardous emissions or handling of hazardous materials. As the project site is not located within one-quarter mile of an existing or proposed school and does not involve hazards to nearby schools, there would be no impact for this issue.

d) A Phase I Environmental Site Assessment (ESA) was conducted for the subject property by LGC Inland, Inc. in 2004. At this time neither the site nor surrounding properties posed significant environmental concerns which would prevent development of the project site with residential uses. ESA performed a regulatory agency database search for the project area using the California State Water Resources Control Board (SWRCB) GeoTracker and the California Department of Toxic Substances Control (DTSC) Envirostor databases (SWRCB, 2013; DTSC, 2013) in addition to review of other hazardous site lists maintained by the State (California Environmental Protection Agency, 2013). The databases search regulatory agency lists of sites with a documented release of hazardous materials or petroleum products. Regulatory agency lists included in

the database search included: Federal Superfund (EPA National Priorities List); State Response; Voluntary Cleanup; Landfill Disposal Sites; Military Sites, Leaking Underground Storage Tank (LUST) Sites; and other sites. The search of available environmental records revealed that the proposed subject property is not listed in any of the databases reviewed as having environmental concerns and is not located on any hazardous materials site as designated by Government Code § 6592.5. Additionally, within the vicinity of the site there are no sites which would currently present concerns to development of the project site. Geotracker, for example, identified two LUST sites over ½-mile west/northwest and over 1-mile east/southeast of the project sites; however, these sites are closed cases of soil contamination which were resolved in 190 and 1994.

Another concern is the possible presence of radon. Radon is a gaseous radioactive element that leads to elevated lung cancer in humans. Sources of radon include earth and rock beneath homes, well water, and building materials. According to the United States Environmental Protection Agency (USEPA), the general area of the site has a Radon Zone Level of 2, which has a predicted average indoor screening level of between 2.0 picoCuries per liter of air (pCi/l) and 4.0 pCi/l. This level is below the USEPA action level of 4.0 pCi/l; therefore, based upon the reported subsurface characteristics of the area, the subject property exhibits a low potential for radon exposure.

Based upon the previous Phase I, as well as a review of federal, state, and local environmental databases, neither the project site nor the surrounding area present hazardous conditions for development of the site with residences. Thus, this impact is considered less than significant.

e,f) The closest private airstrip to the proposed project is McConville Airstrip, which is approximately 4 miles southwest of the project site. The closest public use airport to the proposed project is the Perris Valley Airport, which is located over 9 miles northeast of the project site. The project site is not located within an airport land use plan, nor is it located within two miles of a public or private airport. The proposed project does not present a safety hazard with respect to airports. Therefore, no impact would result for these issues.

g) The proposed project would not interfere with any adopted emergency response or evacuation plan. Each village area has two separate points of ingress and egress with the exception of Village 6 which would connect only to Terra Cotta Road. Development is required to comply with emergency vehicle access requirements (e.g. street width and turnaround requirements) in the 2010 CBC, including Fire Code, and thus impacts related to emergency access and evacuation would be less than significant.

h) The project site is located within a CAL FIRE Local Responsibility area within the Very High Fire Hazard Severity Zone. A Fire Behavior Analysis and Report for the project was prepared by Firesafe Planning Solutions (2012) to serve as the basis for a fuels modification plan for the project site. The analysis includes modeling of worst-case fire conditions based on historic fires, wind conditions and existing fuels on and adjacent to

the project site. The Specific Plan includes a fuel modification plan to address the risk of wildfire (Spectrum Communities, 2012). The conceptual fuel modification plan utilizes a combination of irrigated wet zone, thinning zones, physical barriers such as radiant heat walls and hardscape such as roadways to achieve defensible space that is appropriate for each interface as modeling determined the risk to be in that specific area. With the implementation of these measures the threat from wildfire would be reduced to a less-than-significant level.

Hydrology and Water Quality

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
9.	**HYDROLOGY AND WATER QUALITY — Would the project:**				
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d)	Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j)	Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion

Environmental Setting

Surface Water and Drainage

The project is located near Lake Elsinore within the Santa Ana River watershed. Lake Elsinore is fed by the San Jacinto River, which originates in the San Jacinto Mountains to the east, in central Riverside County. Under normal rainfall conditions, the San Jacinto River ends at Lake Elsinore and does not connect with the Santa Ana River. However, during years with high precipitation and runoff, the San Jacinto River flows through to the Santa Ana River. After leaving Lake Elsinore, water routes into Aberhill Creek. Aberhill Creek becomes Temescal Wash, which flows in a northwesterly direction toward the City of Corona, where it eventually merges with the Santa Ana River. The Santa Ana River and its tributaries originate in the San Gabriel and San Bernardino Mountains to the north, and in the San Gorgonio Mountains to the east, and drains to the Pacific Ocean near Huntington Beach.

The watershed drainage area surrounding the project site, including off-site and on-site areas, is approximately 308 acres. Topography is hilly, and includes an existing residential community, areas that have been previously graded for residential development (but not yet developed), and natural open space. The existing residential community and areas that have been previously graded but not developed drain via existing storm drain pipes to natural areas. The project site is currently undeveloped. Topography on site and in the vicinity of the project is hilly, and runoff is collected into a combination of existing natural swales, located north and west of the project site. This drainage flows toward Nichols Road, and eventually connects with Temescal Canyon Wash, near I-15. Drainage from the project site drains primarily into this area, with the exception of approximately 24 acres near the southern end of the project site, which drains to existing stormwater infrastructure along Dryden Street. Drainage along Dryden Street in turn drains to the south for about 1 ½ miles before out-letting to Lake Elsinore.

Flooding

With respect to flooding, the project site is not located within a 100-year flood zone (defined as a flood with a 1% annual chance of occurrence), as defined by the Federal Emergency Management Agency (FEMA). The nearest FEMA 100-year flood zone is located downstream of the project site, approximately 0.5 mile to the east, along Temescal Canyon Wash.

Groundwater

A geologic investigation completed for a previously proposed development project located on the same site as the project did not identify any substantial groundwater beneath the surface of the project site, but only identified isolated perched water in localized areas above bedrock (LGC, 2004). The project is located within the Elsinore Groundwater basin, which is bounded by the Santa Ana and Elsinore Mountains along the southwest, the Temescal Subbasin to the northwest, and by non water-bearing rocks to the northeast. Lake Elsinore is located in a closed groundwater basin. The basin contains alluvial fan, floodplain, and lacustrine deposits that reach a thickness of about 200 feet. Recharge in the basin is principally through infiltration of stream flow through alluvial fan deposits and unlined channels. Groundwater in storage has been estimated at about

1.1 million acre-feet (DWR, 2006). Average dissolved solids concentration within the basin is 460 mg/L (DWR, 2006).

