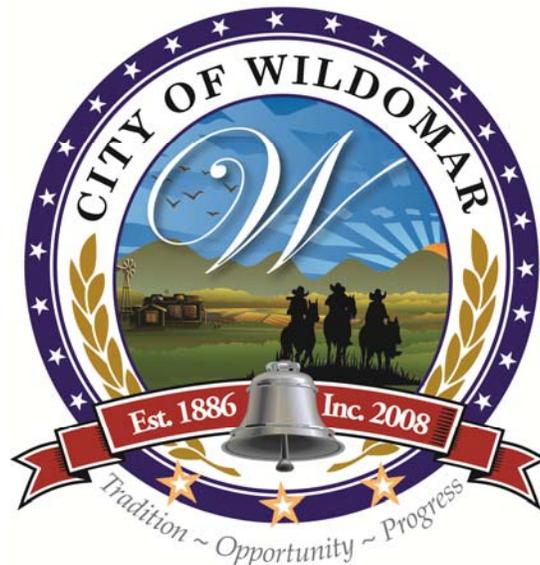


CITY OF WILDOMAR

HORIZONS DEVELOPMENT PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT

SCH No. 2015011021



Lead Agency:

CITY OF WILDOMAR
23873 CLINTON KEITH ROAD, SUITE 201
WILDOMAR, CA 92595

AUGUST 2015

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STATE CLEARINGHOUSE NO. 2015011021

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ES - EXECUTIVE SUMMARY

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15123, this section of the Draft Environmental Impact Report (DEIR; Draft EIR) provides a brief summary of the project, significant impacts, and proposed mitigation measures. The remainder of the document and technical appendices provide the discussion and support for the conclusions found here.

ES1 PURPOSE AND SCOPE OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

This Draft EIR has been prepared by the City of Wildomar (City) to analyze the potential environmental effects associated with implementation of the proposed Horizons Development Project in Wildomar. DEIR analysis focuses on potential environmental impacts that could arise from implementation of the proposed project, as regulated and guided by the large number of federal, state, and local regulations, including ordinances, General Plan policies, and local resource plans. The DEIR is intended to provide a credible worst-case scenario of the impacts resulting from project implementation.

ES2 PROJECT SUMMARY

The proposed project is a residential and senior living development on an approximately 20 acre site. The residential portion of the project includes 138 two-story townhomes on approximately 12 acres. The residential area also includes a recreation building and 350 parking spaces. The townhomes will have a stucco finish, individual garages, and sloped roofs.

The proposed senior living facility comprises a single one and two-story building with 86 units and 86 parking spaces on approximately 6 acres. The building will be similar in style to the townhomes.

In addition to the residential development, the project also includes the extension of Elizabeth Lane along the eastern boundary of the project site and a 2-acre open space area along the western boundary. Within the proposed project site is a 1.5-acre retention basin and a 1-acre open space area that preserves an existing drainage.

The proposed project is anticipated to be developed in a single phase, with a projected opening year of 2017.

ES3 PROJECT ALTERNATIVES SUMMARY

California Environmental Quality Act (CEQA) Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. Further, CEQA Guidelines Section 15126.6(e) requires that a "no project" alternative be evaluated in an EIR. Section 4.0, Alternatives, provides a detailed discussion and a qualitative analysis of the following scenarios:

- **Alternative 1 – No Project Alternative.** CEQA Guidelines Section 15126.6(e) requires that a No Project alternative be evaluated in an EIR. The No Project analysis must discuss the circumstance under which the project does not proceed. The comparison is that of the proposed project versus what can reasonably be expected to occur on the property should the proposed project not be approved. The analysis allows decision-makers to compare the impacts of approving the project with the impacts of not approving the project (CEQA Guidelines Section 15126.6(e)(3)(B)).

It is important to note that the No Project Alternative does not necessarily mean the project site will remain in an undeveloped state. If no action is taken on the proposed project, it is reasonable to assume that another project would be proposed at some point in the future. The City of Wildomar designates this project site Business Park (BP). This land use designation is characterized by employee-intensive uses such as research and development, technology centers, corporate offices, "clean" industry, and supporting retail uses. The City of Wildomar Zoning Ordinance zones this site Rural Residential (R-R), which is intended to provide for the development of low-density residential uses. Just as with the proposed project, future development would require either a General Plan Amendment to change the designation to residential use or a change of zone to support a business park use in order for the land use designation and zoning district to be consistent with one another.

Under this alternative, the 20-acre site would be available for development of office space. It is likely that there would be several buildings on separate parcels rather than a single building. Multiple buildings will reduce the total potential building area, as each parcel must comply with storm drainage storage, landscape, and parking requirements. While the BP land use designation allows a total build area of 0.60, the City is more accustomed to projects with a floor area ratio (FAR) of 0.35. Therefore, this alternative assumes a total FAR of 0.35 for a total assumed building size of 304,920 square feet.

- **Alternative 2 – All Commercial Alternative.** The proposed project includes a change for a portion of the site to commercial uses to support the senior living facility. This alternative would change the General Plan land use designation from Business Park (BP) to Commercial Retail (CR) and would also involve a zone change from Rural Residential (R-R) to General Commercial (C/1-C/P) for the entire site. Land uses allowed under this commercial-only alternative include uses that are commercial or service in nature (e.g., banks, barbershops, department stores, laundries and laundromats, restaurants and other eating establishments, retail sales, variety stores). This alternative is evaluated to determine if impacts associated with biological and natural resources, cultural and paleontological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic are reduced.

Alternative 2 would allow the development of commercial retail uses, such as shopping centers, supermarkets, and convenience markets with gas station pumps. According to the Institute of Transportation Engineers (ITE), shopping centers generate 42.94 daily trips per 1,000 square feet, supermarkets generate 102.94 trips per 1,000 square feet, and a convenience market with gas station pumps can generate 845.60 daily trips per 1,000 square feet. So a shopping center with a minimum of 30,000 square feet, a supermarket that is 11,000 square feet or more, and a convenience market that is 2,000 square feet or more would each individually generate more trips per day than the proposed project. If combined, these uses would create significantly more trips per day than the proposed project.

ES4 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

The City of Wildomar was identified as the lead agency for the proposed project. In accordance with CEQA Guidelines Section 15082, the City of Wildomar prepared and distributed a Notice of Preparation (NOP) for the proposed project that was circulated for public review on January 26, 2015. Concerns raised in response to the NOP were considered during the preparation of the EIR. A copy of each letter is provided in **Appendix 1.0** of this DEIR. Section 1.0, Introduction, provides a summary of issues and areas of concern related to the proposed project, as presented to the City by agencies and the public during the NOP review period. The complete text of the NOP and the NOP comments are included in **Appendix 1.0**.

ES5 SUMMARY OF ENVIRONMENTAL IMPACTS

Table ES-1 displays a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In **Table ES-1**, the level of significance for each impact is indicated both before and after the implementation of mitigation measures. For detailed discussions of all mitigation measures that would provide mitigation for each type of environmental impact addressed in this Draft EIR, refer to the appropriate environmental topic section (i.e., Sections 3.1 through 3.13).

The project proposes development on ±20 acres of land. This development, in combination with long-term, region-wide growth and development, has the potential to generate environmental impacts in a number of areas, including direct construction impacts on biological, cultural, and geological resources and hydrology and water quality, as well as indirect impacts associated with use of this built environment on areas such as aesthetics, noise, and transportation.

Of the potential environmental impacts discussed in Section 3.0 of the DEIR, Impact 3.11.2 from Chapter 3.11 – Traffic and Circulation is considered significant and unavoidable. CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance.

ES6 AREAS OF NO IMPACT

Certain impact categories are not included in **Table ES-1** because the City of Wildomar determined that the proposed project could not result in an impact in these environmental areas. Impacts not included in **Table ES-1** include:

- **Agricultural and Forest Resources** – The project site is zoned R-R (Rural Residential) and does not contain any active farmland or forestland, nor does it support trees that could be commercially harvested. These conditions preclude the possibility of the proposed project converting forestland to non-forest use. No impacts would occur.
- **Mineral Resources** – The proposed project is located in an area designated as MRZ-3 by the Wildomar General Plan (2008). The MRZ-3 zone includes areas where the available geologic information indicates that while mineral deposits are likely to exist, the significance of the deposit is undetermined. Neither the Preliminary Geotechnical and Fault Rupture Hazard Investigation prepared for the project site by Geocon West, Inc. (2014; **Appendix 3.6**) nor the Phase I Environmental Site Assessment prepared by Hillmann Consulting (2012; **Appendix 3.7**) revealed any significant potential for mineral resources on the site. There are no known locally important mineral resource recovery sites identified on the project site in the Wildomar General Plan or in a specific plan or other land use plan of value to the region or to the residents of the state. Therefore, no impacts would occur to mineral resources.

**TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<i>Aesthetics and Visual Resources</i>			
Impact 3.1.1 The proposed project will have no impact on any scenic vista.	NI	None required.	NI
Impact 3.1.2 While the proposed project will result in changes to the existing visual character of the project site, these changes will not lead to a significant degradation of the existing visual character of the area.	LS	None required.	LS
Impact 3.1.3 The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LS	None required.	LS
Impact 3.1.4 Implementation of the proposed project, in combination with the existing adjacent residences and Interstate 15, would result in a less than cumulatively considerable contribution to any scenic resources and/or the alteration of the visual character and light and glare in the region.	LCC	None required.	LCC
<i>Air Quality</i>			
Impact 3.2.1 Construction-generated emissions would not contribute substantially to an existing or projected air quality violation.	PS	MM 3.2.1a Only “zero-volatile organic compounds” paints (no more than 150 grams per liter of VOC) and/or high pressure low volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used. <i>Timing/Implementation: During construction</i> <i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i>	LS

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
 PS – Potentially Significant LCC – Less than Cumulatively Considerable CCU – Cumulatively Considerable and Unavoidable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>MM 3.2.1b All rubber-tired dozers and scrapers during the grading phase of construction shall be California Air Resources Board (CARB) Tier 2 Certified or better.</p> <p><i>Timing/Implementation: During the grading phase of construction</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p>	
<p>Impact 3.2.2 The proposed project will not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards for ozone and coarse and fine particulate matter.</p>	LS	None required.	LS
<p>Impact 3.2.3 Land use activities associated with the proposed project would not conflict with or obstruct implementation of regional air quality management planning.</p>	LS	None required.	LS
<p>Impact 3.2.4 The proposed project will not contribute to localized concentrations of carbon monoxide that would exceed applicable ambient air quality standards.</p>	LS	None required.	LS
<p>Impact 3.2.5 The proposed project would not result in exposure of sensitive receptors to substantial toxic emissions.</p>	LS	None required.	LS
<p>Impact 3.2.6 Development of the proposed project would not result in exposure of sensitive receptors to substantial odorous emissions.</p>	LS	None required.	LS
<p>Impact 3.2.7 Construction of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in the South Coast Air Basin, would not significantly</p>	LCC	None required.	LCC

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
 PS – Potentially Significant LCC – Less than Cumulatively Considerable CCU – Cumulatively Considerable and Unavoidable

ES EXECUTIVE SUMMARY

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
contribute to cumulative increases in emissions of criteria air pollutants that could contribute to future concentrations of pollutants for which the region is currently designated nonattainment.			
Biological and Natural Resources			
<p>Impact 3.3.1 Implementation of project-related activities could result in substantial adverse effects, either directly or through habitat modifications, to special-status species.</p>	PS	<p>MM 3.3.1a Per MSHCP Species-Specific Objective 6, preconstruction presence/absence surveys for burrowing owl within the project site, where suitable habitat is present, will be conducted for all covered activities through the life of the building permit. Surveys will be conducted within 30 days prior to disturbance. Take of active nests will be avoided. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed.</p> <p>Surveys shall be completed for occupied burrowing owl burrows within all construction areas and within 500 feet (150 meters) of the project work areas (where possible and appropriate based on habitat). All occupied burrows will be mapped on an aerial photo.</p> <p><i>Timing/Implementation: Within 30 days prior to any vegetation removal or ground-disturbing activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Planning and Public Works Departments</i></p> <p>MM 3.3.1b If burrowing owls are found to be present on-site, the project applicant shall develop a conservation strategy in cooperation with the CDFW, the USFWS, and the Regional Conservation Authority in accordance with the CDFW's (2012) <i>Staff Report on Burrowing Owl Mitigation</i>.</p>	LS

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
 PS – Potentially Significant LCC – Less than Cumulatively Considerable CCU – Cumulatively Considerable and Unavoidable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p><i>Timing/Implementation:</i> Prior to any vegetation removal or ground-disturbing activities</p> <p><i>Enforcement/Monitoring:</i> City of Wildomar Planning and Public Works Departments</p> <p>MM 3.3.1c If clearing and/or construction activities will occur during the migratory bird nesting season (February 15 through August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 3 days prior to construction initiation. Preconstruction surveys must be performed by a qualified biologist for the purpose of determining the presence/absence of active nest sites within the proposed impact area and a 200-foot setback. If no active nests are found, no further mitigation is required. If construction is delayed or suspended for more than 14 days after the survey, the area shall be resurveyed.</p> <p>If active nest sites are identified within 200 feet of project activities, the City shall impose an exclusionary setback for all active nest sites prior to commencement of any project-related activities to avoid maintenance- or access-related disturbances to nesting migratory birds. A setback constitutes an area where project-related activities (i.e., vegetation removal and earth moving) shall not occur, and shall be imposed within 100 feet of any active nest sites until the nest is deemed inactive by a qualified biologist. Activities permitted within the setback and the size (i.e., 100 feet) of setbacks may be adjusted through consultation with the CDFW.</p> <p><i>Timing/Implementation:</i> Prior to construction</p>	

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
 PS – Potentially Significant LCC – Less than Cumulatively Considerable CCU – Cumulatively Considerable and Unavoidable

ES EXECUTIVE SUMMARY

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<i>Enforcement/Monitoring: City of Wildomar Planning and Public Works Department</i>	
<p>Impact 3.3.2 Implementation of the proposed project could result in impacts to sensitive biological communities, riparian habitat, and/or federally protected wetlands.</p>	PS	<p>MM 3.3.2 Prior to the issuance of any grading permits, the project applicant shall obtain a Clean Water Act Section 404 permit from the US Army Corps of Engineers, a Clean Water Act Section 401 permit from the Regional Water Quality Control Board, and a Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the California Department of Fish and Wildlife for impacts to jurisdictional features. The following shall be incorporated into the permitting, subject to approval by the regulatory agencies:</p> <ol style="list-style-type: none"> 1. Off-site replacement and/or restoration of USACE/RWQCB jurisdictional waters of the United States/waters of the State within the Santa Margarita watershed at a ratio no less than 1:1 or within an adjacent watershed at a ratio no less than 2:1 for permanent impacts and for any temporary impacts to restore the impact area to pre-project conditions (i.e., pre-project contours and revegetate where applicable). Off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank. 2. Off-site replacement and/or replacement of CDFW jurisdictional streambed and associated riparian habitat within the Santa Margarita watershed at a ratio no less than 1:1 or within an adjacent watershed at a 	LS

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		<p>ratio no less than 2:1 for permanent impacts and for any temporary impacts to restore the impact area to pre-project conditions (i.e., pre-project contours and revegetate where applicable). Off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank.</p> <p>Purchase of mitigation credits through an agency-approved mitigation bank or in-lieu fee program shall occur prior to any impacts to jurisdictional drainages. Mitigation proposed on land acquired for the purpose of in-perpetuity mitigation that is not part of an agency-approved mitigation bank or in-lieu fee program shall include the preservation, creation, restoration, and/or enhancement of similar habitat pursuant to a Habitat Mitigation and Monitoring Plan. The plan shall be prepared prior to any impacts to jurisdictional features and shall provide details as to the implementation of the mitigation, maintenance, and future monitoring. The goal of the mitigation shall be to preserve, create, restore, and/or enhance similar habitat with equal or greater function and value than the impacted habitat.</p> <p><i>Timing/Implementation:</i> Prior to project vegetation removal or ground-disturbing activities</p> <p><i>Enforcement/Monitoring:</i> City of Wildomar Planning and Public Works Departments</p>	

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Impact 3.3.3 Implementation of the proposed project could interfere with the movement of native resident or migratory fish or wildlife species.	LS	None required.	LS
Impact 3.3.4 Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources.	NI	None required.	NI
Impact 3.3.5 Implementation of the proposed project could conflict with the provisions of the Western Riverside County MSHCP.	PS	Implement mitigation measures MM 3.3.1a and MM 3.3.1b .	LS
Impact 3.3.6 Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in the immediate area of the proposed project, will result in the conversion of habitat and impact biological resources.	LCC	Implement mitigation measures MM 3.3.1a , MM 3.3.1b , MM 3.3.1c , and MM 3.3.2 .	LCC
<i>Climate Change and Greenhouse Gases</i>			
Impact 3.4.1 Implementation of the proposed project will result in greenhouse gas emissions that would not contribute to significant impacts on the environment.	LCC	None required.	LCC
Impact 3.4.2 Implementation of the proposed project could conflict with an applicable plan adopted for the purpose of reducing the emissions of greenhouse gases.	LCC	None required.	LCC
<i>Cultural and Paleontological Resources</i>			
Impact 3.5.1 Implementation of the proposed project could result in a substantial adverse change in the significance of a known historical resource.	PS	MM 3.5.1 An archaeological monitor must be present during any earth-moving activities proposed within the subject property. The monitor shall work under the direct supervision of a cultural resources professional who meets the Secretary of the Interior's Professional Qualification	LS

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		<p>Standards for archaeology. The monitor shall be empowered to temporarily halt or redirect construction work in the vicinity of any find until the project archaeologist can evaluate it. In the event of a new find, salvage excavation and reporting is required.</p> <p><i>Timing/Implementation: Prior to ground-disturbing construction activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p>	
<p>Impact 3.5.2 Implementation of the proposed project could result in a substantial adverse change in the significance of an archaeological resource, as well as the potential disturbance of currently undiscovered cultural resources (i.e., prehistoric archaeological sites, historical archaeological sites, and isolated artifacts and features).</p>	<p>PS</p>	<p>MM 3.5.2a If during grading or construction activities cultural resources are discovered on the project site, work shall be halted immediately within 50 feet of the discovery and the resources shall be evaluated by a qualified archeologist (retained by the applicant), the Pechanga Tribe and the Soboba Band. Any unanticipated cultural resources that are discovered shall be evaluated and a final report prepared by the qualified archeologist. The report shall include a list of the resources discovered, documentation of each site/locality, and interpretation of the resources identified, and the method of preservation and/or recovery for identified resources. In the event the significant resources are recovered and if the qualified archaeologist, the Tribe, and/or the Band determines the resources to be historic or unique, avoidance and/or mitigation would be required pursuant to and consistent with CEQA Guidelines Sections 15064.5 and 15126.4 and Public Resources Code Section 21083.2 and the Cultural Resources Treatment and Monitoring Agreement required by mitigation measure MM 3.5.2b.</p>	<p>LS</p>

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		<p><i>Timing/Implementation: Prior to ground-disturbing construction activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Building and Planning Departments</i></p> <p>MM 3.5.2b At least 30 days prior to the issuance of a grading permit, the project applicant shall contact both the Pechanga Tribe and the Soboba Band to notify them of grading, excavation, and the monitoring program and to coordinate with the City of Wildomar, the Tribe, and the Band to develop a Cultural Resources Treatment and Monitoring Agreement. The agreement shall include, but not be limited to, outlining provisions and requirements for addressing the treatment of cultural resources; project grading and development scheduling; terms of compensation for the monitors; treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site; and establishing on-site monitoring provisions and/or requirements for professional Tribal/Band monitors during all ground-disturbing activities. A copy of this signed agreement shall be provided to the Planning Director and Building Official prior to the issuance of the first grading permit.</p> <p><i>Timing/Implementation: Prior to the issuance of a grading permit</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Department</i></p>	
<p>Impact 3.5.3 Implementation of the proposed project could directly or indirectly destroy a unique paleontological resource or site.</p>	PS	<p>MM 3.5.3a The project applicant shall retain a qualified paleontologist to monitor all initial ground-disturbing activities in native soils or sediments. If the paleontologist, upon observing initial</p>	LS

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		<p>earthwork, determines there is low potential for discovery, no further action shall be required and the paleontologist shall submit a memo to the City confirming findings of low potential.</p> <p>Should any paleontological resources (i.e., fossils) be uncovered during project construction activities, all work within a 100-foot radius of the discovery site shall be halted or diverted to other areas on the site and the City shall be immediately notified. A qualified paleontologist shall evaluate the finds and recommend appropriate next steps to ensure that the resource is not substantially adversely impacted, including but not limited to avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Further ground disturbance shall not resume within a 100-foot radius of the discovery site until an agreement has been reached between the project applicant, a qualified paleontologist, and the City as to the appropriate preservation or mitigation measures to ensure that the resource is not substantially adversely impacted</p> <p><i>Timing/Implementation: Prior to, and during ground-disturbing construction activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p> <p>MM 3.5.3b A qualified paleontologist or paleontological monitor (retained by the applicant) shall monitor all mass grading and excavation activities. Monitoring will be conducted in areas of grading or excavation in undisturbed formational sediments, as well as where over-excavation of surficial alluvial sediments will</p>	

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		<p>encounter these formations in the subsurface. Paleontological monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediment that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined on exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources.</p> <p><i>Timing/Implementation: During ground-disturbing construction activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p> <p>MM 3.5.3c Any recovered paleontological specimens shall be identified to the lowest taxonomic level possible and prepared for permanent preservation. Screen-washing of sediments to recover small invertebrates and vertebrates shall occur if necessary.</p> <p><i>Timing/Implementation: During ground-disturbing construction activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p> <p>MM 3.5.3d Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage shall occur at an institutional repository</p>	

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		<p>approved by the City of Wildomar. The paleontological program shall include a written repository agreement prior to the initiation of mitigation activities.</p> <p><i>Timing/Implementation: Agreement prior to ground-disturbing construction activities and curation prior to occupancy</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p> <p>MM 3.5.3e A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location. The report, when submitted to and accepted by the City of Wildomar, shall signify satisfactory completion of the project program to mitigate impacts to any potential nonrenewable paleontological resources (i.e., fossils) that might have been lost or otherwise adversely affected without such a program in place.</p> <p><i>Timing/Implementation: Following ground-disturbing activities and prior to occupancy</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p>	
<p>Impact 3.5.4 No human remains have been identified within the project site; however, implementation of the proposed project could result in the inadvertent disturbance of currently undiscovered human remains. Any discovery of human remains would trigger state law governing the treatment of human remains.</p>	<p>PS</p>	<p>MM 3.5.4a If human remains are encountered, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the 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</p>	<p>LS</p>

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		<p>County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the NAHC shall identify the most likely descendant within 24 hours of receiving notification from the coroner. The most likely descendant shall then have 48 hours to make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.</p> <p><i>Timing/Implementation: During ground-disturbing construction activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p> <p>MM 3.5.4b All cultural materials, with the exception of sacred items, burial goods, and human remains, which will be addressed in the Cultural Resources Treatment and Monitoring Agreement required by mitigation measure MM 3.5.2b, collected during the grading monitoring program and from any previous archeological studies or excavations on the project site shall be curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to the Pechanga Tribe’s curation facility or the Soboba Band, whichever is appropriate, which meets the standards set forth in 36 Code of Federal Regulations (CFR) Part 79 for federal repositories.</p> <p><i>Timing/Implementation: During ground-disturbing construction activities</i></p>	

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		<p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p> <p>MM 3.5.4c All sacred sites, should they be encountered within the project site, shall be avoided and preserved as the preferred mitigation, if feasible as determined by a qualified professional in consultation with both the Pechanga Tribe and the Soboba Band. To the extent that a sacred site cannot be feasibly preserved in place or left in an undisturbed state, mitigation measures shall be required pursuant to and consistent with Public Resources Code Section 21083.2 and CEQA Guidelines Sections 15064.5 and 15126.4.</p> <p><i>Timing/Implementation: During ground-disturbing construction activities</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p>	
<p>Impact 3.5.5 Implementation of the proposed project, along with any foreseeable development in the project vicinity, could result in cumulative impacts to cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features).</p>	LCC	None required.	LCC
Geology and Soils			
<p>Impact 3.6.1 The potential for the project site to be exposed to hazards associated with fault rupture is considered unlikely.</p>	LS	None required.	LS
<p>Impact 3.6.2 The project site is located in an area that may be subject to strong seismic ground shaking. The proposed project would be designed in accordance with development requirements of the California Building Standards Code as well as the geotechnical study.</p>	PS	<p>MM 3.6.2 The project applicant shall incorporate the recommendations of the preliminary geotechnical and fault rupture hazard investigation conducted by Geocon (2014; Appendix 3.6) into project plans. The project's building plans shall demonstrate that they</p>	LS

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		incorporate all applicable recommendations of the geotechnical study and comply with all applicable requirements of the latest adopted version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering, structural foundations, and installation. All on-site soil engineering activities shall be conducted under the supervision of a licensed geotechnical engineer or certified engineering geologist. <i>Timing/Implementation: Prior to construction activities</i> <i>Enforcement/Monitoring: City of Wildomar Building and Planning Departments</i>	
Impact 3.6.3 The project site does not include on-site soils that may be subject to seismic-related ground failure, including liquefaction and landslide. However, engineered fill can change the composition of the underlying substrate.	PS	Implement mitigation measure MM 3.6.2 ; no additional mitigation required.	LS
Impact 3.6.4 The proposed project could result in substantial soil erosion or the loss of topsoil.	PS	Implement mitigation measure MM 3.6.2 , plus: MM 3.6.4 At a minimum, all existing artificial fill, alluvium, and colluvium shall be excavated and properly compacted for foundation and slab support. Where Pauba sandstone is present at the ground surface, excavation on the order of 1 foot is anticipated. Where undocumented fill, alluvium, and colluvium are present, removals of up to approximately 12 feet should be anticipated. It is anticipated that deeper excavation of up to 12 feet will be required along the sides of the drainage channels. In addition, the fault trenches excavated as a part of the site investigation were loosely backfilled without testing and observation and will require re-	LS

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		<p>excavation and compaction. See the geologic map (Geocon 2014; Appendix 3.6) for locations of the fault trenches and the trench logs in the study's Appendix C for trench depths (Appendix 3.6). Deeper excavations shall be conducted as necessary to completely remove all existing undocumented fill and unsuitable alluvium and colluvium. The anticipated depths of remedial grading are indicated adjacent to trenches, borings, and test pits located on the geologic map, Figure 2 of the geotechnical study (Geocon 2014).</p> <p><i>Timing/Implementation: During construction</i> <i>Enforcement/Monitoring: City of Wildomar City Public Works and Building Departments</i></p>	
<p>Impact 3.6.5 The proposed project could 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.</p>	PS	Implement mitigation measures MM 3.6.2 and MM 3.6.4 .	LS
<p>Impact 3.6.6 Soils testing indicates that the soils on the proposed project site are non-expansive. However, import soils or soils used near finish grade may have a different expansion index than what was tested.</p>	PS	<p>MM 3.6.6a To prevent foundation damage associated with potentially expansive soils, concrete slabs shall be designed to minimize cracking as a result of shrinkage and joints (isolation, contraction, and construction) and be placed in accordance with the American Concrete Institute guidelines. All concrete proportioning, placement, and curing shall be performed in accordance with American Concrete Institute recommendations and procedures. Slab-on-grade reinforcement and thickness shall be provided by the structural engineer based on final expansion testing at completion of grading.</p>	LS

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		<p><i>Timing/Implementation: After site grading and during construction</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p> <p>MM 3.6.6b All exterior concrete slabs cast on finish subgrade (patios, sidewalks, etc., with the exception of portland cement concrete pavement) shall be a minimum of 4 inches nominal in thickness. Reinforcement in the slabs and the use of a compacted sand or gravel base beneath the slabs shall be according to the current local standards. Subgrade soils shall be moisture conditioned to at least optimum moisture content to a depth of 12 inches immediately before placing the concrete.</p> <p><i>Timing/Implementation: During construction</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments</i></p>	
<p>Impact 3.6.7 Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in Wildomar and nearby areas of Riverside County, would not contribute to cumulative geologic and soils impacts.</p>	LCC	None required.	LCC
Hazards and Hazardous Materials			
<p>Impact 3.7.1 Implementation of the proposed project would require limited amounts of commonly used hazardous materials, including solvents, paints, gasoline, fertilizers, and pesticides, during project construction and operation.</p>	LS	None required.	LS
<p>Impact 3.7.2 Minor nuisance dumping could result in the accidental release of hazardous materials into the environment.</p>	PS	<p>MM 3.7.2 The project applicant shall remove the trash and debris observed on-site and take it to a landfill or approved dumpsite.</p>	LS

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		<i>Timing/Implementation: Prior to and during construction activities</i> <i>Enforcement/Monitoring: City of Wildomar Building and Planning Departments</i>	
Impact 3.7.3 The proposed project would not pose a risk to nearby schools or proposed school facilities.	NI	None required.	NI
Impact 3.7.4 The project is not located on a site included on a list of hazardous materials sites pursuant to Government Code Section 65962.5.	NI	None required.	NI
Impact 3.7.5 The proposed project site would not physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	None required.	LS
Impact 3.7.6 The proposed project would not expose people or structures to risks associated with wildland fires.	LS	None required.	LS
Impact 3.7.7 Implementation of the proposed project in addition to cumulative development in the surrounding region would not result in cumulative hazardous risk impacts.	LCC	None required.	LCC
Hydrology and Water Quality			
Impact 3.8.1 Construction and operation of the proposed project could result in erosion or a degradation of downstream surface water and groundwater resources.	PS	MM 3.8.1 Prior to the approval of the grading permit for future development on the project site, the project applicant shall be required to prepare a stormwater pollution prevention plan (SWPPP) consistent with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ), which is to be administered through all phases of grading and project construction. The SWPPP shall incorporate best management practices (BMPs)	LS

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		<p>to ensure that potential water quality impacts during construction phases are minimized. The SWPPP shall be submitted to the California State Water Resources Control Board and to the City of Wildomar for review. A copy of the SWPPP must be kept accessible on the project site at all times. In addition, the project applicant will be required to submit, and obtain City approval of, a water quality management plan prior to the issuance of any building or grading permit for future development on the project site in order to comply with the Area-wide Urban Runoff Management Program. The project shall implement site design BMPs, source control BMPs, and treatment control BMPs as identified in the water quality management plan. Site design BMPs shall include, but are not limited to, landscape buffer areas, on-site ponding areas, roof and paved area runoff directed to vegetated areas, and vegetated swales. Source control BMPs shall include, but are not limited to, education, landscape maintenance, litter control, parking lot sweeping, irrigation design to prevent overspray, and covered trash storage. Treatment control BMPs shall include vegetated swales and a detention basin or an infiltration device. The project will be responsible for maintenance of the basins.</p> <p><i>Timing/Implementation: Prior to the issuance of a grading permit</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Engineering Department</i></p>	

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<p>Impact 3.8.2 Development of the proposed project will alter the existing drainage pattern of the site and may impact stormwater runoff rates and volumes compared to existing conditions.</p>	LS	None required.	LS
<p>Impact 3.8.3 The proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in the Santa Margarita River watershed, could alter drainage conditions, rates, volumes, and water quality, which could result in potential erosion, flooding, and water quality impacts within the overall watershed.</p>	LCC	None required.	LCC
Noise			
<p>Impact 3.9.1 The proposed project may expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or of applicable standards of other agencies.</p>	PS	<p>MM 3.9.1 The project applicant shall provide a “windows closed” condition, requiring a means of mechanical ventilation for all units facing Elizabeth Lane and Prielipp Road. To ensure that the City of Wildomar’s 45 dBA CNEL interior noise level is met, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • Windows: All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum STC of 27. • Doors: All exterior doors shall be well weather-stripped solid core assemblies at least 1.75 inches thick. • Roof: Roof sheathing of wood construction shall be well fitted or caulked plywood of at least 0.5 inches thick. Ceilings shall be well fitted, well sealed gypsum board of at least 0.5 inches thick. Insulation with at least a rating of R-19 shall be used in the attic space. 	LS

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		<ul style="list-style-type: none"> Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g., air conditioning) shall be provided which satisfies the requirements of the Uniform Mechanical Code. <p><i>Timing/Implementation: Prior to a certificate of occupancy (as part of building permit requirements)</i></p> <p><i>Enforcement/Monitoring: City of Wildomar Planning and Building Departments</i></p>	
Impact 3.9.2 Implementation of the proposed project may expose persons to or generate minimal, short-duration groundborne vibration or groundborne noise levels.	LS	None required.	LS
Impact 3.9.3 Completion of the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity.	LS	None required.	LS
Impact 3.9.4 Construction of the proposed project may result in a temporary increase in ambient noise levels in the project vicinity.	LS	None required.	LS
Impact 3.9.5 Implementation of the proposed project will not result in a substantial contribution to cumulative noise levels.	LCC	None required.	LCC
Public Services, Utilities, and Recreation			
Impact 3.10.1.1 Implementation of the proposed project will result in the need for additional fire protection and emergency services in order to maintain acceptable service levels.	LS	None required.	LS

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<p>Impact 3.10.1.2 While implementation of the proposed project will result in the need for additional water supply, this additional need will not be sufficient to require the creation of additional water supply infrastructure. Implementation of the proposed project may result in additional need for water supply and infrastructure to provide adequate fire flows for fire protection. The provision of these facilities could cause environmental impacts.</p>	LS	None required.	LS
<p>Impact 3.10.1.3 Implementation of the proposed project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the immediate area, may increase the demand for fire protection and emergency medical services. However, given the requirement for CEQA review of future development, any necessary infrastructure or facilities expansion will be reviewed for potential impacts.</p>	LCC	None required.	LCC
<p>Impact 3.10.2.1 Implementation of the proposed project will not result in a significant increased demand for law enforcement services and will not result in the need for new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts.</p>	LS	None required.	LS
<p>Impact 3.10.2.2 Implementation of the proposed project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the RCSD service area, would increase the demand for law enforcement services.</p>	LCC	None required.	LCC

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Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.10.3.1 The proposed project will result in slightly increased enrollment in the local school district.	LS	None required.	LS
Impact 3.10.3.2 The proposed project will result in a slight increase in population and will result in population growth when developed in conjunction with other existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting.	LS	None required.	LCC
Impact 3.10.4.1 Implementation of the proposed project will slightly increase demand for water supply, which could result in effects on the physical environment. However, adequate water supply sources exist, and the proposed project's and the Elsinore Valley Municipal Water District's water conservation provisions would ensure adequate water service.	LS	None required.	LS
Impact 3.10.4.2 Implementation of the proposed project would increase demand for water supply and thus require additional water supply infrastructure that could result in a physical impact to the environment.	LS	None required.	LS
Impact 3.10.4.3 Implementation of the proposed project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting, would increase the cumulative demand for water supplies. However, this increased demand will not be sufficient to lead to a requirement for new water facilities and related infrastructure.	LCC	None required.	LCC
Impact 3.10.5.1 Implementation of the proposed project will not result in wastewater discharge that would exceed the wastewater treatment requirements of the	LS	None required.	LS

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
 PS – Potentially Significant LCC – Less than Cumulatively Considerable CCU – Cumulatively Considerable and Unavoidable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
San Diego Regional Water Quality Control Board.			
Impact 3.10.5.2 Implementation of the proposed project, along with other existing, planned, proposed, approved, and reasonably foreseeable development within the cumulative setting, would contribute to the cumulative demand for wastewater service. However, continued implementation of EVMWD standards would ensure adequate wastewater facilities are provided.	LCC	None required.	LCC
Impact 3.10.6.1 While implementation of the proposed project will generate increased amounts of solid waste that will need to be disposed of in landfills or recycled, the proposed project is consistent with the current land use of the project site allowing for anticipation of the increased waste generation.	LS	None required.	LS
Impact 3.10.6.2 The proposed project would not fail to comply with federal, state, and local statutes and regulations related to solid waste.	LS	None required.	LS
Impact 3.10.6.3 Implementation of the proposed project, along with other existing, planned, proposed, approved, and reasonably foreseeable development in the region, would result in increased demand for solid waste services.	LCC	None required.	LCC
Impact 3.10.7.1 Implementation of the proposed project would result in a population increase of approximately 449 residents and would increase demand for city parks and recreation facilities.	LS	None required.	LS
Impact 3.10.7.2 Implementation of the proposed project, along with other existing, planned, proposed,	LCC	None required.	LCC

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ES EXECUTIVE SUMMARY

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
approved, and reasonably foreseeable development, would increase the use of existing parks and would require additional park and recreation facilities within the cumulative setting, the provision of which could have an adverse physical effect on the environment.			
Traffic and Circulation			
Impact 3.11.1 The proposed project would result in an increase in traffic under the Existing Plus Project scenario that is substantial in relation to the existing traffic load and capacity of the street system or exceeds an established level of service standard (i.e., results in a substantial increase in either the volume-to-capacity ratio and/or the level of service at intersections).	LS	None required.	LS
Impact 3.11.2 The proposed project would result in an increase in traffic under the Opening Year (2017) With Project scenario that is substantial in relation to the existing traffic load and capacity of the street system or exceeds an established level of service standard (i.e., result in a substantial increase in either the volume-to-capacity ratio and/or the level of service at intersections).	SU	MM 3.11.2 The project applicant shall be required to construct or pay its fair share of the following traffic improvements: Salida Del Sol/Yamas Drive/Clinton Keith Road (#4) <ul style="list-style-type: none"> • Install a traffic signal • Construct a northbound left turn lane • Construct a northbound shared through-right turn lane • Construct a southbound left turn lane Elizabeth Lane/Clinton Keith Road (#6) <ul style="list-style-type: none"> • Install a traffic signal • Construct a northbound left turn lane • Restripe the southbound approach to provide one left turn lane and one shared through-right turn lane 	SU

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Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>The effectiveness of implementation of these transportation improvement strategies is shown in Table 3.11-11 (Section 3.11, Traffic and Circulation). As shown in Table 3.11-11, implementation of the proposed mitigation measures will ensure that all intersections operate at an acceptable level of service under the Opening Year (2017) With Project Conditions scenario.</p> <p>However, the City does not have the authority to implement TUMF funded program improvements independent of the Riverside County Transportation Commission and cannot be certain that the other projects shown in Table 4-3 of the TIA (Appendix 3.11) will be built and will pay to address their impacts at the intersections addressed in MM 3.11.2. Without certain funding, the City cannot guarantee that the proposed improvements will be constructed as proposed by mitigation measure MM 3.11.2.</p> <p>Because the City cannot be certain that the improvements will occur, the EIR must assume that the improvements may not occur and that the project impacts would remain as shown in Table 3.11-10. As shown in Table 3.11-10, the intersection analysis for opening year 2017 would result in significant impacts at George Avenue/Clinton Keith Road (Intersection #1); Inland Valley Drive/Clinton Keith Road (Intersection #2); Salida Del Sol/Clinton Keith Road (Intersection #4); and Elizabeth Lane/Clinton Keith Road (Intersection #6). While the City will collect fees representing the proportionate share of the proposed project's impact at the intersections identified in</p>	

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ES EXECUTIVE SUMMARY

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		mitigation measure MM 3.11.2 , for these reasons, this impact remains significant and unavoidable .	
Impact 3.11.3 Implementation of the proposed project will not result in increased hazards due to a design feature or incompatible uses.	LS	None required.	LS
Impact 3.11.4 Implementation of the proposed project could result in temporary blockages of Prielipp Road and Elizabeth Lane and other roadways, causing an impact to emergency access.	PS	MM 3.11.4 The project applicant shall prepare and implement a traffic management plan (TMP) to minimize inconveniences during construction. Included among the provisions, the contractor shall coordinate with the City of Wildomar, Riverside County, and local police, fire, and emergency medical service providers regarding construction scheduling and any other practical measures to maintain adequate access to properties and response times. The TMP may also limit construction activity that would impact traffic flow along Prielipp Road and Elizabeth Lane to occur outside of the typical weekday morning (7:00 AM to 9:00 AM) and weekday evening (4:00 PM to 6:00 PM) peak hours. The TMP shall include contact information for the public who may have questions concerning the project and access to their property. Two-way traffic through the construction zone shall be maintained throughout the construction period. <i>Timing/Implementation: Prior to and during construction</i> <i>Enforcement/Monitoring: City of Wildomar Public Works and Planning Departments</i>	LS
Impact 3.11.5 Implementation of the proposed project will not conflict with adopted policies, plans, or programs supporting alternative transportation.	LS	None required.	LS

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 PS – Potentially Significant LCC – Less than Cumulatively Considerable CCU – Cumulatively Considerable and Unavoidable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.11.6 When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed project would contribute to cumulative traffic volumes in the region that result in significant impacts to level of service and operations. However, with the payment of offsite improvement fees this is considered a less than cumulatively considerable impact.	LCC	None required.	LCC
Population and Housing			
Impact 3.12.1 The project would not 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).	LS	None required.	LS
Impact 3.12.2 The project would not displace substantial numbers of existing housing and would not necessitate the construction of replacement housing elsewhere.	NI	None required.	NI
Impact 3.12.3 The project would not displace substantial numbers of people or necessitate the construction of replacement housing elsewhere.	NI	None required.	NI
Impact 3.12.4 The proposed project, in combination with other existing, approved, proposed, and reasonably foreseeable development in Wildomar and the region, could result in substantial growth inducement.	LCC	None required.	LCC
Land Use			
Impact 3.13.1 Implementation of the proposed project would not physically divide an established community.	NI	None required.	NI

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ES EXECUTIVE SUMMARY

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.13.2 Implementation of the proposed project would not result in inconsistencies with adopted plans and policies intended to avoid or mitigate physical environmental effects.	LS	None required.	LS
Impact 3.13.3 The project would introduce growth in an area that is currently undeveloped and could encourage growth on lands in the city.	LCC	None required.	LCC

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
 PS – Potentially Significant LCC – Less than Cumulatively Considerable CCU – Cumulatively Considerable and Unavoidable

REFERENCES

Geocon West, Inc. 2014. *Preliminary Geotechnical and Fault Rupture Hazard Investigation, APN 380-250-023, NW of Prielipp Rd. & Elizabeth Ln., Wildomar, California.*

Hillman Consulting. 2012. *Phase I Environmental Site Assessment.*

Wildomar, City of. 2008. *City of Wildomar General Plan.*

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1.0 – INTRODUCTION

1.1 PURPOSE OF THE EIR

This Environmental Impact Report (EIR) was prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA). An environmental impact report (EIR) is described in CEQA Guidelines Section 15121(a) as a “public informational document that analyzes the environmental effects of a project, identifies ways to minimize the significant impacts, and describes reasonable alternatives to the project.” CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. Therefore, pursuant to CEQA, the City of Wildomar (City), as the lead agency, has prepared this EIR to provide the public and responsible and trustee agencies, as relevant, with information about the potential environmental effects of the Horizons Development Project (proposed project; project).

A “project” refers to the whole of an action that has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the City has determined that adoption and implementation of the proposed Horizons Development Project is a project within the CEQA definition.

PROJECT SUMMARY

The proposed project is located in Wildomar, Riverside County, California (see **Figure 2.0-1**). The project includes a General Plan Amendment, rezoning, tentative tract map, and plot plan approval for a residential and senior living facility on approximately 20 acres. The residential portion of the project includes 138 two-story townhomes on approximately 12 acres. The residential area also includes a recreation building and 350 parking spaces. The proposed senior living facility comprises 86 units with 86 parking spaces on 6.0 acres. In addition to the residential development, the project also includes the extension of Elizabeth Lane along the eastern boundary of the project site and a 2-acre open space area along the western boundary. Within the proposed project site is a 1.5-acre retention basin and a 1-acre open space area that preserves an existing drainage.

1.2 KNOWN TRUSTEE AND RESPONSIBLE AGENCIES

The term “trustee agency” means a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. In CEQA, the term “responsible agency” includes all public agencies other than the lead agency that may have discretionary actions associated with the proposed project. The following agencies have been identified as potential responsible or trustee agencies:

- California Department of Fish and Wildlife, Region 6 (CDFW)
- California Department of Transportation, District 8 (Caltrans)
- San Diego Regional Water Quality Control Board, Region 9 (SDRWQCB)
- Lake Elsinore Unified School District (LEUSD)
- Elsinore Valley Municipal Water District (EVMWD)
- Riverside County Flood Control and Water Conservation District (RCFCWCD)
- South Coast Air Quality Management District (SCAQMD)

1.0 INTRODUCTION

1.3 TYPE OF DOCUMENT

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a project EIR pursuant to CEQA Guidelines Section 15161. The analysis associated with a project EIR focuses on the changes in the environment that would occur as a result of project implementation and examines all phases of the project (i.e., planning, construction, and operation).

1.4 INTENDED USE OF THE EIR

This Draft EIR will be used by the City of Wildomar as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the project. These actions include, but are not limited to, approval of the following:

- General Plan Amendment (GPA): A proposed General Plan Amendment from Business Park (BP) to Commercial Retail (CR) on 7.73 net acres (southerly portion of the site) and to High Density Residential (HDR) on 10.68 net acres (northerly portion of the site) to accommodate the project.
- Change of Zone: A proposed change in the current zoning designation from R-R (Rural Residential) to C/1-C/P (General Commercial) on 7.73 acres (southerly portion) and from R-R (Rural Residential) to R-3 (General Residential) on 10.68 acres (northerly portion) to accommodate the project.
- Tentative Tract Map (TTM 36672): A tentative tract map for condominium purposes to subdivide the 20-acre site into three parcels to accommodate the proposed project.
- Plot Plan: A proposed plot plan for the 20-acre project site to accommodate the proposed 86-unit senior living facility and 138-unit multi-family townhome/condominium project.
- Conditional Use Permit (CUP): A proposed CUP to allow the 86-unit senior living facility in accordance with Section 17.72.010.C of the Zoning Ordinance.

1.5 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, identification of significant irreversible environmental impacts, and growth-inducing and cumulative impacts. The environmental issues addressed in this Draft EIR were established through review of environmental documentation developed for the site, environmental documentation for nearby projects, and responses to the Notice of Preparation. Based on these comments, agency consultation, and review of the project application, the City determined the scope for this Draft EIR.

This Draft EIR is organized in the following manner:

ES – EXECUTIVE SUMMARY

This section provides a project narrative and identifies environmental impacts and mitigation measures in a summary table consistent with CEQA Guidelines Section 15123.

SECTION 1.0 – INTRODUCTION

Section 1.0 provides an introduction and overview of the project EIR.

SECTION 2.0 – PROJECT DESCRIPTION

This section provides a detailed description of the proposed project, including intended objectives, background information, and physical and technical characteristics.

SECTION 3.0 – ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Section 3.0 contains an analysis of environmental topic areas as identified below. Each subsection contains a description of the existing setting of the project area and of the regulatory environment, identifies standards of significance, and identifies project-related and cumulative impacts and recommends mitigation measures.