Water Quality

Under the federal Clean Water Act, the State Water Resources Control Board's Clean Water Act Section 303(d) List of Impaired Water Bodies provides a summary overview of water bodies that are deemed as impaired for various pollutants within California. A review of the 2010 list indicated that Lake Elsinore and Temescal Creek, in the vicinity of the project, are listed for pollutants as shown in Table 10:

TABLE 10
CLEAN WATER ACT SECTION 303(D) IMPAIRED WATER BODIES

Pollutant	Source	TMDL Schedule
Lake Elsinore		
Nutrients	Unknown Nonpoint Source	Approved, 2005
Organic Enrichment/Low Dissolved Oxygen	Unknown Nonpoint Source	Approved, 2005
PCBs	Source Unknown	Estimated Completion 2019
Sediment Toxicity	Source Unknown	Estimated Completion 2021
Unknown Toxicity	Source Unknown	Estimated Completion, 2007
Temescal Creek		
Indicator Bacteria	Source Unknown	Estimated Completion, 2021

SOURCE: SWRCB, 2013

Impact Analysis

a,c,f) The project would include construction activities such as grading, earth moving, installation of roads and subsurface infrastructure, and various other construction related activities that could result in temporary upset of surface sediments. Additionally, the use of heavy construction related equipment including graders, bulldozers, excavators, and other construction machinery could result in the accidental release of construction fluids. These may include oils, greases, fuels, and antifreeze, as well as other materials including concrete washout, paint washout, and other construction related water quality pollutants. During storm events, surficial sediment and as construction related pollutants could become entrained in stormwater flows. During larger storm events, stormwater flows could make their way off site, leading to an increase in pollutant concentrations downstream for construction related pollutants and sediment. However, project construction activities would be required to apply for coverage under and adhere to the requirements of the SWRCB's Construction General Permit. Permit conditions would include development and onsite deployment of a Stormwater Pollution Prevention Plan (SWPPP) for all construction activities. The SWPPP would implement various BMPs designed to retain water and pollutants on site, and otherwise minimize the discharge of potential water quality pollutants to natural waterways. Permit conditions would also

include monitoring and reporting requirements to ensure that needed BMPs are deployed appropriately, and that potential water quality pollutant releases would be minimized in order to protect downstream beneficial use.

During the post-construction period, the project could result in various long term impacts to water quality from sources consistent with residential development. These include potential for release of various pollutants into stormwater, including the following:

- motor oil, antifreeze, brake dust, and other automotive fluids and compounds
- paint, soap, and household cleaners
- sediment
- lawn clippings and yard waste
- litter/trash
- pesticides and herbicides
- animal wastes

These and other potential water quality pollutants associated with the proposed development could build up on the proposed roadways, other impervious surfaces, and other residential uses during dry periods. During storm events, these pollutants could become entrained in stormwater and be discharged into municipal storm drains and eventually discharge into downstream waterways.

The project would include installation of permanent drainage systems (i.e., paved streets, catch basins, storm drains, curbs and gutters, and detention basins) to capture and direct runoff from the project.

Additionally, the project would be required to adhere to the conditions of the current municipal separate storm sewer system (MS4) permit for Riverside County (CAS 618033; Order No. R8-2002-0011). A Preliminary Water Quality Management Plan (Appendix B of this Initial Study) has been prepared for the project site that incorporates the requirements of the MS4 permit and other county and city level stormwater management requirements. As discussed in greater detail in Appendix B, the WQMP would deploy a number of site optimizations and installations that would reduce potential impacts on water quality and drainage. These include preservation of existing drainage patterns, protection of existing vegetation and sensitive areas, preservation of natural infiltration capacity in natural and open space areas, minimization of impervious surfaces, and dispersal of runoff to adjacent pervious areas. These would be deployed in accordance with Low Impact Development (LID) procedures for minimizing effects on stormwater and stormwater quality. An array of LID BMPs would be deployed based on feasibility specific to the project site. BMPs would be sized in accordance with County and MS4 permit requirements. Key pollutants of concern that would be minimized via implementation of the WQMP would include bacterial indicators, nutrients, pesticides, sediment, trash and debris, and oil and grease. Therefore, with implementation of the

WQMP including adherence to applicable permit conditions and requirements, potential operation period water quality impacts would be reduced to a less-than-significant level.

b) With respect to groundwater supplies, the project would not directly involve the pumping of groundwater during construction or operation. The project would result in the installation of new impervious surfaces. Impervious surfaces prevent the infiltration of groundwater into the subsurface, and can result in reduced infiltration of stormwater into the underlying sediments, resulting in reduced groundwater recharge. However, as discussed previously, groundwater recharge in the Elsinore Groundwater Basin occurs primarily along alluvium within existing streambeds. The project would not place new impervious surfaces in such areas. Additionally, under existing conditions, there is only limited groundwater underlying the project site. Therefore, the project would not substantially interfere with groundwater recharge or substantially deplete groundwater supplies and would result in less-than-significant impacts.

d,e) The project would involve on site grading and the installation of roadways, residential areas, and other facilities, which would alter existing drainage patterns on site. In order to manage stormwater after construction, the project would install permanent drainage systems including paved streets, catch basins, storm drains, curbs and gutters, and detention basins. These would be used in order to collect stormwater and detain it on site and/or discharge it to natural waterways. Additionally, as discussed for Items 9a, c, and f, the project would also include implementation of a WQMP for the project site, which would specify additional BMPs for the management of stormwater on site, in order to further reduce potential for discharges from the site during operation. Thus the project would result in less-than-significant impacts with respect to drainage patterns.

In order to quantify the potential effects of the project on stormwater and drainage, in comparison to existing conditions, a Preliminary Hydrology Analysis was completed for the site (Appendix C). The Preliminary Hydrology Analysis included a review of existing on site drainage conditions, as well as a modeled hydrologic/stormwater analysis. As discussed in greater detail in Appendix C, the project area was modeled based on three basins (A-C). Results from the modeled analysis are shown in Table 11, which provides a comparison anticipated stormwater discharges for existing conditions in comparison to the project, for each of the three basins, for 2-year, 5-year, and 10-year storm events.

As shown in Table 11, the project would result in substantial reductions in stormwater discharge for subbasins A and B, where most of the project-related discharge would occur. The project would result in a slight increase in stormwater discharge for Basin C, the smallest of the three basins considered, with the maximum increase of 5.0 cubic feet per second (cfs) indicated for a 10-year, 1-hour storm event within Basin C. However, this increase in discharge would be offset by much more substantial reductions in discharge from the other two basins. For example, for the 10-year, 1-hour storm event, modeled reductions for Basins A and B would total almost 129 cfs. Therefore, the project would not result in a net increase in stormwater discharge from the site.

TABLE 11
EXISTING AND MODELED WITH PROJECT STORMWATER DISCHARGES

Storm Type	Discharge (cubic feet per second)							
	Existing Conditions				With Project			
	1-hr	3-hr	6-hr	24-hr	1-hr	3-hr	6-hr	24-hr
Basin A								
2-yr	130.0	91.5	82.6	13.6	98.8	57.9	49.4	13.4
5-yr	197.4	147.3	134.8	41.2	154.5	99.9	86.3	21.0
10-yr	248.8	189.9	174.8	63.3	221.0	155.6	140.4	59.6
Basin B								
2-yr	72.0	48.1	42.1	7.3	26.8	15.3	13.1	2.6
5-yr	112.8	81.1	72.9	16.0	41.3	25.9	23.3	6.3
10-yr	166.2	129.8	119.7	48.5	59.4	43.2	41.7	31.2
Basin C								
2-yr	23.2	13.6	11.9	2.8	12.2	8.0	7.4	2.8
5-yr	23.8	15.2	13.9	4.1	17.9	12.4	11.6	4.0
10-yr	27.9	18.7	17.4	6.0	23.8	17.2	16.3	6.7

SOURCE: Appendix C.