The major environmental topics are addressed in the following sections:

- 3.1 Aesthetics and Visual Resources
- 3.2 Air Quality
- 3.3 Biological and Natural Resources
- 3.4 Climate Change and Greenhouse Gases
- 3.5 Cultural and Paleontological Resources
- 3.6 Geology and Soils
- 3.7 Hazards and Hazardous Materials
- 3.8 Hydrology and Water Quality
- 3.9 Noise
- 3.10 Public Services, Utilities, and Recreation
- 3.11 Traffic and Circulation
- 3.12 Population and Housing
- 3.13 Land Use
- 3.14 Effects Determined Not to Be Significant

SECTION 4.0 – ALTERNATIVES

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project which could feasibly attain the basic objectives of the project and avoid and/or substantially lessen any of the significant effects of the project. This section discusses alternatives to the proposed project, including the CEQA mandatory “No Project” alternative, that are intended to avoid or reduce significant environmental impacts of the proposed project.

SECTION 5.0 – OTHER CEQA ANALYSIS

This section contains discussions and analysis of various topical issues mandated by CEQA. These topics include significant environmental effects that cannot be avoided if the project is implemented, as well as growth-inducing impacts.

1.0 INTRODUCTION

SECTION 6.0 – ABBREVIATIONS

This section defines abbreviations used throughout the EIR.

SECTION 7.0 – REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the EIR by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical material prepared to support the analysis.

1.6 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR involves the following procedural steps:

NOTICE OF PREPARATION

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) of an EIR for the project and circulated the document from January 16 through February 17, 2015. The NOP was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. A scoping meeting was held on February 9, 2015, to solicit input from interested agencies and the public. No one other than the applicant attended the scoping meeting. No comments were received at the scoping meeting.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the Draft EIR, the City will file the Notice of Completion (NOC) with the California Office of Planning and Research to begin the public review period (Public Resources Code Section 21161).

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the City will provide public notice of the availability of the Draft EIR for public review and will invite comment from the general public, agencies, organizations, and other interested parties. Public comment on the Draft EIR will be accepted in written form via common carrier or in electronic mail (e-mail) form. Public comment will also be accepted orally at a public hearing to be held at a publicly noticed date and time at Wildomar City Hall (address below). All comments or questions regarding the Draft EIR should be addressed to:

City of Wildomar
Horizons Development Project EIR
Planning Department
23873 Clinton Keith Road, Suite 201
Wildomar, CA 92595
Attention: Matthew C. Bassi, Planning Director
mbassi@cityofwildomar.org

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and contain any revisions to the Draft EIR.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City of Wildomar Planning Commission will review and consider the Final EIR and may recommend that the City Council certify the Final EIR if the Council finds the EIR adequate and complete. The rule of adequacy generally holds that the EIR can be certified if it shows a good faith effort at full disclosure of environmental information and provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences. Note that certification of the EIR does not automatically result in project approval.

Upon review and consideration of the Final EIR, the Planning Commission may take action to recommend that the City Council approve, revise, or reject the proposed project. Any decision to approve the project will be accompanied by written findings in accordance with CEQA Guidelines Section 15091. If applicable, the City Council may approve the project even with significant and unavoidable environmental impacts by adopting a statement of overriding considerations as outlined in CEQA Guidelines Section 15093.

MITIGATION MONITORING AND REPORTING PROGRAM

CEQA Section 21081.6(a) requires lead agencies to adopt a Mitigation Monitoring and Reporting Program (MMRP) to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR; however, it will be presented to the Planning Commission for adoption. Throughout the EIR, mitigation measures have been clearly identified and presented in language that will facilitate establishment of an MMRP. Any mitigation measures adopted by the City as conditions for approval of the project will be included in an MMRP to verify compliance.

1.0 INTRODUCTION

1.7 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received four comment letters on the Notice of Preparation for the proposed project. A copy of the Notice of Preparation and each comment letter is provided in **Appendix 1.0**. The comments have been taken into consideration in preparation of this DEIR.

1. Temecula Band of Luiseño Mission Indians (February 23, 2015): The Tribe asserts that the project area is part of their aboriginal territory and wants to be consulted should any culturally sensitive resources be discovered. They are opposed to any impacts related to their cultural resources and want to be involved with the environmental review to ensure its adequacy and to ensure protection of their cultural resources in the project area.
2. Caltrans (February 4, 2015): Caltrans gave several recommendations pertaining to the required traffic impact analysis and requested a copy of the analysis.
3. South Coast Air Quality Management District (January 22, 2015): The SCAQMD offered suggestions pertaining to the necessary air quality and greenhouse gas studies/analysis for the DEIR. The district requested a copy of the DEIR and all studies related to air quality and greenhouse gases.
4. California Department of Fish and Wildlife (February 10, 2015): The CDFW discusses what should be analyzed in the DEIR for biological resources and what information will be needed should the project require the processing of a Notification of Lake or Streambed Alteration.

2.0 – PROJECT DESCRIPTION

2.1 LOCAL AND REGIONAL SETTING

REGIONAL SETTING

The proposed project is located in Wildomar, which is located in the southwestern portion of Riverside County (see **Figure 2.0-1**). The city is generally bounded by the mountains of the Cleveland National Forest and rural residential uses to the west, the Cities of Lake Elsinore and Canyon Lake to the north and northwest, the City of Murrieta to the south and southeast, and rural residential uses to the east in the City of Menifee. Wildomar's topography is generally rolling, with steeper terrain on the west and east and valley areas in the central portion of the city. Interstate 15 (I-15) aligns northwest to southeast through the center of the city and is the main transportation arterial. Existing land uses in the city consist of a variety of primarily residential, commercial, office, and industrial uses, as well as recreational, open space, and institutional uses.

PROJECT LOCATION AND SETTING

The ±20-acre project site is located in southern Wildomar, bordered by Prielipp Road to the south, the future Bunny Trail Road to the north, and the future Elizabeth Lane to the east (see **Figure 2.0-2**). The topography of the project site consists of gently rolling hills and undeveloped land. The site slopes gently in a northeast to southwest direction, with the elevations ranging from approximately 1,330 feet above mean sea level along the southwestern boundary to approximately 1,380 feet above mean sea level along the northern boundary. As seen on **Figure 2.0-2**, the project site is vacant, has a large and distinctive drainage feature that cuts across the site from the northwest to the southwest, and has a dirt road (Elizabeth Lane) along its eastern boundary.

Surrounding land uses include a mix of rural and suburban residential development and open space in all directions, in addition to a few commercial developments to the northeast, west, and southwest (**Figure 2.0-2**).

2.2 PROJECT DESCRIPTION

The proposed project includes several components including a proposed plot plan, General Plan Amendment, zone change, a tentative tract map and a conditional use permit. These components are described as follows:

PLOT PLAN

The proposed plot plan would approve the site plan and buildings for the entire ±20-acre project site. The residential portion of the project includes 138 two-story townhomes on approximately 12 acres. The residential area also includes a recreation building and 350 parking spaces (see **Figure 2.0-5**). The townhomes will have a stucco finish, individual garages, and sloped roofs. The proposed project is anticipated to be developed in a single phase with a projected opening year of 2017.

The proposed senior living facility comprises a one and two-story building with 86 units and 86 parking spaces on approximately 6 acres. The building will be similar in style to the townhomes.

In addition to the residential development, the project also includes the extension of Elizabeth Lane along the eastern boundary of the project site and a 2-acre open space area along the

2.0 PROJECT DESCRIPTION

western boundary. Within the proposed project site is a 1.5-acre retention basin and a 1-acre open space area that preserves an existing drainage.

GENERAL PLAN AMENDMENT

The proposed project will amend the City of Wildomar General Plan by changing the land use designation from Business Park (BP) to Commercial Retail (CR) on 8.52 net acres (lots 2 and 3 at the southerly portion of the site) and to High Density Residential (HDR) on 11.69 gross acres (lot 1 at the northerly portion of the site). The proposed General Plan Amendment would allow the townhomes to be built on the HDR portion of the property and the senior living facility to be built on the CR portion.

REZONING

A proposed change in the current zoning designation from R-R (Rural Residential) to C/1-C/P (General Commercial) on 8.52 acres (southerly portion) and from R-R (Rural Residential) to R-3 (General Residential) on 11.69 acres (northerly portion).

TENTATIVE TRACT MAP

A tentative tract map (TTM 36672) will divide the property into three land parcels and allow the creation of airspace condominium parcels for the townhomes (see **Figure 2.0-3**). The main entry for the senior living facility will be located off Prielipp Road, and the main entry for the townhomes will be located off Elizabeth Lane. Emergency vehicle access roads are provided for the assisting living facility and townhomes, and both are located off Elizabeth Lane.

Proposed Grading

The proposed project requires grading along the public rights-of-way that will extend beyond the property ownership boundaries of the project and outside of the existing right-of-way for Bunny Trail and Elizabeth Lane (see **Figure 2.0-4**). In addition to site grading, the grading plan indicates that approximately 34,497 cubic yards of material will be exported from the project site to accommodate the finished elevations.

Roadways

The proposed project will construct improvements to existing and future public roadways of Bunny Trail, Prielipp Road, and Elizabeth Lane adjacent to the site. Elizabeth Lane, located along the project's eastern boundary, will be constructed at its ultimate half-section width as a collector (78-foot right-of-way) from the project's northern boundary to Prielipp Road. Bunny Trail is a future east-west-oriented roadway located along the project's northern boundary and will be constructed at its ultimate half-section width as a collector (60-foot right-of-way) between the project's western boundary and Elizabeth Lane. Prielipp Road is an east-west-oriented roadway located along the project's southern boundary and will be constructed at its ultimate half-section width as a secondary highway (100-foot right-of-way) between the project's western boundary and Elizabeth Lane. All improvements will be constructed to City of Wildomar Public Works' standards and typically include sidewalk, curb, gutter, streetlights, signage, and pavement.

Internal access will be provided by a private roadway for the townhomes and from driveways accessing the parking lot for the senior living facility as shown on **Figure 2.0-5**.

Utilities

Water and wastewater will be provided by the Elsinore Valley Municipal Water District (EVMWD). The project will connect to existing water and wastewater lines in Prielipp Road. Water and wastewater lines will be extended along the other roadways improved by the project as required by the EVMWD.

Existing stormwater flow will be collected at the northeast corner of the project site and conveyed through the project to the existing outflow at the southwest corner of the project site. New stormwater runoff created by the project will be conveyed via street and pipe to two sand filter basins and one subsurface basin to treat for water quality purposes. All stormwater runoff will be conveyed to the existing culverts under Prielipp Road consistent with the requirements of the City and the Riverside County Flood Control and Water Conservation District.

The project will incorporate two sand filter basins and one subsurface basin to treat for water quality purposes and mitigate for increased runoff. These facilities prevent off-site flows from comingling with untreated on-site flows.

All other utilities will be brought to the site from Prielipp Road and extended through the property and underground as required by the City of Wildomar.

CONDITIONAL USE PERMIT

The senior living facility requires a Conditional Use Permit (CUP) to comply with Section 17.72.010.C of the Zoning Ordinance.

2.3 PROJECT OBJECTIVES

The proposed project includes the following basic objectives:

- Establish a mixed-use community for Wildomar with a balance of land uses including senior living, townhomes, and open space.
- Increase full- and part-time employment opportunities for Wildomar residents through development of a senior living community.
- Locate a senior living community within a convenient walking distance from existing and future hospital and medical office facilities and regional public transit stations.
- Create an appropriately sized senior living community that includes a mix of senior housing options and care levels.
- Include on-site recreation opportunities within the community for its residents.
- Utilize architectural styles and design elements that reflect Wildomar's heritage, namely through the use of ranch, farmhouse, and Craftsman styles.

2.0 PROJECT DESCRIPTION

2.4 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS POTENTIALLY REQUIRED FROM OTHER PUBLIC AGENCIES

Actions by other public agencies associated with the project include, but are not limited to, the following:

- US Army Corps of Engineers (USACE): A disturbance to jurisdictional waters of the United States, such as through grading or filling, could potentially trigger the need for a Section 404 permit from the USACE.
- California Department of Fish and Wildlife (CDFW): A 1602 Streambed Alteration Agreement may be required.
- State Water Resources Control Board (SWRCB): A Notice of Intent will be filed to obtain coverage under the General Construction Activity Storm Water Permit prior to project construction.
- Regional Water Quality Control Board (RWQCB): Section 401 Water Quality Certification may be required, as well as permitting associated with potential recycled water for irrigation use.
- Elsinore Valley Municipal Water District (EVMWD): Encroachment permit for water and wastewater.
- Riverside County Flood Control and Water Conservation District: Approval for connection to regional storm drainage system.



HORIZONS

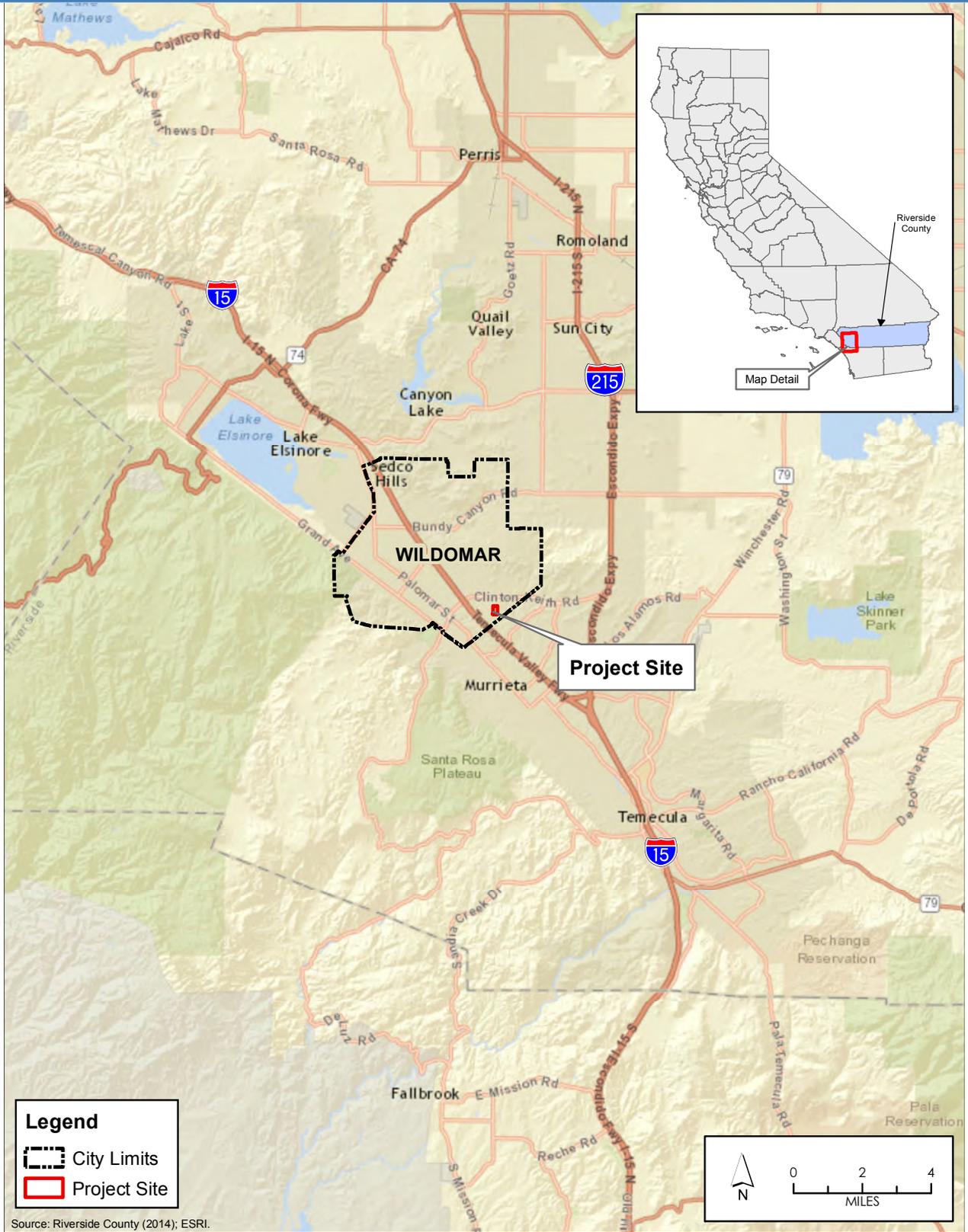


Figure 2.0-1
Regional Location Map



HORIZONS

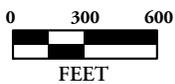
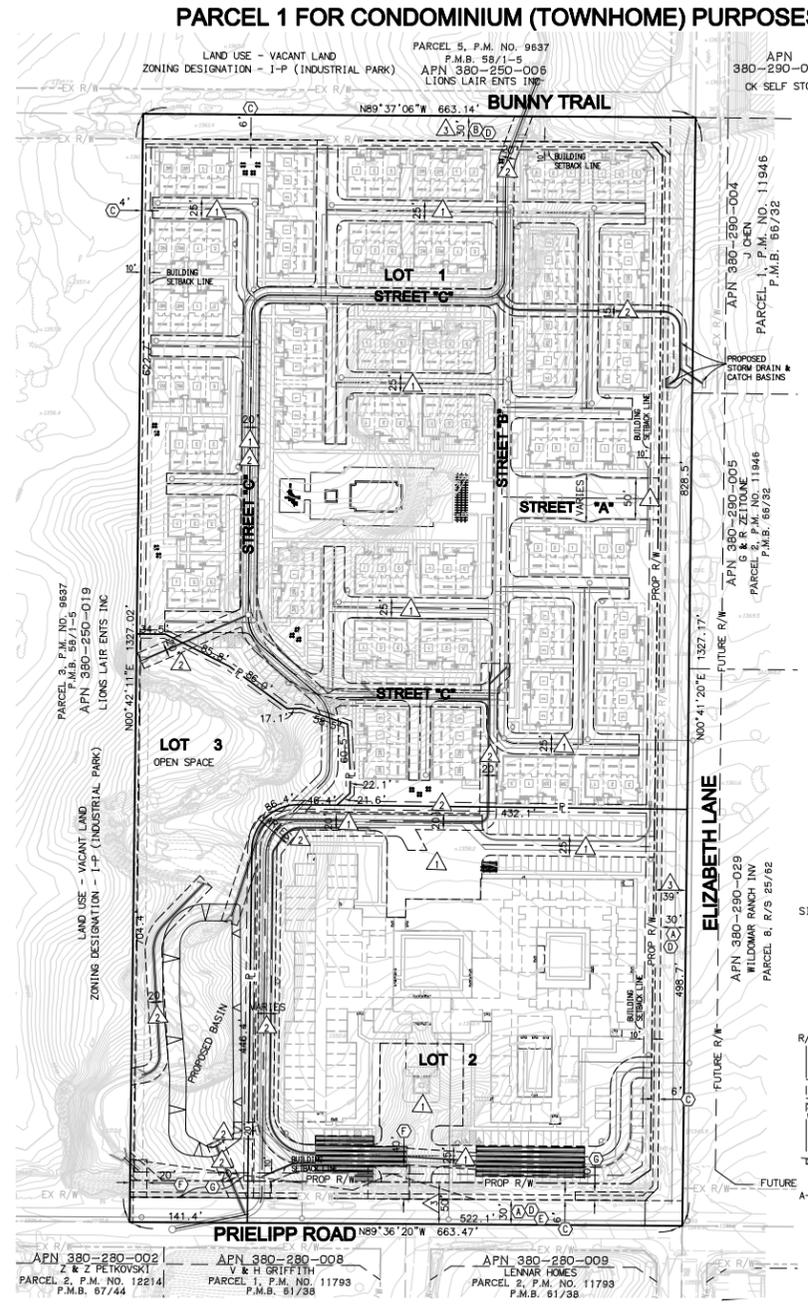


Figure 2.0-2
Project Vicinity



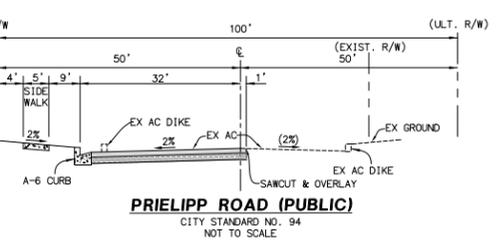
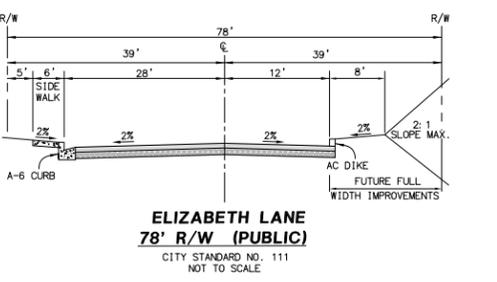
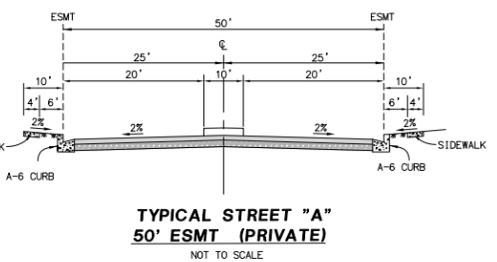
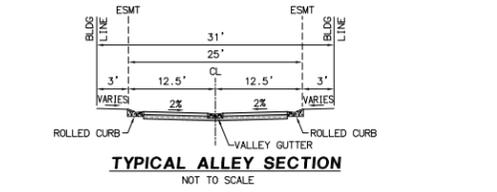
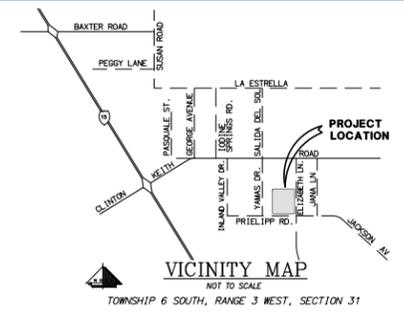
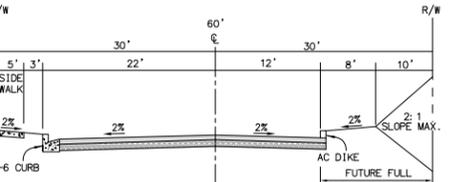
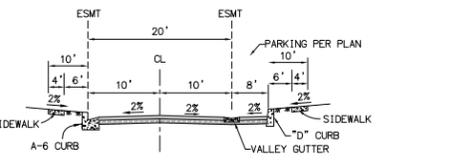
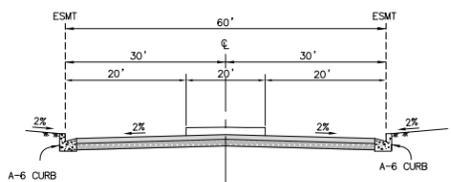
HORIZONS