With respect to drainage infrastructure, the project would include installation of new drainage infrastructure on site, sufficient to convey the proposed stormwater flows. Stormwater would be discharged from the site to natural waterways or to municipal storm sewer facilities that are anticipated to maintain sufficient capacity to carry the anticipated flows. Overall, the project would result in a net reduction in peak storm flows in comparison to existing conditions. Therefore, potential effects on downstream storm infrastructure would be less than significant.

g,h,i) No portion of the project area is located within a 100-year flood zone. Therefore the project would not place housing within a 100-year flood zone, nor would it place structures or other facilities within a 100-year flood zone such that flood flows could be altered. Additionally, the project is not protected from flooding by a dam or levee, or by any other flood control structure, the failure of which could cause harm. Thus, there would be no impact for these issues.

j) The project is located inland and at an elevation of at least 1,300 feet above sea level. Therefore, the project area would not be affected by tsunami. The project is not located immediately adjacent to a lake or other large water body, and therefore would not be affected by seiche. Finally, the project is located within a small watershed of limited area. Although the watershed has moderate topographic relief and some areas of light vegetation cover, watershed size is not large enough to generate a mudflow of sufficient

size to cause harm or damage to property. Thus, there would be no impact for these issues.

Land Use and Land Use Planning

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
10.	**LAND USE AND LAND USE PLANNING — Would the project:**				
a)	Physically divide an established community?	☐	☐	☒	☐
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐

Discussion

a) The project does not divide an established community. While there are residential uses east and west of the site these neighborhoods these neighborhoods are separated by the knoll on the southern portion of the property and lack connecting or unifying features. The project site has been planned and is zoned for further residential development. For these reasons, the project does not divide an established community.

b) The project would construct single- and multi-family residential uses within an area that is designated for residential use by the City of Lake Elsinore General Plan. While the project requires rezoning to Specific Plan, the development would not exceed the existing allowable density for the project site. The existing Low Density Residential designation comprises 27 acres and has a maximum allowed density of 3.0 dwelling units per acre. The existing Low-Medium Density Residential designation comprises 124 acres and has a maximum allowed density of 6.0 dwelling units per acre. Thus, the existing general plan would allow for up to 825 dwelling units. The Specific Plan includes a discussion of the consistency with the General Plan and determined that the Specific Plan was consistent (Spectrum Communities, 2014). The project must undergo City review and ultimately must be consistent with existing City policy to be adopted or propose an amendment to existing City policies (e.g. rezoning of the project site to Specific Plan for consistency with the City Zoning Plan is part of the project). Thus, the project is not anticipated to conflict with any applicable land use plan, policy, or regulation and this impact is considered less than significant.

c) For a discussion of the MSHCP, refer to Biological Resources.

Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
11. 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Discussion

a,b) The eastern portion of the project site is within a Mineral Resource Zone 3a (MRZ-3a) as delineated by the California Geological Survey (1991). The MRZ-3a designation indicates that a known mineral deposit of an undetermined significance is present on the site (kaolinite clay). The Pacific Clay Products, which operated the large Alberhill kaolinite clay mine north of the project site, formerly owned a portion of the project site. Though the MRZ-3a designation indicates a known occurrence of minerals of undetermined significance, the project site was never mined for kaolinite clay. In addition, the MRZ-3a designation does not take into consideration the ability to extract a mineral in an economically viable manner; rather the designation merely indicates the presence of known mineral resource. A mineral resource review, previously prepared by Lawson & Associates Geotechnical Consulting, Inc., concluded that the recovery of potential mineral resources from this site would not be economically viable because of varying soil types and the lack of viable clay deposits (i.e. clayey siltstone within the Silverado Formation). Therefore, less than significant impacts to mineral resources would result from the project.

Noise

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
12. NOISE — Would the project:				
a) Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☒
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

A Noise Impact Analysis (Kunzman Associates, Inc., 2013) was prepared to analyze the potential impacts associated with noise resulting from the proposed project and was used in the preparation of this section (Appendix D).

a,c,d) The following is a discussion of construction and operation phase noise impacts.

Construction Noise

The initial phase of construction would involve mass grading of the site, along with site development activities. Mass site grading is expected to produce the highest construction noise levels. Grading of the site is estimated to require several graders, dozers, excavators, scrapers, and pickup trucks. Following site preparation activities, the project would include construction of buildings. Construction of the buildings would require the following phases: site development, building construction, architectural coatings application, and paving associated with buildings.

A drop-off rate of 6 dBA per doubling of distance from proposed construction noise sources was utilized to calculate noise levels at nearby sensitive receptors. Maximum noise levels were calculated utilizing the Road Construction Noise Model (RCNM) provided by the Federal Highway Administration (FHWA). Unmitigated noise levels could reach a maximum noise level of up to 85.0 dBA Lmax at 50 feet, which is the closest to the nearest sensitive receptor that the loudest piece of equipment (a grader) is likely to be working for any length of time. Noise levels will lower substantially as construction moves away from the property line. The maximum noise level would be 79.0 dBA Lmax at 100 feet, 65.0 dBA Lmax at 500 feet, and 59.0 dBA Lmax at 1,000 feet.

Section 17.176.080 of the City of Lake Elsinore Municipal Code restricts construction which creates a noise disturbance across a residential or commercial real property line at night and on weekends or holidays. The code sets a maximum allowed construction noise level of 75 dBA Lmax in single-family residential areas between 7:00 AM and 7:00 PM. The code also sets a limit of 60 dBA Lmax in single-family residential areas between the hours of 7:00 PM and 7:00 AM The anticipated distances to the 60 and 75 dBA Lmax

project construction noise contours were calculated using RCNM. Without mitigation, sensitive receptors up to 160 feet from the property line (approximately 40 homes) could experience noise levels over 75 dBA Lmax which exceeds the City of Lake Elsinore noise standards during the day and is considered a potentially significant impact. Unmitigated noise levels could also reach 60 dBA Lmax up to 890 feet from the property line, which encompasses much of the surrounding neighborhoods. Construction noise levels at sensitive receptors within this area would exceed City of Lake Elsinore standards if construction occurred at night (7:00 PM to 7:00 AM), on weekends or on holidays. With the implementation of construction Mitigation Measures NOI-1 through NOI-7, construction noise levels would comply with the City of Lake Elsinore Municipal Code and impacts would be reduced to a less-than-significant level.

Mitigation Measure NOI-1: During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.

Mitigation Measure NOI-2: The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.

Mitigation Measure NOI-3: Temporary noise barriers that provide at least 10 dBA in attenuation must be installed when project construction occurs within 100 feet of existing residential structures. Any such barriers shall break the line of sight from noise generators to sensitive receptors. They shall also be constructed as close to the sensitive receptor as possible to achieve the greatest attenuation effect and have no gaps or openings. Such barriers shall be maintained throughout the construction period.

Mitigation Measure NOI-4: Provisions of the City's Noise Ordinance shall be satisfied during all site preparation and construction activity. Site preparation activity and construction shall not commence before 7:00 AM and shall cease no later than 5:00 PM, Monday through Friday. Only finish work and similar interior construction may be conducted on Saturdays and may commence no earlier than 8:00 am and shall cease no later than 4:00 p.m. Construction activity shall not take place on Sunday, or any Legal Holidays.