OWNER / APPLICANT	
STRATA KEITH, LLC 4370 LA JOLLA VILLAGE DRIVE #960 SAN DIEGO, CA 92122 (858)546-0900 (p) (858)546-8725 (f)	
ENGINEER	
RBF CONSULTING 40810 COUNTY CENTER DRIVE, SUITE 100 TEMECULA, CALIFORNIA 92591-6022 PHONE: 951.676.8042 FAX: 951.676.7240	
ASSESSOR PARCEL NUMBER	
380-250-023	
UTILITIES	
SEWER:	ELSINORE VALLEY MUNICIPAL WATER DISTRICT
WATER:	ELSINORE VALLEY MUNICIPAL WATER DISTRICT
GAS:	SOUTHERN CALIFORNIA GAS COMPANY
ELECTRIC:	SOUTHERN CALIFORNIA EDISON COMPANY
TELEPHONE:	GENERAL TELEPHONE
CABLE TELEVISION:	SOUTHLAND CABLEVISION
GENERAL NOTES	
THOMAS BROS. COORD'S:	927, H-1 (2008 EDITION)
EXISTING ZONING:	R-R - RURAL RESIDENTIAL
PROPOSED ZONING:	R-3 - GENERAL RESIDENTIAL
PROPOSED LAND USE:	CR AND HDR
EXISTING LAND USE:	VACANT
EXISTING SURROUNDING LAND USE:	VACANT AND RESIDENTIAL
TOTAL COMMERCIAL LOTS:	1 (LOT 2)
TOTAL RESIDENTIAL LOTS:	1 (LOT 1)
TOTAL TOWNHOME UNITS:	138
TOTAL OPEN SPACE LOTS:	1 (LOT 3)
PROJECT ACREAGE:	20.2 AC. (GROSS), 17.8 AC. (NET)
PROJECT DENSITY:	11.1 D.U. PER ACRE
MINIMUM LOT SIZE:	N/A
SCHOOL DISTRICT:	ELSINORE UNIFIED SCHOOL DISTRICT
COMMUNITY SERVICE DISTRICT:	N/A
F.E.M.A. PANEL NUMBER:	06065C2705G
THIS MAP INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER.	
LOT 1 CONTAINS PRIVATE STREETS.	
PROPERTY IS NOT SUBJECT TO OVERFLOW, INUNDATION OR FLOOD HAZARD (ZONE X PANEL 06065C2705G).	
THERE ARE NO WELLS ON OR WITHIN 200 FEET OF THE SUBDIVISION.	
BUILDING SETBACKS	
MINIMUM FRONT AND REAR YARDS SHALL BE 10 FEET FOR BUILDINGS UNDER 35 FEET IN HEIGHT.	
MINIMUM SIDE YARD SHALL BE 5 FEET FOR BUILDINGS THAT DO NOT EXCEED 35 FEET IN HEIGHT.	
LEGAL DESCRIPTION	
PARCEL 4 OF PARCEL MAP NO. 9637, IN THE CITY OF WILDOMAR, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 58, PAGES 1 THROUGH 5, INCLUSIVE, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.	
SOURCE OF TOPO	
ASSOCIATED DATA COMPILED FROM AERIAL PHOTOGRAPHY DATED 01-22-13 BY:	
INLAND AERIAL SURVEYS, INC. 7117 ARLINGTON AVENUE, SUITE A RIVERSIDE, CA 92503 Ph (951) 687-4252 Fx (951) 687-4120 tas@inlandairtel.com	
LOT ACREAGES	
LOT 1	10.52 AC. (NET) / 11.69 AC. (GROSS)
LOT 2	4.97 AC. (NET) / 5.98 AC. (GROSS)
LOT 3	2.38 AC. (NET) / 2.54 AC. (GROSS)
TOTAL	17.87 AC. (NET) / 20.21 AC. (GROSS)
ADJUSTED EARTHWORK QUANTITIES	
RAW:	CUT: 140,307 C.Y. FILL: 98,269 C.Y.
REMEDIAL:	CUT: 124,931 C.Y. FILL: 124,930 C.Y.
SHRINKAGE:	CUT: 7,542 C.Y. FILL: 7,542 C.Y.
TOTAL:	CUT: 265,238 C.Y. FILL: 230,741 C.Y.
NET:	34,497 C.Y. (EXPORT)
LEGEND	
TRACT BOUNDARY	---
R/W	---
STREET C	---
WATER SERVICE	⊗
SEWER SERVICE	⊗
AIR RELEASE VALVE	⊙
FIRE HYDRANT	⊙
DRIVEWAY	▤
STREET LIGHT	⊙
SLOPE	Y Y Y
LOT NUMBER	LOT 1



- PROPOSED EASEMENT NOTES:**
- Ⓐ INDICATES AN EASEMENT FOR ACCESS AND PUBLIC UTILITIES TO BE RESERVED ON FINAL MAP.
 - Ⓑ INDICATES AN EASEMENT FOR STORM DRAIN PURPOSES TO BE DEDICATED ON FINAL MAP.
 - Ⓒ INDICATES STREET RIGHT OF WAY TO BE DEDICATED TO THE PUBLIC ON THE FINAL MAP.

- EXISTING EASEMENT NOTES**
- Ⓐ ROAD EASEMENT AS SHOWN ON PARCEL MAP 9637, PMB 58/1-5.
 - Ⓑ ROAD EASEMENT AS SHOWN ON PARCEL MAP 9637, PMB 58/1-5. BUNNY TRAIL WAS VACATED BY RESOLUTION 2007-045, RECORDED 10/4/2007 AS INSTRUMENT NO. 2007-0619517 O.R. THE VACATION DID RESERVE AN EASEMENT FOR ANY PUBLIC UTILITIES.
 - Ⓒ EASEMENT FOR PUBLIC UTILITY PURPOSES TO SOUTHERN CALIFORNIA EDISON COMPANY RECORDED 12/13/1978 AS INSTRUMENT NO. 78-261602 O.R.
 - Ⓓ EASEMENT FOR PUBLIC UTILITY PURPOSES TO GENERAL TELEPHONE COMPANY RECORDED 2/16/1979 AS INSTRUMENT NO. 79-33297 O.R.
 - Ⓔ EASEMENT FOR ROAD, DRAINAGE, PUBLIC UTILITY AND PUBLIC SERVICE PURPOSES TO CALIFORNIA OAKS CO. RECORDED 5/27/1987 AS INSTRUMENT NO. 87-147796 O.R.
 - Ⓕ EASEMENT FOR DRAINAGE AND FLOWAGE PURPOSES TO CALIFORNIA OAKS CO. RECORDED 5/27/1987 AS INSTRUMENT NO. 87-147797 O.R.
 - Ⓖ EASEMENT FOR SLOPE AND MAINTENANCE PURPOSES TO CALIFORNIA OAKS CO. RECORDED 4/24/1989 AS INSTRUMENT NO. 89-130127 O.R.



NOTE:
SEE CONCEPTUAL GRADING PLAN BEING PROCESSED CONCURRENTLY FOR PAD AND FINISH FLOOR ELEVATIONS.
SEE CONCEPTUAL LANDSCAPE PLAN BEING PROCESSED CONCURRENTLY FOR WALL AND FENCING LAYOUT.

Source: RBF Consulting, a Michael Baker International company

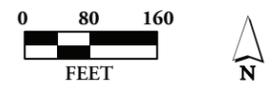
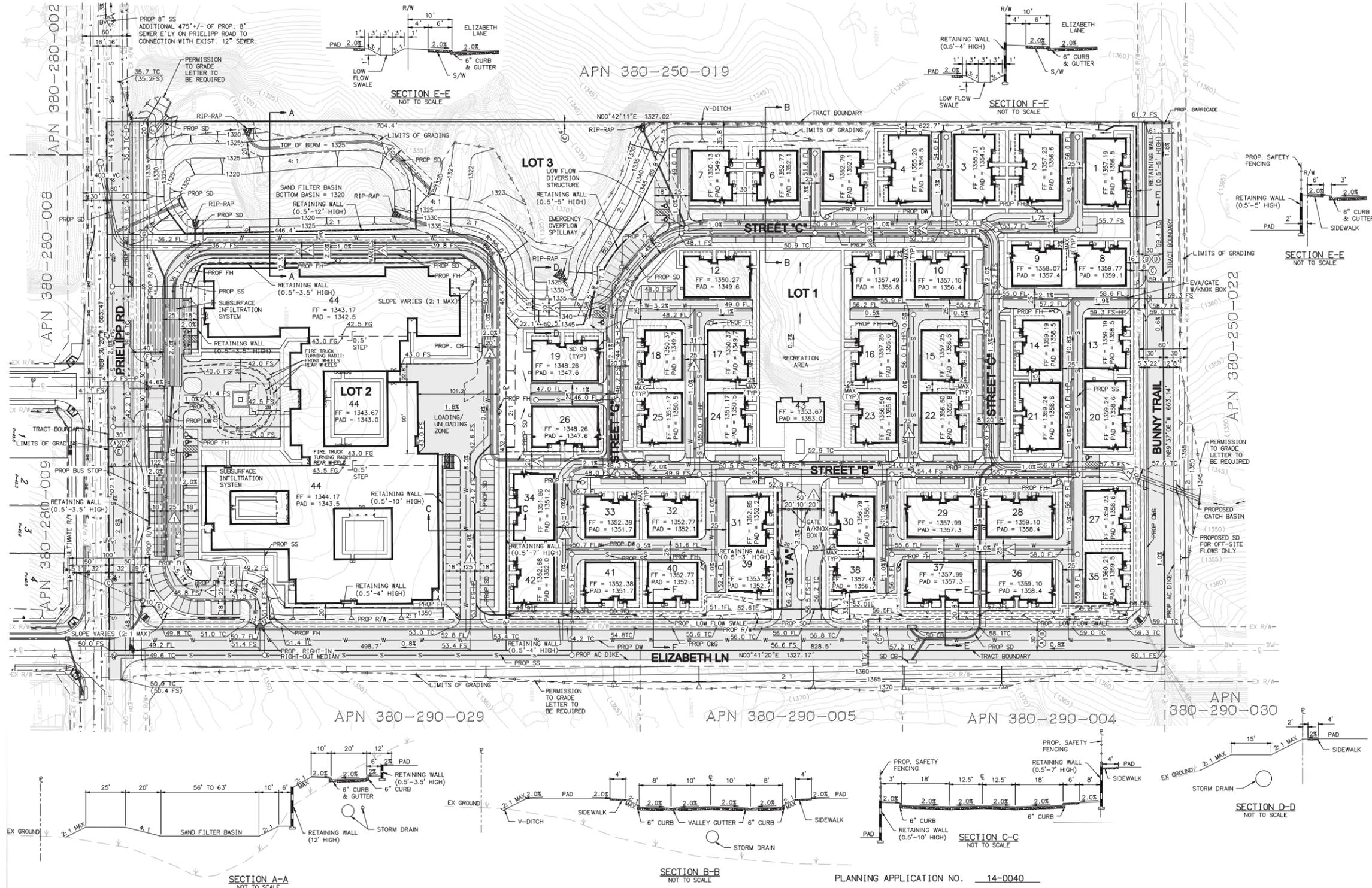


Figure 2.0-3
Tentative Tract Map



HORIZONS



Source: RBF Consulting, a Michael Baker International company

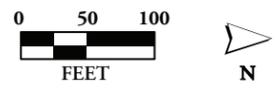
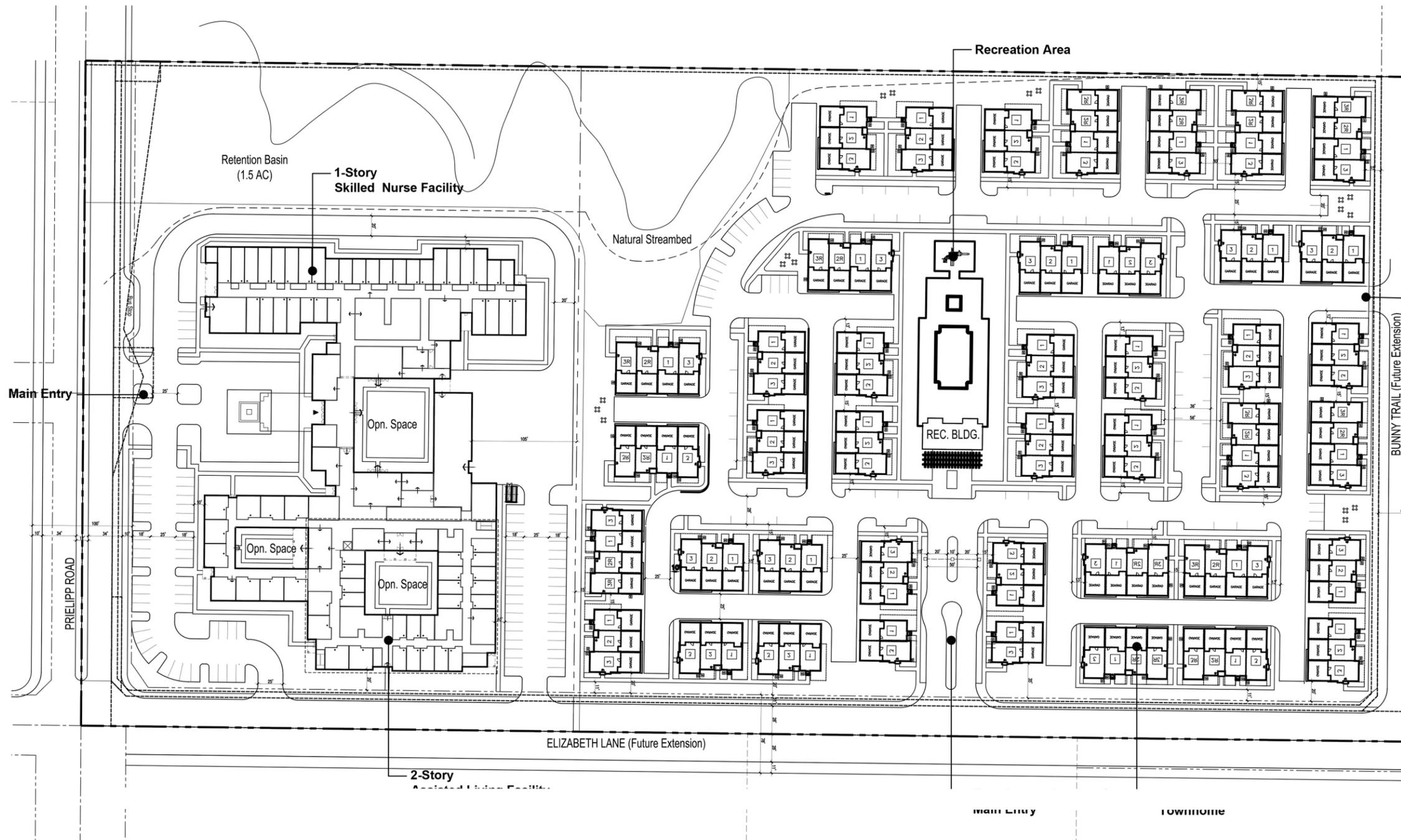


Figure 2.0-4
Grading Site Plans



HORIZONS



Project Summary

Gross Site Area	20.21 AC
Retention	1.50 AC
Public Roads	2.34 AC
Dwelling Units	224 DU
Density	11.1 DU/AC

TOWNHOMES	
Area	11.5 AC (Net)
Active Open Space	
- Required	1.3 AC*
- Provided	1.3 AC
Slope	0.81 AC

*Active Open Space assumes 3.29 ppl/du & 3 AC open space/1,000 ppl required

2 Story Townhomes	138 Units
Plan-1 (2BR+2.5BA/1405 s.f.)	42 Units (30%)
Plan-2 (3BR+2.5BA/1463 s.f.)	40 Units (30%)
Plan-3 (3BR+2.5BA/1658 s.f.)	56 Units (40%)
Density	12 DU/AC (Net)

Parking Required	
2BR (2.25/DU) - 42 Units	95 Spaces
3BR (2.75/DU) - 96 Units	264 Spaces
Total Required	359 Spaces

Parking Provided	359 Spaces
Open Stalls	83 Spaces
Garage Stalls	276 Spaces

SENIOR LIVING	
Area	4.87 AC (Net)
Recreation Area	0.33 AC

Units	
Skilled Nursing	32 Units
Assisted Living	54 Units
Total	86 Units

Density	17.7 DU/AC (Net)
---------	------------------

Parking Required (1.0 Spaces/Unit)	
ee) 88 Spaces	
(1.0 Space/Unit)	

Source: KTG Group, Inc.



Figure 2.0-5
Site Plan



HORIZONS

Project Summary

Gross Site Area	20.21 AC
Retention	1.50 AC
Public Roads	2.34 AC
Dwelling Units	224 DU
Density	11.1 DU/AC

TOWNHOMES

Area	11.5 AC (Net)
Active Open Space	
- Required	1.3* AC
- Provided	1.3 AC
Slope	0.81 AC

*Active Open Space assumes 3.29 ppl/du & 3 AC open space/1,000 ppl required

2 Story Townhomes	138 Units
Plan-1 (2BR+2.5BA/1405 s.f.)	42 Units (30%)
Plan-2 (3BR+2.5BA/1463 s.f.)	40 Units (30%)
Plan-3 (3BR+2.5BA/1658 s.f.)	56 Units (40%)

Density 12 DU/AC (Net)

Parking Required	
2BR (2.25/DU) - 42 Units	95 Spaces
3BR (2.75/DU) - 96 Units	264 Spaces
Total Required	359 Spaces

Parking Provided	359 Spaces
Open Stalls	83 Spaces
Garage Stalls	276 Spaces

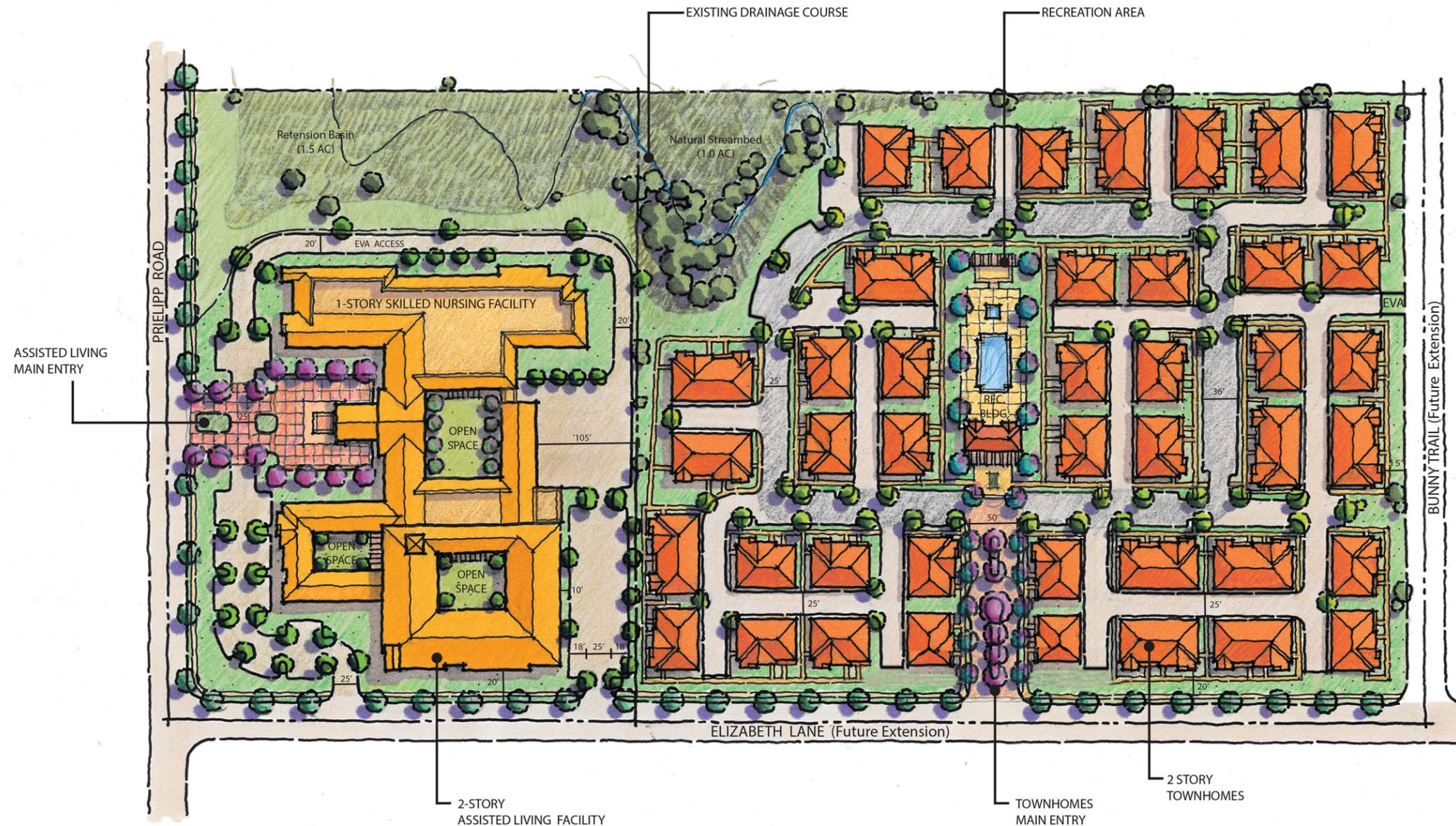
SENIOR LIVING

Area	4.87 AC (Net)
Recreation Area	0.33 AC

Units	
Skilled Nursing	32 Units
Assisted Living	54 Units
Total	86 Units

Density 17.7 DU/AC (Net)

Parking Required (1.0 Spaces/Unit)	
Total Provided (Guest/Employee):	88 Spaces
	(1.0 Space/Unit)



Source: RBF Consulting, a Michael Baker International company



Figure 2.0-6
Illustrative Site Plan

3.0 – INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED

3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED

3.1 ANALYSIS ASSUMPTIONS USED TO EVALUATE THE PROPOSED PROJECT

STRUCTURE OF THE ENVIRONMENTAL IMPACT ANALYSIS

Existing Setting

Section 15125(a) of the California Environmental Quality Act (CEQA) Guidelines requires that an environmental impact report (EIR) include a description of the physical environmental conditions in the vicinity of a project as they exist at the time the Notice of Preparation (NOP) is published and the environmental analysis is begun. The CEQA Guidelines also specify that this description of the physical environmental conditions is to normally serve as the baseline physical conditions by which a lead agency determines whether impacts of a project are considered significant.

The environmental setting of the proposed project is described in detail in the individual technical sections of the Draft EIR (see Sections 3.1 through 3.14). In general, these sections describe the setting of the City of Wildomar as it existed when the NOP for the proposed project was filed on January 26, 2015.

Regulatory Framework

This subsection identifies applicable federal, state, regional, and local plans, policies, laws, and regulations that apply to the technical area of discussion.

Standards of Significance

Standards of significance, based on Appendix G of the CEQA Guidelines, are identified and used to determine whether the environmental effects are considered significant and require the application of mitigation measures. The number of each standard is reflected in each environmental impact analysis.

Impacts and Mitigation Measures

This subsection compares the impacts of the project to the standards of significance to determine whether the standard will be exceeded. If the project will exceed the threshold, modifications to the project are recommended to reduce the impact. These required modifications to a project to reduce impacts below a threshold are known as mitigation measures. When a precise mitigation measure is not possible, or if the extent of the mitigation is dependent on future action(s), the text of the mitigation measure identifies performance standards that identify clear requirements that would avoid or minimize significant environmental effects. The use of performance standard mitigation is allowed under CEQA Guidelines Section 15126.4(a). In some instances, the environmental impacts of the proposed project will be fully mitigated through compliance with existing federal, state, and local laws. When this occurs, the law will be identified and a brief explanation will be provided as to how compliance with the law will mitigate the environmental impact. It is important to note that mitigation is required only for impacts associated with the proposed project. Mitigation measures cannot be used to address existing deficiencies.

The impact analysis may conclude with one of the following determinations:

Less Than Significant Impact: A less than significant impact would cause no substantial change in the physical condition of the environment (no mitigation would be required for project effects found to be less than significant).

3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED

Less Than Significant Impact With Mitigation Incorporated: This determination concludes that the impact would be significant; however, a specific modification to the project would reduce the impact to a less than significant level.