Mitigation Measure NOI-5: During construction, the developer shall require that all contractors turn off all construction equipment and delivery vehicles when not in use and prohibit idling in excess of 3 minutes. Easily visible signs shall be posted at the project site informing contractors and operators of this requirement.

Mitigation Measure NOI-6: The developer shall limit haul truck deliveries to weekdays only and from 7:00 a.m. to 5:00 p.m. Haul routes shall avoid residential neighborhoods, following the haul routes determined by the City.

Mitigation Measure NOI-7: For the duration of construction activities, the construction manager shall serve as the contact person should noise levels become disruptive to local residents. Developer shall post a publicly visible sign with the telephone number and person to contact regarding noise complaints. The construction manager, within seventy-two (72) hours of receipt of a noise complaint, shall either take corrective actions or, if immediate action is not feasible, provide a plan or corrective action to address the source of the noise complaint.

Traffic Noise Impacts to the Proposed Project

Buildout noise levels along Lakeshore Drive and Terra Cotta Road were modeled using SoundPLAN. Unmitigated buildout traffic noise levels could reach up to 71.2 dBA Ldn at the first floor (exterior) of proposed sensitive receptors along Lakeshore Drive and up to 73.1 dBA Ldn at second story (exterior) receptors. Unmitigated buildout traffic noise levels at proposed sensitive receptors along Terra Cotta Road could reach up to 70.5 dBA Ldn at first floor (exterior) receptors and up to 69.3 dBA Ldn at those on the second floor (exterior). Mitigation will be required in order to achieve the Title 24 California Building Code interior noise levels requirement of 45 dBA Ldn for multi-family housing and the General Plan exterior noise requirement of 65 dBA Ldn for all dwelling unit types.

A six-foot barrier was modeled along Lakeshore Drive (Lots 5-16) and the northwest side of Terra Cotta Road (Lots 431-441 and 459-468, or entire frontage of Village 6) using SoundPLAN. A five foot barrier was also modeled along the southeast side of Terra Cotta Road (Lots 66-72). Construction of these barriers would reduce exterior noise levels at first floor sensitive receptors to below 65 dBA Ldn. Mitigated buildout traffic noise levels and contours for selected representative sensitive receptors are shown in Appendix D. It is not feasible to construct a barrier high enough to reduce noise at second story sensitive receptors to acceptable levels. Therefore, enhanced building construction methods and materials must be employed to achieve acceptable interior noise levels. These methods include (but are not limited to) providing mechanical ventilation, using double paned glass, baffling exterior vents, and utilizing construction materials with a Sound Transmission Class (STC) of 30 or greater. Mitigation Measures NOI-7 and NOI-8 would reduce impacts to a less-than-significant level.

Mitigation Measure NOI-8: Mitigation is required in order to achieve exterior noise levels of 65 dBA Ldn at several proposed sensitive receptors adjacent to Lakeshore Drive and Terra Cotta Road. This mitigation shall be provided by constructing a five-foot barrier along the property lines of Lots 66-72 and a six-foot high barrier at the property lines of Lots 5-16, 431-441, and 459-468. A six-foot barrier will be constructed along the entire frontage with Terra Cotta Road. Barriers shall be constructed of any material weighing at least 4 pounds per square

foot. Barriers shall descend all the way to the ground and contain no holes or openings. Barriers shall wrap around to protect the side yards of lots adjacent to intersections. Recommended barrier configurations are shown in Appendix D (Figures 12 and 13) of this Initial Study.

Mitigation Measure NOI-9: As it is usually not aesthetically desirable to construct barriers high enough to reduce interior noise levels at second story sensitive receptors, enhanced building construction methods and materials must be employed to attenuate the approximately 20-28 dB required to achieve acceptable interior noise levels of 45 dBA Ldn. These methods include:

Noise Level Reduction of 15-20 dBA

1. Air conditioning or mechanical ventilation
2. Double-paned glass
3. Solid core doors with weather stripping and seals

Noise Level Reduction of 20-25 dBA

Measures 1-3 above and:

4. Stucco or brick veneer exterior walls or wood siding with one-half inch thick fiberboard underlayer
5. Glass portions of windows/doors not to exceed 20 percent
6. Exterior vents facing noise source shall be baffled

Noise Level Reduction of 25-30 dBA

Measures 1-6 above and:

7. Interior sheetrock of exterior wall attached to studs by resilient channels or double walls
8. Window assemblies, doors, wall construction materials, and insulation shall have a lab-tested STC rating of 30 or greater.

Off-Site Traffic Noise Impacts

The FHWA Traffic Noise Prediction Model - FHWA-RD-77-108 was used to model Existing and Existing Plus Project noise levels for each roadway segment analyzed in the traffic study prepared for the proposed project. The Existing traffic noise modeling resulted in noise levels ranging between 51.1 and 76.9 dBA Ldn at nearby sensitive receptors located near roadways. The Existing Plus Project traffic noise model resulted in noise levels ranging from 51.3 to 76.9 dBA Ldn at nearby sensitive receptors. The results of the traffic noise model are shown in Table 12.

For purposes of this study, roadway noise impacts would be considered significant if the project increases noise levels for a noise sensitive land use by 3 dBA Ldn and if: (1) the

existing noise levels already exceed the 65 dBA Ldn residential standard, or (2) the project increases noise levels from below the 65 dBA Ldn standard to above 65 dBA Ldn.

Noise levels along project area roadways are projected to increase from 0.0 to 4.8 dBA with the completion and operation of the proposed project. The largest increase, along Terra Cotta Road between Lakeshore Drive and Naples Way, will be 4.8 dBA Ldn, which falls below the level of increase that is considered to be readily perceptible (5 dB). Further, noise levels at the sensitive receptor closest to this segment will not exceed 65 dBA Ldn. Therefore, project related traffic noise will not result in a significant impact.

b) Construction of the proposed project and passing haul trucks will both generate ground-borne vibration noise that may be perceptible at the nearest sensitive receptor. Ground-borne vibration is an oscillatory motion that is often described by the average amplitude of its velocity in inches per second or more specifically, peak particle velocity. The ambient peak particle velocity of a residential area is commonly .0003 inches per second or less, well below the threshold of human perception of .0059 inches per second. Nonetheless, human reactions to vibration are highly subjective, and even levels below the threshold can cause minor annoyances like rattling of dishes, doors, or fixtures.

The most vibration-causing piece of equipment that will likely be used on-site is the vibratory roller. This machine can cause vibration strong enough to annoy people over 100 feet away. Due to the proximity of adjacent single-family detached residential dwelling units, project construction activities may result in ground borne vibration that is annoying but would only occur during site grading and preparation activities. Construction vibration will not result in any structural damage and this temporary and intermittent impact is not considered significant..

Based on Caltrans data, haul trucks would not be anticipated to exceed 0.10 in/sec peak particle velocity (ppv) at 10 feet. This level can be considered annoying if constant; however, the passage of haul trucks would be temporary and intermittent. Predicted vibration levels at the nearest offsite structures, which are located in excess of 25 feet from the traveled roadway segments would be even less. This impact would be less than significant. Mitigation Measures NOI-6 and NOI-7 provide even further assurances or less than significant impacts by limiting haul truck hours and posting contact information for noise complaints on site.

TABLE 12
PREDICTED FUTURE ROADWAY NOISE LEVELS

Roadway	Segment	Distance from roadway centerline to receiver (ft)	Noise Levels (dBA CNEL)				
			Existing	Existing Plus Project	Increase	Exceeds Standards	Significant Increase?
I-15 Freeway	North of Lake Street	850	71.5	71.5	0.0	YES	NO
	South of Nichols Road	230	76.9	76.9	0.0	YES	NO
Arnold Avenue	Stoddard Street to Gunnerson Street	37	51.1	51.3	+0.1	NO	NO

Roadway	Segment	Distance from roadway centerline to receiver (ft)	Noise Levels (dBA CNEL)				
			Existing	Existing Plus Project	Increase	Exceeds Standards	Significant Increase?
Dryden Street	Lakeshore Drive to Cimmaron Road	35	59.1	59.1	0.0	NO	NO
	Cimmaron Road to Arnold Avenue	35	59.0	59.0	0.0	NO	NO
Grand Avenue	South of Lakeshore Drive	60	51.1	51.3	+0.1	NO	NO
Gunnerson Street	Arnold Avenue to Lakeshore Drive	40	59.0*	62.1	+3.0	NO	NO
Hoff Avenue	East of Terra Cotta Road	60	59.0*	59.2	+0.2	NO	NO
Lake Street	North of Nichols Road	60	69.4	69.6	+0.2	YES	NO
Lakeshore Drive	Lake Street to Terra Cotta Road	55	68.4	68.4	0.0	YES	NO
	Terra Cotta Road to Dryden Street	55	68.9	69.0	+0.0	YES	NO
	Dryden Street to Machado Street	45	70.1	70.2	+0.1	YES	NO
	Machado Street to Gunnerson Street	40	71.1	71.1	0.0	YES	NO
	Gunnerson Street to Riverside Drive	50	70.1	70.1	0.0	YES	NO
	East of Riverside Drive	40	70.0	70.0	0.0	YES	NO
Machado Street	South of Lakeshore Drive	45	63.6	63.7	+0.1	YES	NO
Nichols Road	Terra Cotta Road to I-15 Freeway	860	54.3	54.6	+0.3	NO	NO
Riverside Drive (SR-74)	North of Lakeshore Drive	65	70.1	70.2	+0.0	YES	NO
	South of Lakeshore Drive	55	71.3	71.3	0.0	YES	NO
Terra Cotta Road	Lakeshore Drive to Naples Way	40	50.7	55.6	+4.8	NO	NO
	Terracina Drive to Hoff Avenue	200	59.0*	59.8	+0.7	NO	NO
	Hoff Avenue to Nichols Road	380	59.0*	59.4	+0.4	NO	NO

* Road segment has nominal existing traffic or is not built. Existing noise levels were assumed to be equal to ambient noise levels at the nearest measured location.

SOURCE: Appendix D

e) The closest public airport to the proposed project is the Perris Valley Airport, which is located over 9 miles northeast of the project site. The project site is not located within an airport land use plan, nor is it located within two miles of a public airport or public use airport. Therefore, project would not expose people residing or working in the project area to excessive noise levels. No impact would result.

f) The closest private airstrip to the proposed project is McConville Airstrip, which is approximately 4 miles southwest of the project site. Therefore, project would not expose people residing or working in the project area to excessive noise levels. No impact would result.

Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
13. 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a) The project would provide residential units for the population already planned for by the City of Lake Elsinore General Plan. The Low Density Residential designation comprises 27 acres and has a maximum allowed density of 3.0 dwelling units per acre. The Low-Medium Density Residential designation comprises 124 acres and has a maximum allowed density of 6.0 dwelling units per acre. Thus, the existing general plan would allow for up to 825 dwelling units, while the project proposes 468 units. Therefore, the project related growth is anticipated and would be less than significant.

b,c) The project would not result in the displacement of people or housing as the site is currently vacant. Therefore, the project would have no impact with respect to these issues.

Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
14. PUBLIC SERVICES — Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, 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 following public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

Discussion

a.i) The City of Lake Elsinore contracts for fire services with the Riverside County Fire Department (RCFD) and the California Department of Forestry and Fire Protection (CAL FIRE). The closest fire station to the project site is Station 85, the McVicker Park Fire Station. This fire station is located at 29405 McVicker Canyon Park Road in Lake Elsinore, just over one mile southwest of the southern project boundary. There are three other stations within the City limits although the newer Rosetta Canyon Fire Station (Station 97) will not be staffed until July 2013. Response times are established by RCFD guidelines with a goal calling for response to any location within the City to be seven minutes, with the intent to reduce that time to five minutes (City of Lake Elsinore, 2011).

The project would increase the demand for fire suppression and emergency medical response services. Design of the proposed project is required to comply with the 2010 California Building and Fire Codes (e.g., hydrants, water flow, fuel modification zones, and street design) to reduce the risks associated with fire. The project is within 7 minutes driving time of Station 85 with the southern portion being within 5 minutes driving time. The project is not anticipated to result in the need for new fire facilities as the RCFD currently has an unstaffed station which would house any increased operations for the City and improve overall City response times. Increased development within the City could eventually require the development of new fire stations to maintain a response goal of five to seven minutes, although it is difficult to attribute this need to any one development. The project would generate General Fund revenue through development fees and property taxes along with other development to compensate for cumulative fire facility needs. As the development would not require new facilities and would contribute toward funding future facilities to address cumulative needs, this impact is considered less than significant.

Impacts associated with wildfires are discussed under Hazards and Hazardous Materials. The Specific Plan includes a fuel modification plan to address the risk of wildfire (Spectrum Communities, 2012).

a.ii) The City of Lake Elsinore contracts for police services through the Riverside County Sheriff's Department. The Sheriff's Station is located at 333 West Limited Avenue, three miles southeast of the project site. The City is staffed at approximately 0.85 officers per 1,000 residents with a goal of 1.0 officer per 1,000 residents (City of Lake Elsinore 2011).

The project would increase the demand for law enforcement services. The project proposes 468 residential units and the City has approximately 3.5 persons per household (California Department of Finance, 2013), thus the project population would be estimated at 1,638 persons. At current staffing levels (0.85 officers per 1,000 residents) the project would be anticipated to result in the need for an additional 1.4 police officers, and at goal staffing levels (1.0 officer per 1,000 residents) the project would result in the need for an additional 1.6 police officers. The staffing of 1.4 to 1.6 additional police officer positions is not anticipated to result in the need for a new police station or substation; however, increased development within the City could eventually require additional substations. The project would generate General Fund revenue through development fees and property taxes along with other development to compensate for cumulative police facility needs. As the development would not require new facilities and would contribute toward funding future facilities to address cumulative needs, this impact is considered less than significant.

a.iii) The proposed project would develop residential uses which would increase school enrollment within the Lake Elsinore Unified School District (LEUSD). The project site would be served by Machado Elementary School, Terra Cotta Middle School and Lakeside High School as identified by the LEUSD Facilities Master Plan (2013). Under buildout conditions however, the Facilities Master Plan anticipates that the project site would be served by a new elementary school in the Alberhill area. Table 13 identifies the available design capacity (including use of non-permanent structures) at the existing elementary schools that would serve the project. Table 14 identifies the number of students per school that would be generated by the project. As shown in Tables 13 and 14, there is currently capacity to support students generated by the proposed project. Additionally the project is required to pay appropriate school fees, in accordance with AB 2926, AB 1600 and AB 181. As the existing schools have capacity for the project and school fees would contribute towards facility maintenance, the direct impact of the project would be less than significant.