Significant and Unavoidable Impact: A significant and unavoidable impact means that even with available mitigation, the resulting impact remains above the threshold and therefore significant. Note that this determination may also be made if the City does not have the authority to implement the mitigation measure.

Less Than Cumulatively Considerable Impact: A less than cumulatively considerable impact would cause no substantial change in the physical condition of the environment under cumulative conditions.

Cumulatively Considerable Impact: A cumulatively considerable impact would result when the incremental effects of an individual project result in a significant adverse physical impact on the environment under cumulative conditions.

Approach to the Cumulative Impact Analysis

CEQA Guidelines Section 15130 requires that EIRs include an analysis of the cumulative impacts of a project when the project's effect is considered cumulatively considerable. Each technical section in the Draft EIR considers whether the project's effect on anticipated cumulative setting conditions is cumulatively considerable (i.e., a significant effect). "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (CEQA Guidelines Section 15065[a][3]). The determination of whether the project's impact on cumulative conditions is considerable is based on a number of factors, including consideration of applicable public agency standards, consultation with public agencies, and expert opinion. The environmental effects of the proposed project are incorporated in the cumulative impact analysis contained in each technical section.

Definition of Cumulative Setting

The cumulative setting conditions considered in this Draft EIR are based on:

- **Local Adopted General Plans.** The existing General Plans in the region consist of those of the Cities of Wildomar, Lake Elsinore, Menifee, and Murrieta and the County of Riverside.
- **Large-Scale Development Projects.** This includes current large-scale proposed and approved development projects in the region.
- **Effect of Regional Conditions.** The cumulative setting considers background traffic volumes and patterns on regional and state roadways. Additionally, physical conditions in the region pertinent to each environmental issue area are considered in the cumulative setting. Those topics are discussed in Sections 3.1 through 3.14.

Each technical section of the Draft EIR includes a description of the cumulative setting's geographic extent based on the characteristics of the environmental issue under consideration as set forth in Section 15130(b) of the CEQA Guidelines.

3.1 AESTHETICS AND VISUAL RESOURCES

3.1 AESTHETICS AND VISUAL RESOURCES

This section describes the existing visual character of Wildomar and the project site, including existing sources of light and glare as well as existing views of the project site from surrounding vantage points. The impact analysis focuses on potential project impacts on the aesthetics and visual character of the project site and the overall change in character of the project area that would occur with implementation of the proposed project. The discussion in this section is based on site reconnaissance, photo documentation, aerial photographs, and review of existing policy documents, including the City of Wildomar General Plan.

3.1.1 EXISTING SETTING

EXISTING CONDITIONS

On-site vegetation includes non-native groundcover, with a smaller component of native vegetation dominated by California buckwheat, chamise, and Riversidean sage scrub. One drainage feature bisects the project site and meanders from north to south for approximately 1,950 linear feet, prior to exiting the site for 131 linear feet and then reentering the site near the southwest corner of the property where flows enter a 36-inch corrugated metal pipe beneath Prielipp Road along the southern project site boundary. This drainage is unvegetated and exhibits ephemeral flow from headwaters commencing in the foothills located approximately 1.5 miles north of the project site. **Figure 3.1-1** shows pictures of the site, the drainage feature, and the surrounding areas. **Figure 3.3-1**, presented in Section 3.3, Biological and Natural Resources, shows an aerial view and location of the drainage feature.

Views of the Santa Ana Mountains may be seen beyond Interstate 15 to the northwest, west, and south of the project site. Overhead power lines run along Prielipp Road as it borders the project site to the south. A mountain range is also visible to the northeast and east of the project. The following is a brief discussion of the visual character of the project site and the surrounding area.

- North: From Prielipp Road, foreground and middleground views of the project site are dominated by rising elevations and low-lying vegetation. Background views include vistas of distant mountain ranges to the northwest and northeast. Views of single-family residences and undeveloped/open space land can be seen just north of the project. A commercial building is visible directly to the northeast of the project site. Views of the Santa Ana Mountains may be seen beyond Interstate 15 to the northwest. A mountain range is visible farther to the northeast.
- West: From Elizabeth Road, foreground and middleground views of the project site are dominated by gentle rolling hills/elevations and low-lying vegetation. Background views include vistas of the Santa Ana Mountains. Views of open space/undeveloped land adjacent to the west of the project site and the Santa Rosa Apartment Homes across Yamas Drive a little farther west can be seen as well.
- East: From the adjacent parcel to the west (there is currently no road separating this parcel from the project site), foreground and middleground views of the project site are dominated by gentle rolling hills/elevations and low-lying vegetation. Background views include vistas of a mountain range. Views of vacant land/open space and single-family residences can be seen adjacent to and east of the project site.
- South: From the adjacent parcel to the north (there is currently no road separating this parcel from the project site), foreground and middleground views of the project site are dominated by gentle rolling hills/elevations and low-lying vegetation. Background views

3.1 AESTHETICS AND VISUAL RESOURCES

include vistas of the Santa Ana Mountains. Views of vacant land/open space and single-family residences can be seen south of the project, across Prielipp Road. The Gables Oak Creek apartment complex can be seen southeast of the project site, across Prielipp Road.

The immediate setting of the site is semi-rural; however, conversion from a landscape of large-lot rural residential to suburban residential development (apartments and subdivisions) is emerging in the vicinity.

Interstate 15 includes several illuminated overhead directional signs. **Table 3.1-1** provides a summary of the visual resources on the project site. Interstate 15 as it travels through western Riverside County is eligible to be designated as a state scenic highway, though it is not currently recognized as such. The City of Wildomar General Plan does not identify any portion of the proposed project area as a designated state or county scenic resource, and the site is not identified as being eligible for such designation.

**TABLE 3.1-1
SUMMARY OF VISUAL RESOURCES**

Visual Resource	Description
Open space	Open space is a scenic feature present to the north, east, south, and west of the project site.
Vistas of distant mountains	Views from the project site offer vistas of the Santa Ana Mountains spanning from the west, northwest, and southwest. In addition, views from the project site offer vistas of another mountain range to the northeast and east.

The majority of views to the project site are from drivers commuting along Prielipp Road, which runs along the southern boundary of the project site, as well as from the residential land uses in the project vicinity. Other viewer groups include people living in single-family and multi-family residences in all directions and people working in the commercial building located to the northeast of the project site.

Light and Glare

The introduction of light from interior and outdoor uses can be a nuisance to adjacent residential areas and can diminish the view of the clear night sky. Perceived glare is the unwanted and potentially objectionable sensation as observed by people as they look directly into a light source. Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated.

Existing light sources in the vicinity of the project site include streetlights, residential lights, commercial lights, and vehicle headlights from motor vehicles on local roadways. No light and glare is currently produced from the site, as it is undeveloped.



HORIZONS



Northern View of project site from the Corner of Prielipp Road and Elizabeth Lane



Northern View of Project Site and Off-Site Residential and Commercial Uses from Central Area Project Site



Southern View of Project Site and Prielipp Road from Elizabeth Lane



Southern View of Project Site and Elizabeth Lane/Dirt Road from Elizabeth Lane



Western View of Project Site/Drainage Course from the Central Area of the Project Site



Western View of Project Site/Drainage Basin and Prielipp Road from the Southern Area of the Project Site



Eastern View of Project Site and Off-Site Residential Uses and Open Space from the Central Area of the Project Site



Eastern View of Project Site and Off-Site Residential Uses and Open Space from the Central Area of the Project Site

Source: Michael Baker International, Inc. 2015

Figure 3.1-1
Existing Photographs of Site and Vicinity

3.1.2 REGULATORY FRAMEWORK

Nighttime Sky – Title 24 Outdoor Lighting Standards

The California legislature passed a bill in 2001 requiring the California Energy Commission (CEC) to adopt energy efficiency standards for outdoor lighting for both the public and private sectors. In November 2003, the CEC adopted changes to Title 24, Parts 1 and 6, Building Energy Efficiency Standards. These standards became effective on October 1, 2005, and included changes to the requirements for outdoor lighting for residential and nonresidential development. The new standards will likely improve the quality of outdoor lighting and help to reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting characteristics such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on population figures of the 2000 Census. Areas can be designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban).

LOCAL

City of Wildomar Municipal Code and Zoning Ordinance

The City of Wildomar Municipal Code includes standards and regulations pertaining to aesthetics in the city. Chapter 8.64, Light Pollution, provides regulations for outdoor lighting in order to preserve the access to the dark night sky enjoyed by residents of Wildomar and of surrounding communities, reduce light pollution in order to support astronomical activity and protect the viability of the Palomar Observatory, minimize adverse off-site impacts of lighting such as light trespass, an obtrusive light, particularly in residential neighborhoods, conserve energy and resources to the greatest extent possible, and ensure adequate lighting for the safety, security, and well-being of persons engaged in outdoor nighttime activities (Wildomar Municipal Code Section 8.64.010). The project is located in Zone B, approximately 26 miles from the Palomar Observatory.

3.1.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines, an aesthetic or visual resource impact is considered significant if implementation of the project would result in any of the following:

- 1) Have a substantial adverse effect on a scenic vista.
- 2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- 3) Substantially degrade the existing visual character or quality of the site and its surroundings.
- 4) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.1 AESTHETICS AND VISUAL RESOURCES

METHODOLOGY

The visual resource analysis is based on field review of the project site and review of topographic conditions, as well as anticipated changes from implementation of the proposed project and other anticipated development in the area.

Interstate 15 (I-15) from Corona south to the San Diego County line has been designated as an eligible state scenic highway. The scenic highways designated in the Elsinore Area Plan are depicted on Figure 9, Scenic Highways, of the Elsinore Area Plan in the adopted City General Plan. This exhibit indicates that there are no roads in the project vicinity designated as scenic highways. As discussed in the Existing Setting subsection above, there are no adopted scenic highways in the project area, so this impact will not be considered further in this Draft EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Have a Substantial Adverse Effect on a Scenic Vista (Standard of Significance 1)

Impact 3.1.1 The proposed project will have **no impact** on any scenic vista.

While I-15, directly to the west of the project site, is eligible to be designated as a state scenic highway, it has not yet been recognized as such (Caltrans 2015). In addition, there is no other federal, state, or local designation recognizing the project site or any land adjacent to the project site as a scenic resource or vista. The proposed project will result in **no impact** to any scenic vista.

Mitigation Measures

None required.

Substantially Damage Scenic Resources or Visual Character of the Area and Surroundings (Standards of Significance 2 and 3)

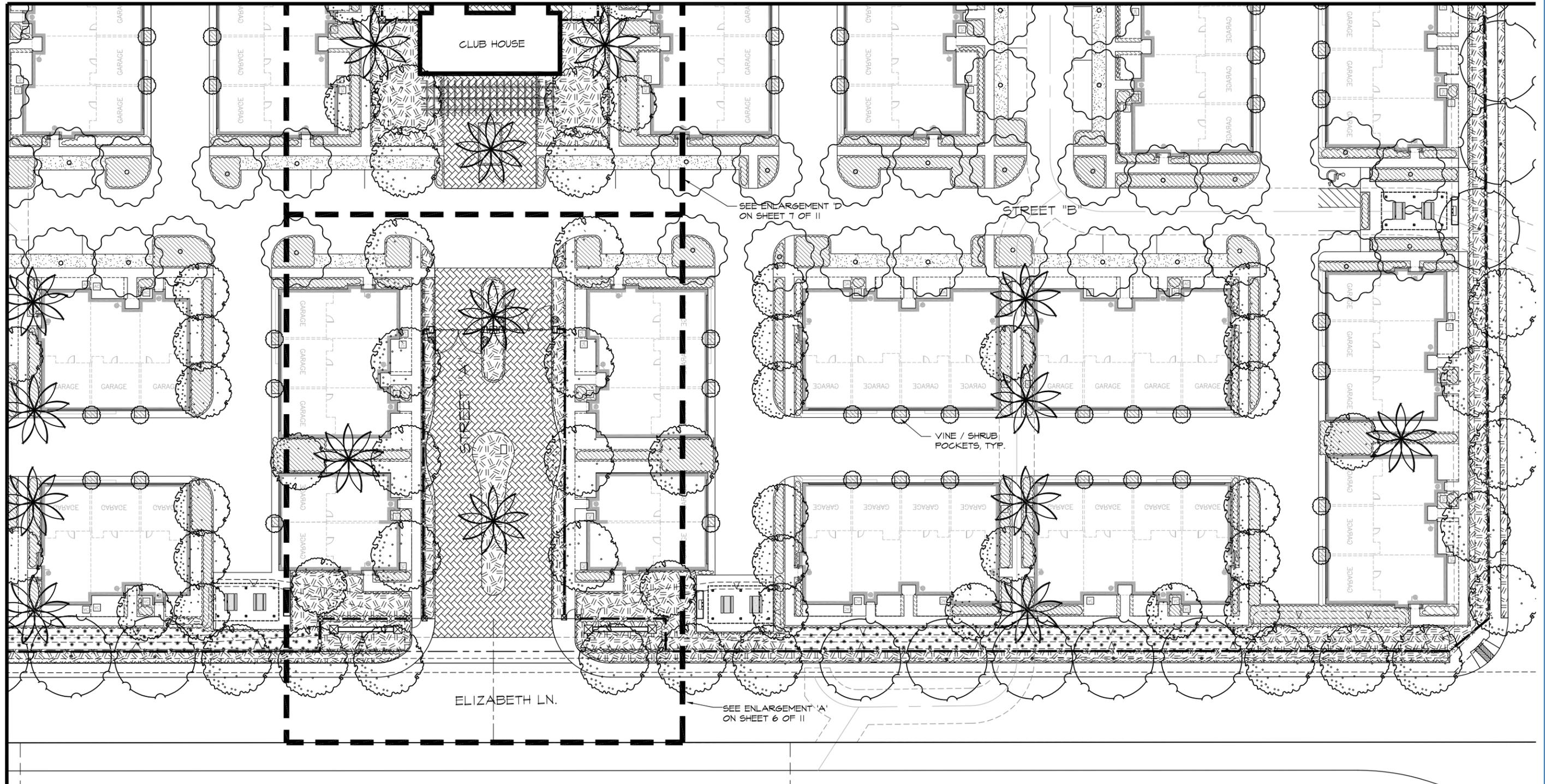
Impact 3.1.2 While the proposed project will result in changes to the existing visual character of the project site, these changes will not lead to a significant degradation of the existing visual character of the area. This impact is **less than significant**.

Development of the project site will create short-term aesthetic impacts during project construction, which includes removal of vegetation, baring of the soil during grading, and recontouring the project site. Final construction of the proposed townhomes, senior units, and parking lots will alter the existing visual character of the area by adding buildings, lights, and activity on what is currently a vacant site. Both the construction and the finished buildings will be visible from Prielipp Road, Elizabeth Lane, and Bunny Trail.

Figure 3.1-2 shows the extent of landscaping that will be included with the proposed project, as well as the fill of a portion of the existing drainage on the site. The northern portion of the drainage will be filled to accommodate the project, as shown in **Figure 3.1-2**. The southern portion of the drainage will be widened to accommodate the storm drainage basin that will accept runoff from the project site (see **Figure 3.1-2c**).



HORIZONS



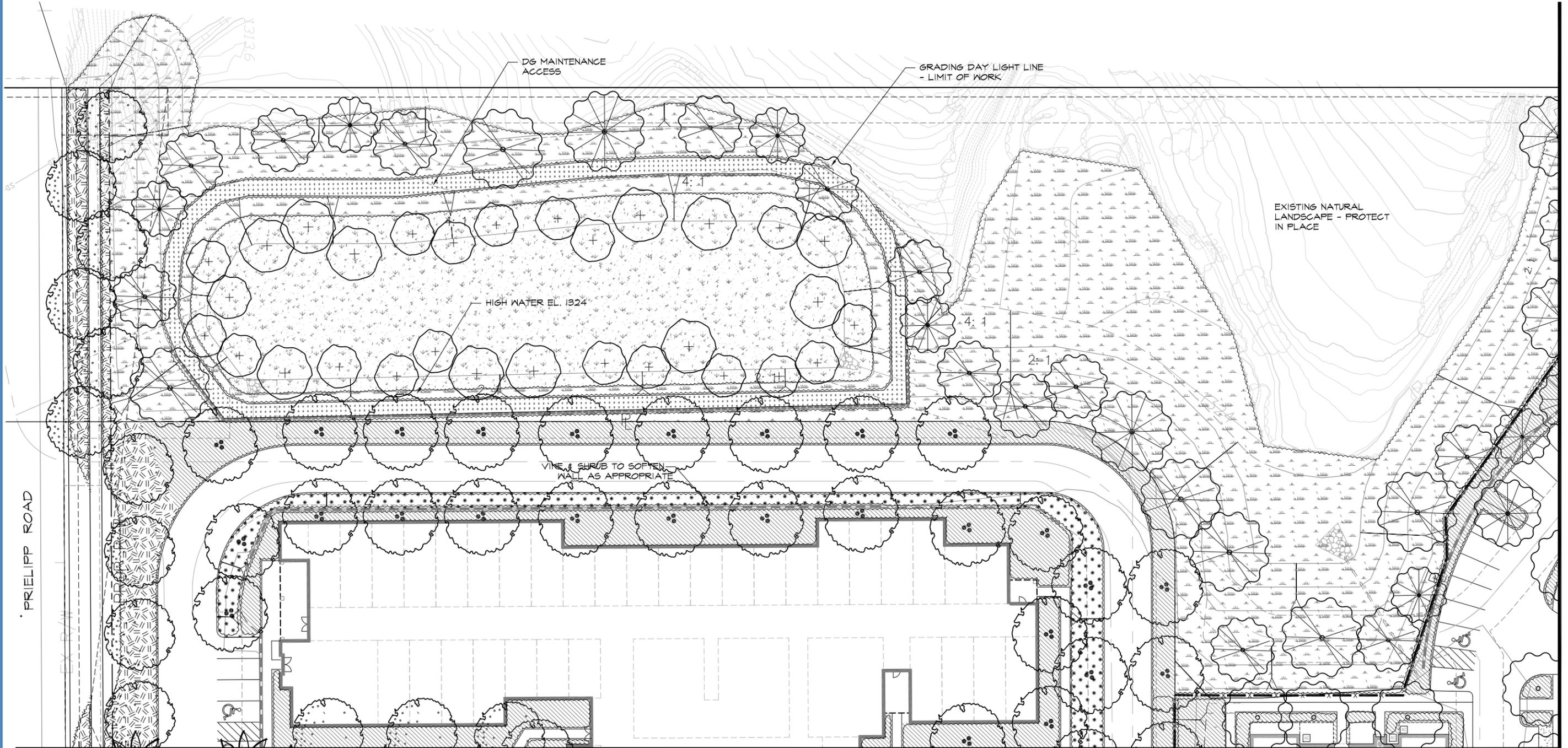
Source: RBF Consulting, a Michael Baker International company



Figure 3.1-2b
Landscape Plan



HORIZONS



Source: RBF Consulting, a Michael Baker International company

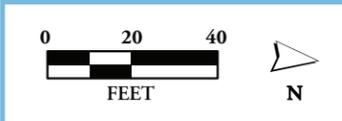
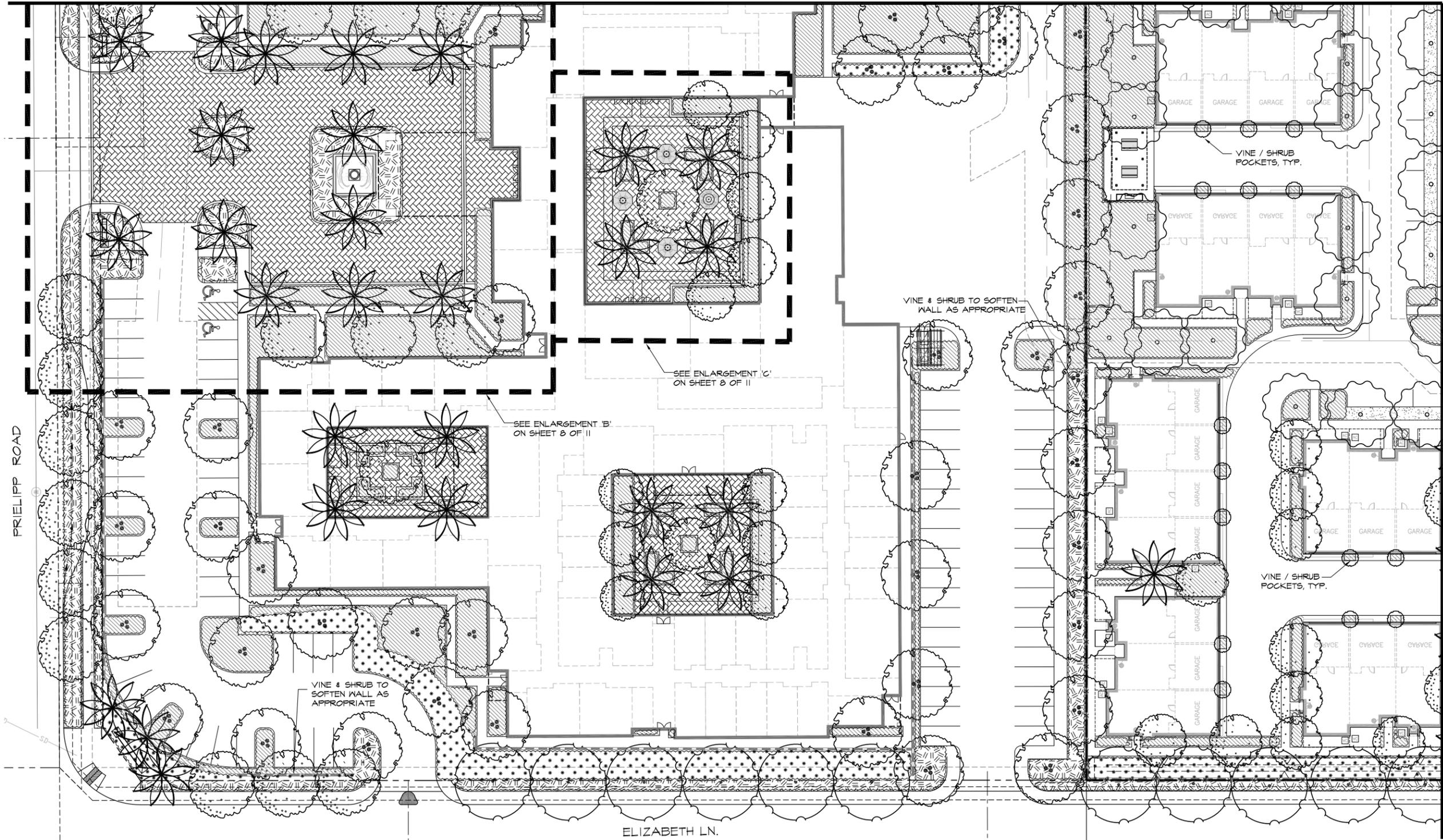


Figure 3.1-2c
Landscape Plan



HORIZONS



Source: RBF Consulting, a Michael Baker International company

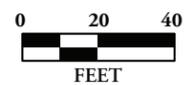


Figure 3.1-2d
Landscape Plan

The proposed landscaping will comply with the City's landscape ordinance and will also be designed appropriate for the climate in Wildomar. The required landscaping is consistent with other adjacent development.

The structures are similar in size and design to others in the vicinity. The senior living building is similar in scale to the multiple-family buildings south and east of the project and to the other institutional buildings on Prielipp Road to the west. The two-story townhomes are also similar in scale and design to existing residential development to the west and south. Because there are no trees outside of the drainage, rock outcroppings, or historic buildings in the area, the project cannot affect these resources.