TABLE 13
EXISTING SCHOOL CAPACITY

School	2012/2013 Enrollment	Maximum Design Use	Available Capacity
Machado Elementary School	684	953	**269**
Terra Cotta Middle School	1,323	1,913	**590**
Lakeside High School	1,875	2,918	**1,043**

SOURCE: LEUSD, 2013.

TABLE 14
PROJECT STUDENT GENERATION

School	Single Family Generation Rate (Students per Dwelling Unit)	Single Family Students Generated (for 448 units)	Multifamily Generation Rate (Students per Dwelling Unit)	Multifamily Students Generated (for 51units)	Total Students Generated	Available Capacity (see Table 13)
Machado Elementary School	0.2865	128.35	0.1303	6.65	140.00	**269**
Terra Cotta Middle School	0.1446	64.78	0.0528	2.69	67.47	**590**
Lakeside High School	0.1911	85.61	0.0706	3.60	89.21	**1,043**

SOURCE: LEUSD, 2013.

Given the number of proposed residential projects, the Facilities Master Plan anticipates that additional school sites will be needed under buildout conditions. Three elementary school sites, including one in the Alberhill area have been identified as schools that would be needed in the future. The timing of these projects however has not been determined given a recent decline in enrollment and reduced housing development due to market conditions. As such, the analysis of future school sites at this time would be speculative; however, these projects will be subject to CEQA and/or City plan review once they are proposed by LEUSD. The project would help to fund capital improvements through the previously mentioned school fees, reducing the project's contribution to a less-than-significant level.

a.iv) The project includes 1.6 acres of park space. This park space is part of the project and the environmental impacts of development are analyzed in this document. The development of this park space on site would fulfill demands created by the project for a neighborhood park which would reduce direct impacts to a less than significant level.

Development of the City through 2030 as identified in the City's Parks and Recreation Master Plan (2009) will require new park facilities to satisfy cumulative needs. The timing of these projects however has not been determined and thus analysis of future park

sites at this time would be speculative; however, these projects will be subject to CEQA and/or City plan review once they are proposed. The City requires the proposed project to dedicate land or fees in lieu for park and recreation facilities in order to achieve a standard of five acres of park space per 1,000 residents. As discussed under Item 14a.ii, the project is anticipated to have a population of 1,766.5 persons, which by City requirements would require 8.8 acres of park space or payment of in-lieu fees. The project does not provide 8.8 acres of park space and will be required to pay in-lieu fees to the City Park Capital Improvement Fund, as required by Chapter 16.12 and 16.34 of the City Municipal Code. This would reduce the project's cumulative impact to a less-than-significant level.

a.v) The City is part of the Riverside County Library System. The nearest library to the project site is the Lakeside Library at 32593 Riverside Drive, approximately 1.5 miles south of the project site. The proposed project will increase population and associated burden on City libraries. The project alone is not anticipated to result in the need for a new library; however, increased development under buildout conditions within the City could eventually require expansion of existing facilities. The timing of expansion or new facilities however has not been determined and thus analysis of future library sites at this time would be speculative; however, these projects will be subject to CEQA and/or City plan review once they are proposed. The project will be required to pay a Library Mitigation Fee pursuant to Chapter 16.34 of the City Municipal Code to reduce the project's impact to a less-than-significant level.

Recreation

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
15.	**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 facilities would occur or be accelerated?	☐	☐	☒	☐
b)	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion

a) The development of residential uses would increase demands on recreational facilities including parks. To offset this increased demand, the project incorporates recreational areas and open space for new residences. The proposed project includes 1.6 acres of parkland and 22 acres of open space. The project also allows for an additional recreation area to be located in Village 6 for the multi-family residential development. The development of this park space and open space on site would fulfill demands created by

the project for neighborhood recreation which would reduce direct impacts to a less than significant level. As discussed in Item 14.a.iv above, cumulative development through 2030 would require new or expanded recreational facilities. The timing of these projects however has not been determined and thus analysis of future park sites at this time would be speculative; however, these projects will be subject to CEQA and/or City plan review once they are proposed. The City requires the proposed project to dedicate land or fees in lieu for park and recreation facilities in order to achieve a standard of five acres of park space per 1,000 residents. The project does not provide 8.8 acres of park space and will be required to pay in-lieu fees to the City Park Capital Improvement Fund, as required by Chapter 16.12 and 16.34 of the City Municipal Code. This would reduce the project's cumulative impact to a less-than-significant level.

b) The recreational areas proposed as part of the project are analyzed throughout this Initial Study. The project would not otherwise require the construction or expansion of recreational facilities and thus would have less-than-significant impacts for this issue.

Transportation and Traffic

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
16. TRANSPORTATION AND TRAFFIC — Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Discussion

A Traffic Impact Analysis (Kunzman Associates, Inc., 2013) was prepared to analyze the potential impacts to transportation and traffic resulting from the proposed project and was used in the preparation of this section. The study involves 17 intersections within the project area including Interstate 15 (I-15) freeway ramps. A list of these intersections and related figures for setting and analysis are included in Appendix E.

a) **Construction**

The project is not anticipated to conflict with applicable plans, ordinances, or policies related to traffic and transportation during construction. While the project would have a less than significant impact during construction, Mitigation Measures TRA-1, TRA-2 and TRA-3 are included to further reduce impacts:

Mitigation Measure TRA-1: The developer shall require that the speed of earth-moving equipment will be 25 miles per hour of less, and shall post signs onsite to this effect.

Mitigation Measure TRA-2: The developer shall use reasonable trip reduction requirements during project construction including, for example, contracting with a local food truck company to provide lunch onsite.

Mitigation Measure TRA-3: Terrra Cotta Road shall be graded and used as construction access prior to precise grading activities. Prior to building permits, Terra Cotta Road shall be paved (final lift to be placed at completion of building activity). Construction traffic shall use Terra Cotta via Nichols Road to minimize impacts to existing residents.

Operation

The definition of an intersection deficiency has been obtained from the City of Lake Elsinore General Plan. The General Plan states that peak hour intersection operations of Level of Service D or better are generally acceptable. Therefore, any intersection operating at Level of Service E to F was considered deficient. For existing traffic conditions, the study area intersections are currently operating within acceptable Levels of Service during the peak hours except for the following study area intersections that currently operate at unacceptable Levels of Service during the morning peak hour:

- Lake Street (NS) at I-15 Freeway NB Ramps (EW) – #1
- Terra Cotta Road (NS) at Lakeshore Drive (EW) – #9

The unsignalized intersections have been evaluated for traffic signals using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the Manual of Uniform Traffic Control Devices 2003 California Supplement, dated January 21, 2010. Traffic signals appear to currently be warranted at the following study area intersections for existing traffic conditions:

- Lake Street (NS) at:
  - I-15 Freeway NB Ramps (EW) – #1
  - I-15 Freeway SB Ramps (EW) – #2
- I-15 Freeway SB Ramps (NS) at Nichols Road (EW) – #16

Existing Plus Project Conditions

The proposed development is projected to generate approximately 4,561 daily vehicle trips, 359 of which occur during the morning peak hour and 475 of which occur during the evening peak hour, as shown in Table 15.

TABLE 15
PROJECT TRIP GENERATION ESTIMATES

				A.M. Peak			P.M. Peak		
Land Use	**Size**		**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Single Family Detached Residential	448	dwelling units	4,265	85	251	336	282	166	448
Multi-Family Attached Residential	51	dwelling units	296	4	19	23	18	9	27
Total Project Trips			4,561	89	270	359	300	175	475

SOURCE: Appendix E.

Table 16 provides a summary of Level of Service impacts for study intersections and residual Level of Service after incorporation of mitigation (Mitigation Measure TRA-4 through 7). For Existing Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

- Lake Street (NS) at:
  - I-15 Freeway NB Ramps (EW) – #1
  - I-15 Freeway SB Ramps (EW) – #2 Terra Cotta Road (NS) at:
- Terra Cotta Road (NS) at:
  - Nichols Road (EW) @ Terra Cotta Road – #5
  - Lakeshore Drive (EW) @ Terra Cotta Road – #9
- I-15 Freeway NB Ramps (NS) at Nichols Road (EW) – #17

Traffic signals are projected to be warranted at the following additional study area intersections for Existing Plus Project traffic conditions:

- Terra Cotta Road (NS) at Lakeshore Drive (EW) – #9
- I-15 Freeway NB Ramps (NS) at Nichols Road (EW) – #17

For Existing Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with implementation of Mitigation Measures TRA-4 through TRA-7.

Cumulative Plus Project Conditions

Table 16 provides a summary of cumulative Level of Service impacts for study intersections and residual Level of Service after incorporation of planned improvements. Cumulative conditions considers existing traffic, development of other projects including Alberhill Ranch and area wide growth at opening year 2016.

For Cumulative Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

- Lake Street (NS) at:
  - I-15 Freeway NB Ramps (EW) – #1
  - I-15 Freeway SB Ramps (EW) – #2
- Terra Cotta Road (NS) at:
  - Nichols Road (EW) – #5
  - Lakeshore Drive (EW) – #9
- I-15 Freeway NB Ramps (NS) at Nichols Road (EW) – #17

A traffic signal is projected to be warranted at the intersection of Terra Cotta Road (NS) at Nichols Road (EW) - #5, for Cumulative Plus Project traffic conditions. For Cumulative Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with implementation of Mitigation Measure TRA-4 through TRA-7.

> **Mitigation Measure TRA-4**: The developer shall participate in the phased construction of the off-site intersection improvements through payment of established City of Lake Elsinore fees, participation in the Western Riverside Transportation Uniform Mitigation Fees program, payment of the project's fair share traffic contribution (see Tables 9 and 10 of Appendix E), assessment district and/or community facilities district financing, and construction of off-site facilities under appropriate fee credit agreements.

TABLE 16
INTERSECTION LEVEL OF SERVICE – EXISTING AND CUMULATIVE PLUS PROJECT

		Existing Plus Project				Existing Plus Project with Improvements				Cumulative Plus Project				Cumulative Plus Project with Improvements			
		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
Intersection	**Control[1]**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**				
1. Lake Street at I-15 NB Ramps	Cross Street Stop	**99.9**	**F**	27.8	D	14.4	B	15.5	B	**99.9**	**F**	**47.4**	**E**	14.8	B	15.6	B
2. Lake Street at I-15 SB Ramps	Cross Street Stop	11.5	B	34.2	D	10.0	A	17.8	B	12.2	B	**68.9**	**F**	12.5	B	24.7	C
3. Lake Street at Nichols Road	Traffic Signal	23.0	C	20.8	C	-	-	-	-	28.2	C	26.4	C	-	-	-	-
4. Lake Street at Lakeshore Drive	Traffic Signal	22.5	C	18.1	B	-	-	-	-	23.4	C	18.3	B	-	-	-	-
5. Terra Cotta Road at Nichols Road	Cross Street Stop	**50.2**	**F**	18.9	C	14.7	B	11.2	B	**99.9**	**F**	**36.4**	**E**	16.9	B	11.8	B
6. Terra Cotta Road at Hoff Avenue	Cross Street Stop	9.3	A	9.3	A	-	-	-	-	9.4	A	9.4	A	-	-	-	-
7. Terra Cotta Road at Terracina Drive	Cross Street Stop	9.2	A	9.4	A	-	-	-	-	9.3	A	9.7	A	-	-	-	-
8. Terra Cotta Road at Naples Way	Cross Street Stop	8.9	A	8.8	A	-	-	-	-	9.0	A	9.0	A	-	-	-	-
9. Terra Cotta Road at Lakeshore Drive	Cross Street Stop	**99.9**	**F**	**45.2**	**E**	9.3	A	6.5	A	**99.9**	**F**	**92.3**	**F**	11.1	B	7.1	A
10. Dryden Street at Arnold Avenue	Cross Street Stop	9.5	A	9.6	A	-	-	-	-	9.5	A	9.6	A	-	-	-	-
11. Dryden Street at Cimarron Road	Cross Street Stop	9.2	A	9.8	A	-	-	-	-	9.2	A	9.9	A	-	-	-	-
12. Dryden Street at Lakeshore Drive	Cross Street Stop	14.2	B	11.9	B	-	-	-	-	15.5	C	12.6	B	-	-	-	-
13. Stoddard Street at Swan Avenue	Cross Street Stop	8.7	A	8.4	A	-	-	-	-	8.7	A	8.4	A	-	-	-	-
14. Machado Street at Lakeshore Drive	Traffic Signal	18.8	B	21.8	C	-	-	-	-	20.6	C	24.5	C	-	-	-	-
15. Riverside Drive at Lakeshore Drive	Traffic Signal	27.6	C	31.8	C	-	-	-	-	30.5	C	37.5	D	-	-	-	-
16. I-15 Freeway SB Ramps at Nichols Road	All Way Stop	17.7	C	13.5	B	10.5	B	7.9	A	22.5	C	18.1	C	10.6	B	7.7	A
17. I-15 Freeway NB Ramps at Nichols Road	Cross Street Stop	**46.9**	**E**	**41.3**	**E**	7.6	A	12.6	B	**99.9**	**F**	**98.7**	**F**	8.2	A	13.1	B

SOURCE: Appendix E

Mitigation Measure TRA-5: The developer shall construct on-site and off-site roadway improvements, including but not limited to, the following:

a. Construct Terra Cotta Road at its full-width improvement as a Secondary Highway with a 90-foot right-of-way from Lakeshore Drive north to the northern boundary of the project prior to building permit issuance.

b. Construct the extension of Terra Cotta Road from the north project boundary to Nichols Road with a paved roadway section, as approved by the City Engineer, in conjunction with development.

c. Construct the extension of Hoff Avenue from the west project boundary to Terra Cotta Road with a paved roadway section, as approved by the City Engineer, in conjunction with development.

d. Pay fair share of construction of a traffic signal at the intersection of Terra Cotta Road (NS) and Nichols Road (EW).

e. Construct Lakeshore Drive adjacent to the project site at its ultimate half-section width including sidewalk and parkway improvements consistent with the adjacent improved sections of Lakeshore Drive and additional 14' width for a northbound right turn lane on Lakeshore at Terra Cotta Road in conjunction with development.

f. Intall a traffic signal at the off-set intersection of Lakeshore Drive and Terra Cotta Road.

g. Construct Dryden Street adjacent to the project site at its ultimate half-section width including sidewalk and parkway improvements in conjunction with development. Dryden Street shall be restricted to right turn in/out and left turns in only at its intersection with Lakeshore Drive.

h. Construct Stoddard Street adjacent to the project site at its ultimate half-section width including sidewalk and parkway improvements in conjunction with development.

i. On-site traffic signing/striping shall be implemented in accordance with detailed street improvement plans for the project.

j. Sight distance at the project accesses shall comply with standard California Department of Transportation/City of Lake Elsinore sight distance standards. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans shall be reviewed and approved by the City of Lake Elsinore prior to the issuance of any grading permits for the project.