Development of the project will convert vacant land to a residential land use, permanently changing the visual character of the site from a rural to an urban environment. The change in land use is consistent with recent development, including apartments to the southeast and west, as well as consistent with the emerging development pattern for the area, which is trending from rural to suburban and mixed-use developments. Impacts to the visual character are considered **less than significant**.

Mitigation Measures

None required.

Create a New Source of Substantial Light or Glare (Standard of Significance 4)

Impact 3.1.3 The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Impacts would be **less than significant**.

The project site is vacant and currently produces no light or glare. Sources of glare and light near the project site include large-lot rural residential homes, a three-story apartment building across the street to the south, a two-story apartment building approximately a quarter mile to the west, a commercial/storage facility northeast of the project site, and traffic (traffic lights/glare from windshields) along Prielipp Road to the south of the project. The windows of the nearby residential structures create glare during the day. The lighting from these residences and commercial uses, nearby streets, and outdoor parking lots are an existing source of light and glare in the project vicinity at night.

The development of the project would create additional sources of light and glare, both during construction and after project completion. Glare during project construction might occur from sun reflection on construction vehicles. Lighting associated with project construction is anticipated to be from security lighting for the construction site, as construction activity is prohibited after dark. However, these aesthetic impacts are anticipated to be less than significant because they are similar to existing conditions surrounding the project site.

Completion and operation of the project would introduce new light sources in the vicinity during the day and night. The windows of the structures may create glare during the day. The lighting for buildings, nearby streets, and outdoor parking lots would be a potential source of light and glare to residences and commercial uses in the project vicinity at night. In addition, the City has street standards that require the installation of streetlights that will be similar to others in the area.

A source of glare during the nighttime hours is artificial light. Sources of new and increased nighttime lighting and illumination include, but are not limited to, new residential development,

3.1 AESTHETICS AND VISUAL RESOURCES

lighting from commercial uses, lights associated with vehicular travel (e.g., car headlights), street lighting, parking lot lights, and security-related lighting.

As discussed above in the Regulatory Framework subsection, light pollution is regulated by Wildomar Municipal Code Chapter 8.64, which provides regulations for outdoor lighting with which all new development must comply, including the proposed project. The project's light fixtures located along the perimeter would be provided with house-side shields to eliminate light pollution onto streets and neighboring properties. In addition, the project proposes landscaped buffers along the Prielipp Road, Elizabeth Lane, and Bunny Trail frontages, which would help block any daytime glare created by sun reflecting off vehicle windshields or building windows.

In addition, Wildomar adheres to Riverside County's Light Pollution Ordinance (No. 655), which restricts nighttime lighting for areas in the vicinity of the Palomar Observatory. It should be noted that when lighting is "allowed" by this ordinance, it must be fully shielded, if feasible, and partially shielded in all other cases. Lighting for on-premises advertising displays must be shielded and focused to minimize spill light into the night sky or adjacent properties. In conformance with Riverside County's Light Pollution Ordinance, all artificial outdoor light fixtures must be installed in conformance with the provisions of the ordinance, the Building Code, the Electrical Code, and lighting requirements specified in the Zoning Ordinance of the County of Riverside. Section 59.105 of Ordinance No. 655 sets forth specific requirements for lamp sources and shielding of light emissions for outdoor light fixtures. Lighting for on-premises advertising displays must be shielded and focused to minimize light spill into the night sky or adjacent properties.

Conformance with Municipal Code Chapter 8.64 is enforced when building permit(s) are applied for. Adherence to the City's light pollution ordinance, which establishes the types of fixtures and size of bulbs for lighting fixtures and requires installation of shielded and full cutoff lighting to prevent light from being emitted above the horizontal plane, ensures impacts related to light and glare would be **less than significant**.

Mitigation Measures

None required.

3.1.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative impact analysis focuses on whether the proposed project's contribution to regional visual resource impacts would result in a cumulatively considerable environmental impact. The project's impact would be cumulatively considerable if, when considered with other existing, approved, proposed, and reasonably foreseeable development in the region, it would result in substantial alteration of the visual character of the region, significant impacts to scenic vistas, or substantial increases in daytime glare and nighttime lighting.

Other regionally existing, approved, proposed, or reasonably foreseeable projects that could be a factor in the proposed project's contribution to any increase in daytime glare or nighttime lighting would include Interstate 15, existing residences in close proximity to the project site, and proposed residential uses and mixed-use developments also in close proximity.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Scenic Resources, Existing Visual Character, and Light and Glare

Impact 3.1.4 Implementation of the proposed project, in combination with the existing adjacent residences and Interstate 15, would result in a less than cumulatively considerable contribution to any scenic resources and/or the alteration of the visual character and light and glare in the region. This impact is considered **less than cumulatively considerable**.

As determined in the discussion of direct project impacts in subsection 3.1.3, potential aesthetic impacts would be less than significant. The project site is not located in a City- or County-designated scenic vista. And with conformance to lighting requirements, including the Wildomar Municipal Code, the project would not adversely affect nighttime views in the area, including those for the Palomar Observatory. Other future projects would be required to comply with the same lighting regulations and to implement necessary mitigation for aesthetic impacts. Therefore, the project would result in **less than cumulatively considerable** impacts.

Mitigation Measures

None required.

3.1 AESTHETICS AND VISUAL RESOURCES

REFERENCES

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PCR Services Corporation. 2013. *Biological Resources Assessment and Western Riverside County MSHCP Consistency Analysis: Prielipp Road APN 380-250-023*.

Wildomar, City of. 2008. *City of Wildomar General Plan*.

3.2 AIR QUALITY

This section includes a description of existing air quality conditions, a summary of applicable regulations, a description of existing air quality conditions, and an analysis of potential air quality impacts associated with the proposed project consistent with recommendations provided by the South Coast Air Quality Management District during the public comment period for the Notice of Preparation for the project (see **Appendix 1.0**). Mitigation measures are recommended, as necessary, to reduce significant air quality impacts. This air quality analysis and the associated modeling were conducted by Urban Crossroads in 2015 (see **Appendix 3.2**).

3.2.1 EXISTING SETTING

SOUTH COAST AIR BASIN

South Coast Air Basin Characteristics

The project site is located in the South Coast Air Basin (SCAB), a 6,745-square-mile region that includes portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. The SCAB is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards.

Regional Climate

The regional climate significantly influences the air quality in the SCAB. The annual average temperatures throughout the air basin vary from the low to middle 60s (degrees Fahrenheit (°F)). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate in the air basin can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of the climate in the SCAB. Humidity restricts visibility in the air basin, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately 9 inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB, with frequency being higher near the coast.

Due to the air basin's generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the

3.2 AIR QUALITY

year, there are approximately 10 hours of possible sunshine, and on the longest day of the year, approximately 14.5 hours of possible sunshine.

The importance of wind to air pollution is considerable. Wind direction and speed determine the horizontal dispersion and transport of air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over Southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low-level cyclonic (counterclockwise) flow centered over Santa Catalina Island that results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, two distinct temperature inversion structures control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing, which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxide and carbon monoxide from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

Wind Patterns and Project Location

The distinctive climate of the project area and the SCAB is determined by its terrain and geographical location. The basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light, although the speed is somewhat greater during the dry summer months than during the rainy winter season.

Existing Air Quality

Existing air quality is measured based on ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) currently in effect are shown in **Table 3.2-1**.

The determination of whether a region’s air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in **Table 3.2-1**. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for ozone (O₃), carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and particulate matter (PM₁₀ and PM_{2.5}) are not equaled or exceeded at any time in any consecutive three-year period, and the federal standards (other than O₃, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O₃ standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

**TABLE 3.2-1
STATE AND NATIONAL CRITERIA POLLUTANT STANDARDS**

Pollutant	Averaging Time	California Standards	National Standards
Ozone	8 Hour	0.070 ppm (137 µg/m ³)	0.075 ppm
	1 Hour	0.09 ppm (180 µg/m ³)	—
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m ³)	100 ppb
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)
Sulfur Dioxide	24 Hour	0.04 ppm (105 µg/m ³)	N/A
	3 Hour	—	N/A
	1 Hour	0.25 ppm (665 µg/m ³)	75 ppb
Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	N/A
	24 Hour	50 µg/m ³	150 µg/m ³
Particulate Matter – Fine (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³
	24 Hour	N/A	35 µg/m ³
Sulfates	24 Hour	25 µg/m ³	N/A
Lead	Calendar Quarter	N/A	1.5 µg/m ³
	30 Day Average	1.5 µg/m ³)	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	N/A
Vinyl Chloride (chloroethene)	24 Hour	0.01 ppm (26 µg/m ³)	N/A
Visibility-Reducing Particles	8 Hour (10:00 to 18:00 PST)	—	N/A

Source: *Urban Crossroads 2015a*

Notes: ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter

3.2 AIR QUALITY

Regional Air Quality

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2012, the federal and state standards were exceeded on one or more days for O₃, PM₁₀, and PM_{2.5} at most monitoring locations. No areas of the SCAB exceeded federal or state standards for SO₂, CO, or sulfates. See **Table 3.2-2** for attainment designations for the Riverside County portion of the SCAB.

**TABLE 3.2-2
ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE RIVERSIDE COUNTY PORTION OF THE SOUTH COAST AIR BASIN**

Pollutant	State	Federal
Ozone (O ₃)	Nonattainment	Nonattainment
Coarse Particulate Matter (PM ₁₀)	Nonattainment	Attainment
Fine Particulate Matter (PM _{2.5})	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead	Unclassified/Attainment	Unclassified/Attainment

Source: CARB 2013, 2014

Local Air Quality

The nearest long-term air quality monitoring in relation to the project for O₃, CO, and NO₂ is carried out by the SCAQMD at the Lake Elsinore monitoring station approximately 8 miles northwest of the project site. Data for coarse particulates (PM₁₀) was obtained from the Perris Valley monitoring station located approximately 13.5 miles north of the project site. Data for ultrafine particulates (PM_{2.5}) was obtained from the Metropolitan Riverside County 2 monitoring station, located approximately 26.25 miles northwest of the project site. It should be noted that the Perris Valley and Metropolitan Riverside County monitoring stations were utilized in lieu of the Lake Elsinore monitoring station only where data was not available from the Lake Elsinore monitoring station, the nearest monitoring station to the project site. **Table 3.2-3** show the number of days standards were exceeded for the study area from 2011 through 2013. Additionally, data for SO₂ has been omitted, as attainment is regularly met in the SCAB and few monitoring stations measure SO₂ concentrations.

**TABLE 3.2-3
PROJECT AREA AIR QUALITY MONITORING SUMMARY 2011–2013**

Pollutant	Standard	Year		
		2011	2012	2013
Ozone (O₃) – nonattainment for state and federal standards¹				
Maximum 1-Hour Concentration (ppm)	—	0.133	0.111	0.102
Maximum 8-Hour Concentration (ppm)	—	0.106	0.089	0.082
Number of Days Exceeding State 1-Hour Standard	>0.09 ppm	19	10	—
Number of Days Exceeding State 8-Hour Standard	>0.07 ppm	45	32	—
Number of Days Exceeding Federal 1-Hour Standard	>0.12 ppm	1	0	0
Number of Days Exceeding Federal 8-Hour Standard	>0.075 ppm	1	17	3
Number of Days Exceeding Health Advisory	≥0.15 ppm	28	0	0
Carbon Monoxide (CO) – attainment for state and federal standards²				
Maximum 1-Hour Concentration (ppm)	—	1.7	2.7	0.7
Maximum 8-Hour Concentration (ppm)	—	0.7	0.7	0.4
Number of Days Exceeding Federal/State 8-Hour Standard	>20 ppm	0	0	0
Number of Days Exceeding State 1-Hour Standard	>9.0 ppm	0	0	0
Number of Days Exceeding State 1-Hour Standard	>35 ppm	0	0	0
Nitrogen Dioxide (NO₂) – nonattainment for state standard, attainment for federal standard¹				
Maximum 1-Hour Concentration (ppm)	—	0.0503	0.048	0.038
Annual Arithmetic Mean Concentration (ppm)	—	0.0096	0.0102	—
Number of Days Exceeding State 1-Hour Standard	>0.18 ppm	0	0	0
Respirable Particulate Matter (PM₁₀) – nonattainment for state and federal standards²				
Maximum 24-Hour Concentration (µg/m ³)	—	65	62	70
Annual Arithmetic Mean (µg/m ³)	—	60	26.5	—
Number of Samples	—	3	60	57
Number of Samples Exceeding State Standard	>50 µg/m ³	0	1	—
Number of Samples Exceeding Federal Standard	>150 µg/m ³	65	0	0
Fine Particulate Matter (PM_{2.5}) – nonattainment for state and federal standards³				
Maximum 24-Hour Concentration (µg/m ³)	—	51.6	30.2	33.4
Annual Arithmetic Mean (µg/m ³)	—	11.8	11.4	11.6
Number of Samples	—	112	104	26
Number of Samples Exceeding Federal 24-Hour Standard	>35µg/m ³	2	2	0

Source: Urban Crossroads 2015a

Notes: µg/m³ = micrograms per cubic meter; ppm = parts per million

1. Lake Elsinore (SRA 25) monitoring station used unless otherwise noted.

2. Perris Valley (SRA 24) monitoring station used.

3. Metropolitan Riverside County 2 (SRA 23) monitoring station used.

3.2 AIR QUALITY

Criteria pollutants are pollutants that are regulated through the development of human health-based and/or environmentally based criteria for setting permissible levels. Examples of sources and effects of the criteria pollutants are identified in **Table 3.2-4**.

**TABLE 3.2-4
CRITERIA AIR POLLUTANTS SUMMARY OF COMMON SOURCES AND EFFECTS**

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O ₃)	Formed by a chemical reaction between volatile organic compounds (VOC) and nitrous oxides (NO _x) in the presence of sunlight. VOCs are also commonly referred to as reactive organic gases (ROGs). Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.
Particulate Matter (PM ₁₀ & PM _{2.5})	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO ₂)	A colorless, nonflammable gas formed when fuel containing sulfur is burned; when gasoline is extracted from oil; or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead (Pb)	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CAPCOA 2011

TOXIC AIR CONTAMINANTS

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic

based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity, including compounds such as benzene, ethylene dibromide, hexavalent chromium, cadmium, and vinyl chloride. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

To date, the California Air Resources Board (CARB) has designated nearly 200 compounds as toxic air contaminants. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds, one of the most important in Southern California being particulate matter from diesel-fueled engines. In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a toxic air contaminant. Previously, the individual chemical compounds in the diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

In 2008, the SCAQMD updated a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, accounting for 84 percent of the air toxics risk (SCAQMD 2008).

ODORS

The science of odor as a health concern is still new. Merely identifying the hundreds of gaseous compounds that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eyes, nose, and throat, which can reduce respiratory volume. Second, some of the gases that cause odors, such as reactive organic gases, can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

3.2.2 REGULATORY FRAMEWORK

FEDERAL

The US Environmental Protection Agency (EPA) is responsible for setting and enforcing the national ambient air quality standards for the criteria pollutants O₃, CO, nitrous oxides (NO_x), SO₂, PM₁₀, and lead. The EPA has jurisdiction over emissions sources that are under the authority of the federal government, including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states

3.2 AIR QUALITY

other than California. Automobiles sold in California must meet CARB's stricter emission requirements.

The federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards and the NAAQS, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the Clean Air Act identify specific emission reduction goals for areas not meeting the NAAQS and require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions), as opposed to other sections of the act such as Title II (Aircraft Emissions Standards) and Title III (Vapor Recovery for Small Business Marketers of Petroleum Project), which are not applicable to the proposed project.

Title I provisions were established with the goal of attaining the national ambient air quality standards for the following criteria pollutants: O₃, NO₂, SO₂, PM₁₀, CO, PM_{2.5}, and lead. The NAAQS were amended in July 1997 to include an additional standard for O₃ and to adopt a standard for PM_{2.5}. **Table 3.2-1** (previously presented) provides the NAAQS in the South Coast Air Basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_x. NO_x is a collective term that includes all forms of nitrogen oxides (NO, NO₂, NO₃), which are emitted as byproducts of the combustion process.

STATE

CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal Clean Air Act, and regulating emissions from consumer products and motor vehicles. The California Clean Air Act mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the California ambient air quality standards for all pollutants for which the federal government has national ambient air quality standards and in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as attainment or nonattainment for each CAAQS.

Serious nonattainment areas are required, pursuant to the Clean Air Act, to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources.
- Development of control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development).
- A district permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions.
- Implementation of reasonably available transportation control measures and assurances of a substantial reduction in growth rate of vehicle trips and miles traveled.
- Significant use of low emissions vehicles by fleet operators.
- Sufficient control strategies to achieve a 5 percent or more annual reduction in emissions or 15 percent or more in a period of three years for reactive organic gases (ROGs), NO_x, CO, and PM₁₀. However, air basins may use an alternative emission reduction strategy that achieves a reduction of less than 5 percent per year under certain circumstances.

AIR QUALITY MANAGEMENT PLANNING

Currently, the national and California ambient air quality standards for O₃, PM₁₀, PM_{2.5}, and NO₂ are exceeded in most parts of the South Coast Air Basin. In response, the SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and project consistency with the AQMP is provided below.

South Air Quality Management District Rules and Regulations

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. The agency's primary responsibility is ensuring that the federal and state ambient air quality standards are attained and maintained in the SCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The following is a list of noteworthy SCAQMD rules that are required of the proposed project during construction activities:

- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

3.2 AIR QUALITY

- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement Best Available Control Measures for all sources and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. Examples of PM₁₀ suppression techniques are summarized below.
 - a. Portions of the construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized in a manner acceptable to the City.
 - b. All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
 - c. All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - d. The area disturbed by clearing, grading, earth moving, or excavation operations will be minimized at all times.
 - e. Where vehicles leave the construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.
 - f. Installation and utilization of a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - g. Apply water to active portions of the site, including unpaved roads, in sufficient quantity.
- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.

3.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines, air quality impacts are considered significant if implementation of the proposed project would:

- 1) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- 2) Conflict with or obstruct implementation of an applicable air quality plan.
- 3) Expose sensitive receptors to substantial pollutant concentrations.
- 4) Create objectionable odors affecting a substantial number of people.

- 5) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized in **Table 3.2-5**. The SCAQMD's (2009) CEQA Air Quality Significance Thresholds indicate that any projects in the South Coast Air Basin with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

**TABLE 3.2-5
MAXIMUM DAILY EMISSIONS THRESHOLDS**

Pollutant	Construction	Operational
NO _x	100 lbs/day	55 lbs/day
ROG	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Source: *Urban Crossroads 2015a*

Furthermore, based on the SCAQMD's (1993) CEQA Air Quality Handbook, project impacts would be significant if they exceed the following California standards for localized CO concentrations:

- 1-hour CO standard of 20.0 parts per million (ppm)
- 8-hour CO standard of 9.0 ppm

Localized Significance Thresholds

In addition to CO hotspot analysis, the SCAQMD developed localized significance thresholds (LSTs) for emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at new development sites (off-site mobile source emissions are not included the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent national or state ambient air quality standard. LSTs are based on the ambient concentrations of that pollutant within the project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb 5 acres and less daily. Wildomar is located in SCAQMD SRA 25. **Table 3.2-6** shows the localized significance thresholds for the project site with sensitive receptors located within 82 feet (25 meters) of a project site.

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**TABLE 3.2-6
LOCAL SIGNIFICANCE THRESHOLD (LST) IMPACTS – POUNDS PER DAY**

Project	Nitrogen Oxide	Carbon Monoxide	PM ₁₀	PM _{2.5}
1 Acre (construction/operations)	279.67/NA	1,388.33/NA	9/NA	5.33/NA

Source: *Urban Crossroads 2015a*

METHODOLOGY

The evaluation of project-related air quality impacts is primarily based on the analysis conducted by Urban Crossroads in 2015 (see **Appendix 3.2**). The resultant GHG emissions of the proposed project were calculated using the California Emissions Estimator Model (CalEEMod), version 2013.2.2, computer program (**Appendix 3.2**). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for use by government agencies, land use planners, and environmental professionals.

IMPACTS AND MITIGATION MEASURES

Air Quality Standard or Air Quality Violation: Short-Term Construction Emissions (Standard of Significance 1)

Impact 3.2.1 Construction-generated emissions would not contribute substantially to an existing or projected air quality violation. This impact is considered **potentially significant**.

Construction associated with the proposed project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern in the project area include ozone-precursor pollutants (i.e., ROG and NO_x) and PM₁₀. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact.

Construction results in the temporary generation of emissions ensuing from site grading and excavation, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water. Construction-related emissions are expected from site preparation, grading, building construction, paving, architectural coatings, and construction workers commuting.

Construction-Related Regional Air Quality Impacts

The estimated maximum daily construction emissions are summarized in **Table 3.2-7**. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario should construction occur anytime after the respective dates since emission factors for construction decrease as the analysis year increases. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per the CEQA Guidelines. The site-specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity was developed based on a 2017 opening year. Associated equipment was estimated based on CalEEMod

defaults. Please refer to specific detailed modeling inputs/outputs contained in **Appendix 3.2**. The emissions projections contained in **Table 3.2-7** account for the anticipated soil export of 34,497 cubic yards of material.

TABLE 3.2-7
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – WITHOUT MITIGATION
(POUNDS PER DAY)

Source	Reactive Organic Gases (Ozone Precursor)	Nitrogen Oxide (Ozone Precursor)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Year One Construction	8.08	101.22	64.73	0.11	21.41	12.87
Year Two Construction	7.86	96.92	63.09	0.10	16.34	8.30
Year Three Construction	5.02	36.74	38.97	0.07	5.39	2.93
Year Four Construction	96.33	20.36	15.49	0.02	1.31	1.09
Maximum Daily Emissions	96.33	101.22	64.73	0.11	21.41	12.87
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	Yes	Yes	No	No	No	No

Source: *Urban Crossroads 2015a*

As shown in **Table 3.2-7**, emissions resulting from project construction would exceed applicable thresholds for ROG and NO_x emissions. Therefore, construction-related regional air quality impacts are considered potentially significant and construction activities associated with the project are subject to mitigation. With implementation of mitigation measures **MM 3.2.1a** and **MM 3.2.1b**, shown below, construction activity emissions would not exceed the numerical thresholds established by the SCAQMD for criteria pollutants as demonstrated in **Table 3.2-8**.

TABLE 3.2-8
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – WITH MITIGATION
(POUNDS PER DAY)

Source	Reactive Organic Gases (Ozone Precursor)	Nitrogen Oxide (Ozone Precursor)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Year One Construction	4.83	79.26	50.38	0.11	8.83	5.42
Year Two Construction	5.45	75.97	49.53	0.10	9.53	4.80
Year Three Construction	5.02	36.74	38.97	0.07	5.39	2.93
Year Four Construction	58.05	20.36	15.49	0.02	1.31	1.09
Maximum Daily Emissions	58.05	79.26	50.38	0.11	9.53	5.42
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: *Urban Crossroads 2015a*

3.2 AIR QUALITY

Construction-Related Localized Air Quality Impacts

As previously stated, the SCAQMD has established that impacts to air quality are significant if there is a potential to contribute to or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as localized significance thresholds (LSTs), which represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor.

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of the project are above or below state standards. In the case of CO and NO₂, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. In the case of PM₁₀ and PM_{2.5}, project emissions are considered significant if they increase ambient concentrations by a measurable amount.

The SCAQMD established localized significance thresholds in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the localized significance thresholds as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted localized significance thresholds that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD Final Localized Significance Threshold Methodology.