Mitigation Measure TRA-6: The traffic improvements to be installed by the developer will be phased improvements as required by the build-out of the project

to address traffic impacts. A traffic improvement plan which includes the timing of phased improvements shall be submitted to the City of Lake Elsinore for review and approval prior to issuance of any grading permits for the project. Where improvements are needed to mitigate for operational impacts, the improvements must be in place and operational before occupancy permits are issued.

Mitigation Measure TRA-7: The developer will comply with the traffic conditions of approval determined by the City of Lake Elsinore for the project, including but not limited to, the payment of Transportation Uniform Mitigation Fees and Traffic Infrastructure Fees as listed and required in Mitigation Measure TRA-4 and appropriate conditions of approval.

b) The Congestion Management Program (CMP) for Riverside County is prepared and updated by the Riverside County Transportation Commission (RCTC, 2011). Interstate 15 and State Highway 74 are highways within the CMP; however, neither has existing deficiencies (below LOS E) in the vicinity of the City. The project would contribute to unacceptable levels of service at I-15 intersection ramps under both existing and cumulative conditions; however, with the implementation of mitigation measure TRA-7, impacts would be reduced to a less-than-significant level. Thus, the project's contribution is considered less than significant with mitigation.

c) The project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Therefore, no impact would result.

d) There is a potential traffic hazard from the off-set intersection at Terra Cotta Road and Lakeshore Drive. The installation of a traffic signal required under mitigation measure TRA-5 would reduce this impact to less than significant.

e,f) The proposed circulation system, including all sight distance design requirements, number of access points, and pedestrian and bicycle facilities will comply with City codes, policies and standards. Each village area would have two separate points of ingress and egress with the exception of Village 6 which would connect only to Terra Cotta Road. Bikeways and sidewalks would be constructed within the rights-of-way of perimeter streets for Lakeshore Drive and Terra Cotta Road and neighborhood bikeways and sidewalks would be construction within rights-of-way for all on-site local streets to allow connectivity to arterial streets. Therefore, less than significant impacts would result for these issues.

Utilities and Service Systems

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
17.	**UTILITIES AND SERVICE SYSTEMS — Would the project:**				
a)	Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c)	Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e)	Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

a,b,d,e) The following is a discussion of impacts related to public water and wastewater service for the project. Water and wastewater service would be provided by the Elsinore Valley Municipal Water District (EVMWD) via existing lines near along streets adjacent to the project site. EVMWD provides water, wastewater and reclaimed water service to the Cities of Lake Elsinore, Canyon Lake, Wildomar, portions of the City of Murrieta and unincorporated portions of Riverside County. There are existing 8-inch and 30- inch water lines along Lakeshore Drive, Terra Cotta Road, Dryden Street, Stoddard Street and Swan Avenue which would be used for connections to water service. The site would have a looped water system to help meet domestic water pressure and fire-flow pressure requirements. For wastewater, a lift station would be located on site and would be maintained by EVMWD. Wastewater flows from the project site would be collected and would be conveyed to the existing 10-inch sewer line on Lakeshore Drive. The EVMWD is currently in compliance with the Santa Ana Regional Water Quality Control Board's treatment requirements.

The EVMWD Wastewater Master Plan (2008) anticipates average and peak wastewater flows at 2030 and full buildout. Similarly the EVMWD Urban Water Management Plan projects future water supplies through 2030 for both normal and dry-year scenarios

(2011). Both documents have identified that future water and wastewater needs identified by development of the City's Land Use Plan can be accommodated, although additional water and wastewater facilities will be needed for cumulative growth. As discussed previously, the project proposes less residential development (468 dwelling units) then could ultimately be built under the existing maximum allowable density (825 dwelling units). As the project does not exceed the development assumptions of the City's Land Use Plan it is anticipated to be consistent with the findings of the Wastewater Master Plan and Urban Water Management Plan, which are based on these assumptions.

The project proponent will be required to pay for utility rates and connection fees to reduce the impacts from increased demands to water and wastewater services to a less-than-significant level. Construction of new lines or expansion of existing lines is not proposed at this time and thus is not analyzed in this document. Future improvements for cumulative development would be subject to environmental analysis pursuant to CEQA and City review and approvals.

c) As discussed in Item 9d and e, the project would include installation of new on-site drainage infrastructure on site sufficient to convey the proposed stormwater flows to three infiltration or detention basins. Treated or excess flows would be routed to either natural waterways or to the existing 42-inch storm drain along Lakeshore Drive. Overall, the project would result in a net reduction in peak storm flows in comparison to existing conditions and would not require off-site construction or expansion of stormwater facilities. As such, this impact would be less than significant.

f) Chapter 14.12 of the City Municipal Code requires that project construction divert a minimum of 50 percent of construction and demolition debris. Following construction, the project would be served by CR&R, the City's franchise trash hauler. All residents would be provided 60-gallon containers for garbage, recycling and recycling. These containers would be hauled to either a Materials Recovery Facility, transfer facility or landfill in Riverside County. The landfills typically used by the City of Lake Elsinore are the El Sobrante, Badlands and Lamb Canyon Landfills. The El Sobrante Landfill is the closest to the project site. The El Sobrante, Badlands and Lamb Canyon Landfills based on current planning efforts and permitted daily capacity have anticipated closure dates of 2045, 2024, and 2021 respectively (CalRecycle, 2013). Both the Badlands Landfill and the Lamb Canyon Landfill also have room for potential expansion (City of Lake Elsinore, 2011). As the amount of solid waste generated by the project would be accommodated by these existing landfills and overall solid waste would be reduced by the provision of recycling and green waste residential collection, impacts from the project would be less than significant.

g) The proposed project would comply with federal, state and local statutes and regulations related to solid waste and thus no impacts would occur for this issue.

Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
18. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

a) The project would not result in significant impacts to special-status plant or wildlife populations or habitat. The project does not affect important examples of major periods of California history or prehistory. Mitigation measures have been incorporated to reduce potential impacts to unknown resources to a less-than-significant level.

b) Cumulative impacts which could potentially be significant are included within the resource-specific discussions above (Items 1-17). The cumulative analysis considered past projects, existing projects, future projects. With mitigation, cumulative impacts would be reduced to a less-than-significant level.

c) As analyzed in the specific-resources sections above any environmental affects directly or indirectly affecting humans would be reduced to a less-than-significant level with mitigation.

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