The SCAQMD issued guidance on applying CalEEMod to localized significance thresholds. Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, **Table 3.2-9** is used to determine the maximum daily disturbed-acreage for comparison to LSTs.

TABLE 3.2-9
EQUIPMENT-SPECIFIC GRADING RATES

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Graders	1	0.5	8	0.5
	Rubber-Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1.0	8	2.0
Total Acres Graded per Day					3.0
Applicable LST Mass Rate Look-Up Table					3.0 acres

Source: *Urban Crossroads 2015a*

For this project, the appropriate source receptor area (SRA) for the localized significance thresholds is the Lake Elsinore area (SRA 25) since this area includes the project site. Localized

significance thresholds apply to CO, NO₂, PM₁₀, and PM_{2.5}. The SCAQMD produced look-up tables for projects that disturb less than or equal to 5 acres.

The SCAQMD’s methodology clearly states that “off-site mobile emissions from the project should not be included in the emissions compared to LSTs.” Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod “on-site” emissions outputs were considered. The nearest existing sensitive receptor to the development boundaries is located adjacent to the proposed project. However, the methodology explicitly states, “It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.” As such, LSTs for receptors at 25 meters are utilized in this analysis.

Table 3.2-10 presents the results of localized emissions during construction activity.

**TABLE 3.2-10
LOCALIZED SIGNIFICANCE SUMMARY – CONSTRUCTION – WITHOUT MITIGATION (POUNDS PER DAY)**

Activity	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions (on-site)	80.72	51.58	12.61	7.17
SCAQMD Localized Threshold	279.67	1,388.33	9	5.33
Significant?	No	No	Yes	Yes

Source: Urban Crossroads 2015a

As shown in Table 3.2-10, emissions resulting from project construction would exceed applicable LSTs for PM₁₀ and PM_{2.5}. Therefore, construction-related LST impacts are considered potentially significant and construction activities associated with the project are subject to mitigation. With implementation of mitigation measure MM 3.2.1b, shown below, construction activity emissions would not exceed the LSTs established by the SCAQMD as demonstrated in Table 3.2-11.

**TABLE 3.2-11
LOCALIZED SIGNIFICANCE SUMMARY – CONSTRUCTION – WITH MITIGATION (POUNDS PER DAY)**

Activity	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions (on-site)	58.76	37.24	5.77	3.64
SCAQMD Localized Threshold	279.67	1,388.33	9	5.33
Significant?	No	No	No	No

Source: Urban Crossroads 2015a

As described, with the imposition of mitigation measures MM 3.2.1a and MM 3.2.1b construction-related air quality impacts are considered to be **less than significant**.

Mitigation Measures

MM 3.2.1a Only “zero-volatile organic compounds” paints (no more than 150 grams per liter of VOC) and/or high pressure low volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.

Timing/Implementation: During Construction

3.2 AIR QUALITY

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

MM 3.2.1b All rubber-tired dozers and scrapers during the grading phase of construction shall be California Air Resources Board (CARB) Tier 2 Certified or better.

Timing/Implementation: During the grading phase of construction

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

Air Quality Standard or Air Quality Violation: Long-Term Operational Emissions (Standard of Significance 1)

Impact 3.2.2 The proposed project will not result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards for ozone and coarse and fine particulate matter. This impact is considered to be **less than significant**.

Operational activities associated with the proposed project will result in emissions of ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. Operational emissions would be expected from the following primary sources: vehicles, combustion emissions associated with natural gas and electricity, fugitive dust related to vehicular travel, landscape maintenance equipment, emissions from consumer products, and architectural coatings.

Vehicles

Project operational (vehicular) impacts are dependent on both overall daily vehicle trip generation and the effect of the project on peak-hour traffic volumes and traffic operations in the vicinity of the project. The project-related operational air quality impact centers primarily on the vehicle trips generated by the project. Trip characteristics available from the traffic impact analysis prepared for the project were utilized in this analysis.

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from off-site generation of electricity are generally excluded from the evaluation of significance, and only natural gas use is considered.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of PM₁₀ and PM_{2.5} emissions due to the generation of road dust, break/tire-wear particulates, and road-wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawn mowers,

shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain project landscaping.

Consumer Products

Consumer projects include, but are not limited to, detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants.

Architectural Coatings

Over time, the buildings that are part of this project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of project maintenance.

Operational-Related Regional Air Quality Impacts

The project-related operational-related regional emissions burdens, along with a comparison of SCAQMD-recommended significance thresholds, are shown in **Table 3.2-12**.

**TABLE 3.2-12
OPERATIONAL-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (MAXIMUM EMISSIONS)
(POUNDS PER DAY)**

Source	Reactive Organic Gases (Ozone Precursor)	Nitrogen Oxide (Ozone Precursor)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Summer Emissions						
Area Source Emissions	20.40	0.24	20.90	0.00	0.45	0.45
Energy Source Emissions	0.10	0.86	0.37	0.00	0.07	0.07
Mobile Emissions	4.05	12.79	45.28	0.12	8.36	2.36
Maximum Daily Emissions	24.54	13.89	66.55	0.13	8.88	2.87
Significant Impact Threshold (pounds per day)	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Winter Emissions						
Area Source Emissions	20.40	0.24	20.90	0.00	0.45	0.45
Energy Source Emissions	0.10	0.86	0.37	0.00	0.07	0.07
Mobile Emissions	3.95	13.33	42.24	0.11	8.37	2.36
Maximum Daily Emissions	24.44	14.43	63.51	0.12	8.88	2.87
Significant Impact Threshold (pounds per day)	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: Urban Crossroads 2015a

3.2 AIR QUALITY

As shown in **Table 3.2-12**, emissions resulting from project operations will not exceed the SCAQMD regional criteria pollutant thresholds for operational activity. As a result, this impact would be considered less than significant.

Operational-Related Localized Air Quality Impacts

The proposed project involves the construction and operation of a new 86-unit senior living facility and 138 townhomes. In addition, the proposed project would include a recreation/leasing building, a swimming pool, and parking lots. According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of stationary source emissions, no long-term localized significance threshold analysis is needed, as there would be no impact.

For the reasons identified, operations-related air quality impacts are considered to be **less than significant**.

Mitigation Measures

None required.

Regional Air Quality Management Planning (Standard of Significance 2)

Impact 3.2.3 Land use activities associated with the proposed project would not conflict with or obstruct implementation of regional air quality management planning. This impact is **less than significant**.

As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the project site is located in the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the air basin is in nonattainment. In order to reduce such emissions, the SCAQMD drafted the 2012 Air Quality Management Plan. The 2012 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2012 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for various source categories, and the Southern California Association of Governments' (SCAG) latest growth forecasts (SCAQMD 2013). (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.)

Criteria for determining consistency with the AQMP are defined by the following indicators:

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP or increments based on the years of the project buildout phase.

The violations to which Consistency Criterion No. 1 refer are the California ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). As evaluated under Impacts 3.2.1 and 3.2.2, the project would not exceed the construction or operational standards and therefore would not violate air quality standards. Therefore, the impact is less than significant.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. If a project results in a change in a designated land use and corresponding substantial increases in vehicle miles traveled (VMT), the resultant increase in VMT may be unaccounted for in regional emissions inventories contained in the AQMP, which as stated are based on local planning documents and general plans. Substantial increases in VMT that are not accounted for in the emissions inventory of these air quality plans may conflict with these air quality plans and therefore result in a contribution to the region's existing air quality nonattainment status. The proposed project will amend the City of Wildomar General Plan by changing the land use designation from Business Park (BP) to Commercial Retail (CR) on 7.73 net acres (southerly portion of the site) and to High Density Residential (HDR) on 10.68 net acres (northerly portion of the site). As described in Section 3.11, Traffic and Circulation, it is estimated that 1,129 average daily automobile trips would be generated as a result of the project. The existing land use designation on the site would allow the development of office space. According to the Institute of Transportation Engineers Trip Generation manual (2008), office space generates 11.01 trips per 1,000 square feet. Based on the ITE's estimate, if the project were to be developed at a FAR of 0.35 resulting in 304,920 square feet of development, total daily trips generated would be 3,357. Therefore, the proposed project would reduce potential traffic as a result of the change from business park to senior living and residential land uses. The additional homes are consistent with the city's projected population growth and therefore do not exceed the population or job growth projections used by the SCAQMD to develop the Air Quality Management Plan. Therefore, the proposed project would result in no impact to the second criterion.

This impact is **less than significant**.

Mitigation Measures

None required.

Substantial Carbon Monoxide Pollutant Concentrations (Standard of Significance 3)

Impact 3.2.4 The proposed project will not contribute to localized concentrations of carbon monoxide that would exceed applicable ambient air quality standards. This is considered to be a **less than significant** impact.

3.2 AIR QUALITY

A CO “hotspot” analysis is needed to determine whether the change in the level of service (LOS) of an intersection as a result of the proposed project would have the potential to result in exceedances of the California or national ambient air quality standards (CAAQS or NAAQS).

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the project vicinity have steadily declined.

Accordingly, with the steadily decreasing carbon monoxide emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for carbon monoxide exceedances in the air basin. CO attainment was thoroughly analyzed as part of the SCAQMD’s 2003 Air Quality Management Plan update (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region’s unique meteorological conditions and the increasingly stringent CO emissions standards, carbon monoxide modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hotspot analysis was conducted for four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The analysis in the 1992 CO Plan did not result in a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the level of service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be LOS E at peak morning traffic and LOS F at peak afternoon traffic. For the proposed project and under cumulative project conditions, the highest number of average daily trips would be 54,000 on Clinton Keith Road between George Avenue and Interstate 15 (Urban Crossroads 2015b). This highest cumulative project-area average daily traffic is lower than the values studied in the 1992 CO Plan.

Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where air does not mix—in order to generate a significant CO impact (Urban Crossroads 2013a). At buildout of the project, the highest number of peak-hour trips would be 5,162 at the Inland Valley Drive/Clinton Keith Road intersection (Urban Crossroads 2015b).

For the reasons described, CO hotspots are not an environmental impact of concern for the proposed project. The proposed project would not produce the volume of peak-hour traffic required to generate a CO hotspot. Localized air quality impacts related to mobile-source emissions would therefore be **less than significant**.

Mitigation Measures

None required.

Toxic Air Contaminants (Standard of Significance 3)

Impact 3.2.5 The proposed project would not result in exposure of sensitive receptors to substantial toxic emissions. This impact is considered **less than significant**.

The potential impact of project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child-care centers, and athletic facilities can also be considered sensitive receptors.

Potential sensitive receptors in the project vicinity include existing adjacent land uses. As previously discussed in the LST analysis, for analysis purposes, potential impacts to sensitive receptors were analyzed accounting for a distance of 25 meters from the project boundary as a conservative measure. Results of the LST analysis indicate that the proposed project will not exceed the SCAQMD localized significance thresholds, and a less than significant impact is expected during construction activity. Therefore, sensitive receptors would not be subject to a significant air quality impact during project construction.

The proposed project would not result in a significant CO hotspot as a result of project-related traffic during ongoing operations. Thus, a less than significant impact to sensitive receptors during operational activity is expected.

There are no other potential sources of air toxics in the vicinity of the project. Toxic air contaminant impacts to sensitive receptors are considered to be **less than significant**.

Mitigation Measures

None required.

Exposure of Sensitive Receptors to Odorous Emissions (Standard of Significance 4)

Impact 3.2.6 Development of the proposed project would not result in exposure of sensitive receptors to substantial odorous emissions. This impact is considered to be **less than significant**.

The potential for the project to generate objectionable odors has been considered. Land uses generally associated with odor complaints include agricultural uses (livestock and farming), wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities.

The project does not contain land uses typically associated with emissions of objectionable odors. Potential odor sources associated with the proposed project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities, and the temporary storage of typical solid waste (refuse) associated with the proposed project's (long-term operational) uses. It should be noted that any construction odor emissions generated would be temporary, short term, and intermittent in nature and would cease on completion of the respective phase of construction activity and are thus considered less than significant. It is expected that project-generated refuse would be stored in covered

3.2 AIR QUALITY

containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed project construction and operations would be **less than significant**.

Mitigation Measures

None required.

3.2.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for air quality includes the entirety of the SCAB. The SCAB is currently designated nonattainment for O₃, PM₁₀, and PM_{2.5} under state standards and for O₃ and PM_{2.5} under federal standards. Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Contribution to Nonattainment Criteria Pollutants (Standard of Significance 5)

Impact 3.2.7 Construction of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in the South Coast Air Basin, would not significantly contribute to cumulative increases in emissions of criteria air pollutants that could contribute to future concentrations of pollutants for which the region is currently designated nonattainment. This impact would be considered **less than cumulatively considerable**.

The SCAQMD's approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and California Clean Air Acts. As discussed earlier, the proposed project would be consistent with the Air Quality Management Plan, which is intended to bring the SCAB into attainment for all criteria pollutants, since the project-specific evaluation of emissions presented in the preceding analysis demonstrates that the project would not result in exceedances of any applicable thresholds which are designed to assist the region in attaining the applicable state and national ambient air quality standards. Furthermore, the project would comply with SCAQMD's Rule 403 (fugitive dust control) during construction, as well as all other adopted AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements would also be imposed on all projects basin-wide, which would include all related projects. As such, project impacts would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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3.2 AIR QUALITY

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3.3 BIOLOGICAL AND NATURAL RESOURCES

3.3 BIOLOGICAL AND NATURAL RESOURCES

This section describes the existing biological resources, including special-status species and sensitive habitat known to occur and/or have the potential to occur in the project study area (PSA). The PSA is defined as the on- and off-site areas of the project. In addition, the section includes a summary of the regulations and programs that provide protective measures to special-status species, an analysis of impacts to biological resources that could result from project implementation, and a discussion of mitigation measures necessary to reduce impacts to a less than significant level, where feasible.

Much of the information in this section is based on the report prepared by PCR Services Corporation in 2013 titled Biological Resources Assessment and Western Riverside County MSHCP Consistency Analysis: Prielipp Road APN 380-250-023. This report can be found in **Appendix 3.3**.

An NOP comment letter from the California Department of Fish and Wildlife (CDFW) was received on February 10, 2015. The letter made recommendations on content that the City should include in the DEIR. These comments were taken into consideration during the preparation of this EIR section.

3.3.1 EXISTING SETTING

Several steps were taken to characterize the environmental setting in the project vicinity. First, project-related documentation was reviewed to collect site-specific data regarding habitat suitability for special-status species, as well as the identification of potentially jurisdictional waters. Additional information was obtained from a variety of outside data sources and can be found in the reference list. Lastly, preliminary database searches were performed on the following websites to identify special-status species with the potential to occur in the area:

- US Fish and Wildlife Service (USFWS) Information Planning and Conservation (IPaC) System (2015a)
- USFWS Critical Habitat Portal (2015b)
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) (2015a)
- California Native Plant Society (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (2015)
- Riverside County Integrated Project (RCIP) Conservation Summary Report Generator (2015)

The USFWS IPaC System was queried to identify special-status species within USFWS jurisdiction that have the potential to occur in the project study area. In addition, the USFWS Critical Habitat Portal was queried to identify designated critical habitat within 1 mile of the PSA. A search of the CNDDDB provided a list of known occurrences for special-status species within the Murrieta, California, US Geological Survey (USGS) 7.5-minute quadrangle (quad) and all adjacent quads (Temecula, Pechanga, Fallbrook, Bachelor Mtn., Wildomar, Lake Elsinore, Winchester, and Romoland). The CNPS database was queried to identify special-status plant species with the potential to occur in the aforementioned quads. Raw data from the database queries is provided in **Appendix 3.3**. Please see the Listed and Special-Status Plant and Animal Species subsection below for a summary of the database search results and conclusions regarding the potential for each species to be impacted by project-related activities.

3.3 BIOLOGICAL AND NATURAL RESOURCES

REGIONAL SETTING

The PSA is located in the Southern California Mountains and Valleys ecological section of the American Semidesert and Desert ecological province (McNab et al. 2007). This province is characterized by long, hot summers and mild winters with a small amount of precipitation. The landscape consists of plains from below sea level to low mountain ranges with sparse vegetation of dwarf-shrubland, along with scattered occurrences of shrubland and woodland at higher elevations (McNab et al. 2007). In the Southern California Mountains and Valleys section, the terrain consists of narrow ranges and broad fault blocks, alluviated lowlands, and dissected westward-sloping granitic lowlands. Soils are derived from sedimentary and granitic rocks as well as alluvial deposits. The vegetation is characterized by chaparral shrubland, oak woodland, and at higher elevations fir and pine cover types (McNab et al. 2007).

PHYSICAL SETTING

The topography of the site consists of gently rolling hills. The site slopes gently in a northeast to southwest direction, with the elevations ranging from approximately 1,330 feet above mean sea level (amsl) along the southwestern boundary to approximately 1,380 feet amsl along the northern boundary. One drainage feature traverses the PSA in a northeast to southwest direction and meanders on- and off-site along the central to southern end of the western boundary.

Soils mapped in the PSA consist of a mix of well-drained soils and include the following:

- Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes, eroded
- Hanford sandy loam, 2 to 15 percent slopes
- Monserate sandy loam, 8 to 15 percent slopes, eroded
- Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
- Placentia fine sandy loam, 5 to 15 percent slopes
- Ramona and Buren sandy loams, 15 to 25 percent slopes, severely eroded
- Ramona and Buren loams, 5 to 15 percent slopes, eroded
- Ramona and Buren loams, 5 to 25 percent slopes, severely eroded
- San Timoteo loam, 8 to 25 percent slopes, eroded (USDA 2015)

BIOLOGICAL SETTING

Based on the habitat accounts in Volume 2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (Riverside County 2003), the PSA is characterized primarily as annual grassland and coastal scrub, with patches of cropland, urban, and valley foothill riparian. PCR remapped the natural communities (land cover types) in 2013, using community descriptions based on Oberbauer (2008) and Holland (1986) codes. Much of the PSA is characterized as disturbed lands. Various scrub communities occur along the drainage that bisects the PSA. These cover types are described below and depicted in **Figure 3.3-1**. A map

showing the impacts to cover types as a result of project-related activities can be found in **Appendix 3.3**.

Buckwheat Scrub (Holland Code 32000)

California buckwheat scrub is an alliance of shrubland plants dominated by California buckwheat (*Eriogonum fasciculatum*). In coastal California, this community is usually one of the first to establish in mechanically disturbed areas. The pioneering California buckwheat community occurs along the northern edge of the PSA. In this area, the buckwheat scrub community is well developed with mature individuals that are closely spaced, with non-native grasses and forbs filling those spaces.

Buckwheat Scrub/Ruderal (Holland Codes: 32000/11000)

Buckwheat scrub/ruderal is a shrubland with an alliance of plants dominated or co-dominated by California buckwheat and primarily non-native ruderal vegetation. The buckwheat scrub/ruderal community is found in one small area in the northeastern portion of the PSA.

Chaparral (Holland Code: 37200)

Chamise (*Adenostoma fasciculatum*) is the most characteristic and widespread chaparral species in California. In chamise chaparral, the shrub accounts for at least half of the cover and the ground cover is sparse to intermittent. Chamise chaparral occurs in the southwestern portion of the PSA. The only shrub found in this community is chamise, and the associated species include understory species of brome grasses (*Bromus* spp.) and tocalote (*Centaurea melitensis*).

Riversidean Sage Scrub (Holland Code: 32700)

Riversidean sage scrub is the driest, most inland expression of the collection of sage scrub or coastal scrub series and ranges throughout Southern California. It typically occurs on steep slopes, severely drained soils, or clays that release soil moisture slowly. Typical stands of this type of sage scrub are fairly open and dominated by California sagebrush (*Artemisia californica*), California buckwheat, and foxtail chess (*Bromus madritensis* ssp. *rubens*). Additional species characteristic of this plant community include deerweed (*Acmispon glaber*), white sage (*Salvia apiana*), and black sage (*S. mellifera*).

The Riversidean sage scrub community in the PSA is primarily dominated by California buckwheat in addition to other species such as California sagebrush, deerweed, white sage, and an understory of ruderal species including California cholla (*Cylindropuntia californica*) and shortpod mustard (*Hirschfeldia incana*). Riversidean sage scrub was observed in the approximate central portion of the PSA only.

Riversidean Sage Scrub/Ruderal (Holland Codes: 32700/11000)

The plant species observed in the Riversidean sage scrub/ruderal areas were comparable to the Riversidean sage scrub areas described above for Riversidean sage scrub (Holland Code: 32700), with the exception that this community is characterized by a higher density of ruderal species and a lower density of native species due to disturbance. The Riversidean sage scrub/ruderal community was observed along the eastern-central boundary of the PSA.

3.3 BIOLOGICAL AND NATURAL RESOURCES

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HORIZONS



Legend

Project Site

Cover Type

Buckwheat Scrub (BWS)

Buckwheat Scrub / Ruderal (BWS/RUD)

Chamise Chaparral (CCH)

Developed (DEV)

Disturbed (DIS)

Riversidean Sage Scrub (RSS)

Riversidean Sage Scrub / Ruderal (RSS/RUD)

Ruderal (RUD)

Ruderal / Buckwheat Sage Scrub (RUD/BWS)

Ruderal / Riversidean Sage Scrub (RUD/RSS)

Source: PCR Services Corp (2013); City of Wildomar (2015); ESRI.

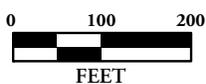


Figure 3.3-1
Land Cover

Ruderal (Holland Code: 11000)

Ruderal vegetation occurs in areas heavily disturbed by human activities, such as roadsides, graded fields, former agricultural areas, or dump sites. Typical plant species observed in this community included many brome grasses, tocalote, telegraph weed (*Heterotheca grandiflora*), shortpod mustard, and prickly Russian thistle (*Salsola tragus*). Ruderal areas occur along the southern boundary parallel to Prielipp Road and in the northeast corner of the PSA

Ruderal/Buckwheat Scrub (Holland Codes: 11000/32000)

The ruderal/buckwheat scrub community was observed to be dominated by the ruderal species described above for ruderal (Holland Code: 11000), with a higher density of California buckwheat. The California buckwheat species are scattered and at a low density (less than approximately 20 percent) in this community. The ruderal/buckwheat scrub occupies two small patches in the PSA, including one patch in the north-central portion and one patch in the southwestern corner.

Ruderal/Riversidean Sage Scrub (Holland Codes: 11000/32700)

The plant species observed in the ruderal/Riversidean sage scrub areas are comparable to the Riversidean sage scrub areas described above for Riversidean sage scrub (Holland Code: 32700), with the exception that this community is dominated by a high density of ruderal species and a lower density of native species due to disturbance. The ruderal/Riversidean sage scrub was observed along the western boundary of the PSA.

Disturbed (Holland Code: 11300)

Disturbed areas consist of regularly maintained areas that lack vegetation. Disturbed areas observed primarily include frequently disced fallow agricultural fields and dirt access roads. These areas occupy the majority of the PSA.

Developed (Holland Code: 12000)

Developed areas are paved or are unpaved, maintained areas that consist of compacted soils with no vegetation. The developed areas observed include a paved access road in the northeastern corner and Prielipp Road along the southern boundary.

JURISDICTIONAL FEATURES

Jurisdictional waters of the State and of the United States have a variety of functions that support plants and wildlife. Wetlands and other water features provide habitat, foraging, cover, and migration and movement corridors for both special-status and common species. In addition to habitat functions, these features provide physical conveyance of surface water flows capable of handling large stormwater events.

One ephemeral drainage bisects the PSA and meanders north to south for approximately 1,950 linear feet. The drainage is unvegetated and exhibits ephemeral flow from headwaters commencing in the foothills located approximately 1.5 miles north of the PSA. The drainage is in the Santa Margarita watershed and ultimately conveys runoff into an unnamed tributary to Murrieta Creek that joins Murrieta Creek approximately 1.6 miles southwest of the PSA. The drainage supports sandy loam soils associated with the Monserate soil series that are overlain by cobbles and gravels.

3.3 BIOLOGICAL AND NATURAL RESOURCES

No wetlands or other special aquatic sites occur within the PSA. Jurisdictional channel widths associated with US Army Corps of Engineers (USACE)/Regional Water Quality Control Board (RWQCB) jurisdictional waters average 2.5 feet based on the ordinary high water mark, while CDFW-regulated streambed widths range from 4 to 6 feet based on the top-of-bank condition.

SENSITIVE HABITATS

Sensitive habitats include areas of special concern to resource agencies, areas protected under the California Environmental Quality Act (CEQA), areas designated as sensitive natural communities by the CDFW, areas outlined in Section 160 of the California Fish and Game Code (FGC), areas regulated under Section 404 of the Clean Water Act (CWA), areas protected under the Porter-Cologne Act, federally designated critical habitat, and areas protected under local regulations and policies.

The USFWS defines critical habitat as a specific area that is essential for the conservation of a federally listed species and that may require special management considerations or protection. There are no designated critical habitat areas within or adjacent to the PSA.

While the site does not support any specific sensitive habitat types beyond the ephemeral drainage, it is within the following fee and survey areas as identified in the MSHCP:

- The Stephens' Kangaroo Rat Mitigation Fee Area (Riverside County Ordinance 663)
- The MSHCP Mitigation Fee Area (Riverside County Ordinance 810.2)
- The Burrowing Owl Survey Area (Figure 6-4 of the MSHCP)

WILDLIFE CORRIDORS

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link otherwise fragmented acres of undisturbed area. Maintaining the continuity of established wildlife corridors is important to sustain species with specific foraging requirements, preserve a species' distribution potential, and retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource.

Regional movement through the PSA to the surrounding vicinity immediately adjacent to the PSA is restricted in all directions because of the surrounding development and Interstate 15 (I-15). The PSA is situated approximately 0.75 miles from the foothills of the Sedco Hills located to the north, and approximately 0.4 miles northeast of I-15. Because the region is urbanized, the project site is immediately surrounded by commercial development to the northeast, suburban residential development to the southeast, and sparse rural residential development to the south. Vacant land occurs to the immediate east, north, and west, but developed areas and I-15 occur beyond these open areas, restricting potential wildlife movement.

One potential wildlife movement area was identified in the PSA, specifically the drainage that traverses the PSA in a northeast to southwest direction. The drainage appears to connect the Sedco Hills in the north to areas south of I-15. Due to the small size and the low-density vegetation cover, the drainage is not likely to provide a movement corridor for larger mammals that require dense vegetation cover and larger home range areas and dispersal distances.

The PSA is not in any cores or linkages identified by the MSHCP. The closest linkage to the PSA is Proposed Linkage 8 just over 1 mile to the north associated with the Sedco Hills. The closest Core areas are located just over 5 miles to the northwest (Proposed Extension of Existing Core 3, Lake Elsinore Soils), west (Existing Core B, Cleveland National Forest), south (Existing Core F, Santa Rosa Plateau), and east (Proposed Core 2, Antelope Valley). The PSA is also not within any linkages identified by the South Coast Missing Linkages document; the nearest linkage design identified is for the Palomar-San Jacinto-Santa Rosa Connection located approximately 16 miles to the east (South Coast Wildlands 2008). Since the PSA is not identified as a linkage by the MSHCP or South Coast Wildlands, and it does not support habitat that connects two or more habitat patches that would otherwise be fragmented or isolated from one another, the PSA is not considered a wildlife corridor. The project site may provide limited opportunities for wildlife movement, more likely for local wildlife movement as described below.

Movement on a smaller or “local” scale could occur within the PSA for species that are less restricted in movement pathway requirements or are adapted to urban areas, such as raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), and birds. The project site has been disturbed by prior human activities such as grading. Limited habitat within the project site therefore consists of primarily disturbed areas dominated by non-native species with patches of native vegetation including buckwheat, chamise chaparral, and Riversidean sage scrub. Although the habitat on-site is disturbed, it likely supports some wildlife movement within the PSA for foraging. Although the PSA supports live-in and movement habitat for species on a local scale, it likely provides little to no function to facilitate wildlife movement for wildlife species on a regional scale and is not identified as a regionally important dispersal or seasonal migration corridor.

LISTED AND SPECIAL-STATUS PLANT AND ANIMAL SPECIES

Candidate, sensitive, or special-status species are commonly characterized as species that are at potential risk or actual risk to their persistence in a given area or across their native habitat. These species have been identified and assigned a status ranking by governmental agencies such as the CDFW, the USFWS, and private organizations such as the CNPS. The degree to which a species is at risk of extinction is the determining factor in the assignment of a status ranking. Some common threats to a species’ or population’s persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion. For the purposes of this biological review, special-status species are defined by the following codes:

- Listed, proposed, or candidates for listing under the federal Endangered Species Act (ESA) (50 Code of Federal Regulations [CFR] 17.11 – listed; 61 Federal Register [FR] 7591, February 28, 1996, candidates)
- Listed or proposed for listing under the California Endangered Species Act (CESA) (FGC 1992 Section 2050 et seq.; 14 California Code of Regulations [CCR] Section 670.1 et seq.)
- Designated as Species of Special Concern by the CDFW
- Designated as Fully Protected by the CDFW (FGC Sections 3511, 4700, 5050, 5515)
- Species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380) including CNPS List Rank 1b and 2

3.3 BIOLOGICAL AND NATURAL RESOURCES

The results of the USFWS, CDFW, and CNPS database queries identified several special-status species with the potential to be impacted by project-related activities. **Table 3.3-1** provides a summary of all special-status species identified in the database results. All special-status species returned from the database queries are analyzed in **Table 3.3-1**, which provides a description of the habitat requirements for each species and conclusions regarding the potential for each species to occur in the PSA. The CNDDB results within 1 mile of the project are depicted on **Figure 3.3-2**. In addition, the query of the USFWS Critical Habitat Portal revealed that the PSA is not within or adjacent to any designated critical habitat.



HORIZONS

Map ID	Scientific Name	Common Name	Federal Listing	State Listing	Rare Plant Rank
1	<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	None	None	
2	<i>Artemisospiza belli belli</i>	Bell's sage sparrow	None	None	
3	<i>Aspidoscelis hyperythra</i>	orangethroat whiptail	None	None	
4	<i>Emys marmorata</i>	western pond turtle	None	None	
5	<i>Eremophila alpestris actia</i>	California horned lark	None	None	
6	<i>Euphydryas editha quino</i>	quino checkerspot butterfly	Endangered	None	
7	<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None	None	
8	<i>Navarretia fossalis</i>	spreading navarretia	Threatened	None	1B.1
9	<i>Poliotila californica californica</i>	coastal California gnatcatcher	Threatened	None	
10	<i>Spea hammondii</i>	western spadefoot	None	None	
11	<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	Endangered	None	

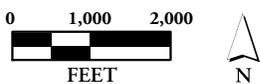
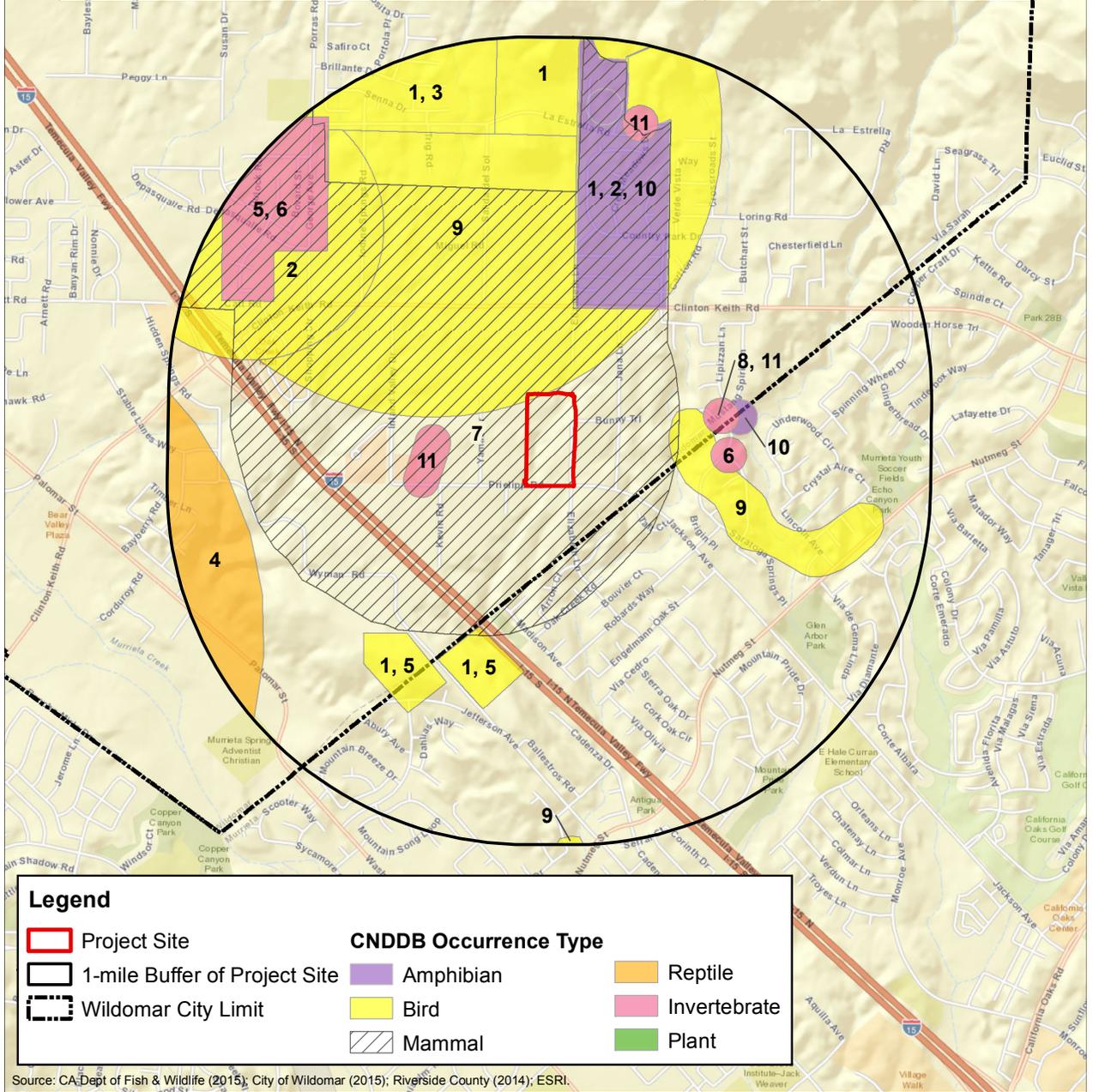


Figure 3.3-2
CNDDB

**TABLE 3.3-1
SPECIAL-STATUS SPECIES SUMMARY**

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
Plants								
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	—	—	1B.1	Sandy soils in chaparral, coastal scrub and desert dunes. Elev: 246–5,249 feet (75–1,600 m). Blooms: Jan–Sept (CNPS 2015).	No	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest occurrence is over 5 miles away (CDFW 2015c).
<i>Allium munzii</i>	Munz’s onion	FE	ST	1B.1	Mesic clay soils in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, as well as valley and foothill grassland. Elev: 981–3,531 feet (299–1,076 m). Blooms: March–May (CNPS 2015).	Yes	No	Suitable soils not present. Soils in PSA are predominantly sandy loam type (USDA 2015).
<i>Ambrosia pumila</i>	San Diego ambrosia	FE	—	1B.1	Sandy loam or clay soils, often in disturbed areas, sometimes alkaline, in chaparral, coastal scrub, vernal pools and valley and foothill grassland. Elev: 66–1,362 feet (20–415 m). Blooms: April–Oct (CNPS 2015).	Yes	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest occurrence is over 7 miles away (CDFW 2015c).
<i>Arctostaphylos rainbowensis</i>	rainbow manzanita	—	—	1B.1	Chaparral. Elev: 675–2,210 feet (206–674 m). Blooms: Dec–March (CNPS 2015).	Yes	No	Suitable habitat not present.
<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Jaeger’s bush milk-vetch	—	—	1B.1	Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, valley and foothill grasslands. Elev: 1,197–3,002 feet (365–915 m). Blooms: Dec–June (CNPS 2015).	Yes	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest occurrence is over 8.5 miles away (CDFW 2015c).

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Atriplex coronata</i> var. <i>notatior</i>	San Jacinto Valley crownscale	FE	—	1B.1	Alkaline soils in playas, vernal pools, and mesic valley and foothill grasslands. Elev: 456–1,640 feet (139–500 m). Blooms: April–Aug (CNPS 2015).	Yes	No	Suitable habitat/soils not present.
<i>Atriplex pacifica</i>	South Coast crownscale	—	—	1B.2	Playas, coastal bluff scrub, coastal dunes, and coastal scrub. Elev: 0–459 feet (0–140 m). Blooms: March–Oct (CNPS 2015).	No	No	Suitable habitat not present. PSA is above species elevation range.
<i>Atriplex parishii</i>	Parish’s brittlescale	—	—	1B.1	Alkaline soils in playas, vernal pools, and chenopod scrub. Elev: 82–6,233 feet (25–1,900 m). Blooms: June–Oct (CNPS 2015).	Yes	No	Suitable habitat not present.
<i>Atriplex seranana</i> var. <i>davidsonii</i>	Davidson’s saltscale	—	—	1B.2	Alkaline areas in coastal scrub and coastal bluff scrub. Elev: 33–656 feet (10–200 m). Blooms: April–Oct (CNPS 2015).	Yes	No	Suitable habitat not present. PSA is above species elevation range.
<i>Ayenia compacta</i>	California ayenia	—	—	2B.3	Rocky areas in Mojavean and Sonoran desert scrub. Elevations 492–3,592 feet (150–1,095 m). Blooms: March–April (CNPS 2015).	No	No	Suitable habitat not present.
<i>Berberis nevinii</i>	Nevin’s barberry	FE	SE	1B.1	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Elev: 898–2,707 feet (274–825 m). Blooms: March–June (CNPS 2015).	Yes	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest occurrence is over 10.5 miles away (CDFW 2015c).

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	FT	SE	1B.1	Prefers clay soils in chaparral openings, cismontane woodland, coastal scrub, playas, vernal pools, and valley and foothill grasslands. Elev: 82–3,937 feet (25–1,120 m). Blooms: March–June (CNPS 2015).	Yes	No	Not observed during focused plant surveys conducted in 2013. Suitable soils not present. Soils in PSA are predominantly sandy loam type (USDA 2015).
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	—	—	1B.1	Mesic, clay and sometimes serpentinite areas in chaparral, cismontane woodland, meadows and seeps, vernal pools, closed-cone coniferous forest, and valley and foothill grasslands. Elev: 98–5,551 feet (30–1,692 m). Blooms: May–July (CNPS 2015).	Yes	No	Suitable soils not present. Soils in PSA are predominantly sandy loam type (USDA 2015).
<i>Brodiaea santarosae</i>	Santa Rosa Basalt brodiaea	—	—	1B.2	Basaltic soils in valley and foothill grassland. Elev: 1,865–3,449 feet (568–1,050 m). Blooms: May–June (CNPS 2015).	No	No	Suitable soils/habitat not present. PSA is below species elevation range.
<i>California macrophylla</i>	round-leaved filaree	—	—	1B.1	Clay soils in cismontane woodland and valley and foothill grasslands. Elev: 49–3,937 feet (15–1,200 m). Blooms: March–May (CNPS 2015).	Yes	No	Suitable soils not present. Soils in PSA are predominantly sandy loam type (USDA 2015).
<i>Calochortus weedii</i> var. <i>intermedius</i>	intermediate mariposa lily	—	—	1B.2	Rocky, calcareous substrates in chaparral, coastal scrub, and valley and foothill grassland. Elev: 345–2,805 feet (105–855 m). Blooms: May–July (CNPS 2015).	Yes	No	Suitable soils not present. Soils in PSA are predominantly sandy loam type (USDA 2015).
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	—	—	1B.2	Closed-cone coniferous forests and chaparral. Elev: 770–2,477 feet (235–755 m). Blooms: April–June (CNPS 2015).	No	No	Suitable habitat not present.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Ceanothus ophiochilus</i>	Vail lake ceanothus	FT	SE	1B.1	Gabbro or pyroxinite-rich outcrops in chaparral. Elev: 1,903–3,494 feet (580–1,065 m). Blooms: Feb–March (CNPS 2015).	Yes	No	Suitable soils/habitat not present. PSA is below species elevation range.
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	—	—	1B.1	Alkaline soils in meadows, seeps, playas, chenopod scrub, riparian woodland, and valley and foothill grassland. Elev: 0–2,100 feet (0–640 m). Blooms: April–Sept (CNPS 2015).	Yes	Yes	Not observed during focused plant surveys conducted in 2013; however, suitable habitat is present, this species is known to colonize disturbed places, and nearby populations occur just over a mile away (CDFW 2015c).
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	—	—	1B.1	Sandy coastal bluff scrub and coastal dunes. Elev: 0–328 feet (0–100 m). Blooms: Jan–Aug (CNPS 2015).	No	No	Suitable habitat not present. PSA is above species elevation range.
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	—	—	1B.1	Sandy or rocky soils in openings in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Elev: 902–4,003 feet (275–1,220 m). Blooms: April–June (CNPS 2015).	Yes	Yes	Not observed during focused plant surveys conducted in 2013; however, suitable habitat is present, this species is known to colonize disturbed places, and nearby populations occur just over 2 miles away (CDFW 2015c).
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	—	—	1B.2	Prefers clay soils in chaparral, coastal scrub, meadows, seeps, vernal pools, and foothill and valley grassland. Elev: 98–5,020 feet (30–1,530 m). Blooms: April–July (CNPS 2015).	Yes	No	Suitable soils not present. Soils in PSA are predominantly sandy loam type (USDA 2015). Not observed during focused plant surveys conducted in 2013.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Clarkia delicata</i>	delicate clarkia	—	—	1B.2	Often gabbroic soils in chaparral and cismontane woodland. Elev: 770–3,280 feet (235–1,000 m). Blooms: April–June (CNPS 2015).	No	No	Suitable habitat/soils not present. Gabbroic soil does not occur on-site (CGS 2010).
<i>Clinopodium chandleri</i>	San Miguel savory	—	—	1B.2	Rocky, gabbroic, or metavolcanic soils in chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. Elev: 393–3,527 feet (120–1,075 m). Blooms: March–July (CNPS 2015).	Yes	No	Suitable soils not present (CGS 2010).
<i>Cryptantha wigginsii</i>	Wiggins' cryptantha	—	—	1B.2	Often clay soils in coastal scrub. Elev: 66–902 feet (20–275 m). Blooms: Feb–June (CNPS 2015).	No	No	Suitable habitat not present. PSA is above species elevation range.
<i>Dodecahema leptoceras</i>	slender-horned spineflower	FE	SE	1B.1	Sandy soils in chaparral, cismontane woodland, and alluvial fan coastal scrub. Elev: 656–2,493 feet (200–760 m). Blooms: April–June (CNPS 2015).	Yes	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest extant occurrence is over 15 miles away (CDFW 2015c).
<i>Dudleya multicaulis</i>	many-stemmed dudleya	—	—	1B.2	Often on clay soil in chaparral, coastal scrub, and valley and foothill grassland. Elev: 49–2,592 feet (15–790 m). Blooms: April–July (CNPS 2015).	Yes	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest occurrence is over 12 miles away (CDFW 2015c). Suitable soils not present. Soils in PSA are predominantly sandy loam type (USDA 2015).

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Dudleya viscida</i>	sticky dudleya	—	—	1B.2	Rocky areas in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub. Elev: 33–1,805 feet (10–550 m). Blooms: May–June (CNPS 2015).	Yes	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest extant occurrence is over 10 miles away (CDFW 2015c).
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	FE	SE	1B.1	Mesic soils in coastal scrub, valley and foothill grassland, and vernal pools. Elev: 66–2,046 feet (20–624 m). Blooms: April–June (CNPS 2015).	Yes	No	Suitable soils not present. Soils in PSA are well drained and not considered mesic (USDA 2015).
<i>Geothallus tuberosus</i>	Campbell's liverwort	—	—	1B.1	On soil in vernal pools and mesic coastal scrub. Elev: 33–1,969 feet (10–600 m) (CNPS 2015).	No	No	Suitable soils/habitat not present.
<i>Hesperocyparis forbesii</i>	Tecate cypress	—	—	1B.1	Clay, gabbroic, or metavolcanic soils in chaparral and closed-cone coniferous forest. Elev: 262–4,921 feet (80–1,500 m) (CNPS 2015).	No	No	Suitable habitat/soils not present. Gabbroic/ metavolcanic soil does not occur on-site (CGS 2010). Soils in PSA are predominantly sandy loam type (USDA 2015).
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	—	—	1B.1	Sandy or gravelly soils in maritime chaparral, cismontane woodland, and coastal scrub. Elev: 230–2,657 feet (70–810 m). Blooms: Feb–Sept (CNPS 2015).	No	No	Suitable habitat not present. In addition, nearest extant occurrence is over 12 miles away (CDFW 2015c).
<i>Horkelia truncata</i>	Ramona horkelia	—	—	1B.3	Clay and/or gabbroic soils in chaparral and cismontane woodland. Elev: 1,312–4,265 feet (400–1,300 m). Blooms: May–June (CNPS 2015).	No	No	Suitable habitat/soils not present. Gabbroic soil does not occur on-site (CGS 2010). Soils in PSA are predominantly sandy loam type (USDA 2015).

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	—	—	1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows, seeps, and vernal pools. Elev: 984–6,693 feet (300–2,040 m). Blooms: April–July (CNPS 2015).	No	No	Suitable habitat not present.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	—	—	1B.1	Coastal salt marshes and swamps, playas, and vernal pools. Elev: 3–4,003 feet (1–1,220 m). Blooms: Feb–June (CNPS 2015).	Yes	No	Suitable habitat not present.
<i>Lepechinia cardiophylla</i>	heart-leaved pitcher sage	—	—	1B.1	Closed-cone coniferous forests, chaparral, and cismontane woodland. Elev: 1,706–4,495 feet (520–1,370 m). Blooms: April–July (CNPS 2015).	Yes	No	Suitable habitat not present. PSA is below species elevation range.
<i>Lilium parryi</i>	lemon lily	—	—	1B.2	Mesic areas in meadows, seeps, riparian forest, lower and upper montane coniferous forests. Elev: 4,003–9,006 feet (1,220–2,745 m). Blooms: July–Aug (CNPS 2015).	Yes	No	Suitable habitat not present. PSA is below species elevation range.
<i>Limnanthes alba</i> ssp. <i>parishii</i>	Parish's meadowfoam	—	SE	1B.2	Vernally mesic areas in lower montane coniferous forest, meadows and seeps, and vernal pools. Elev: 1,969–6,562 feet (600–2,000 m). Blooms: April–June (CNPS 2015).	Yes	No	Suitable habitat not present. PSA is below species elevation range.
<i>Mielichhoferia shevockii</i>	Shevock's copper moss	—	—	1B.2	On metamorphic rock, rock, and in mesic areas in cismontane woodland. Elev: 2,460–4,593 feet (750–1,400 m) (CNPS 2015).	No	No	Suitable habitat not present. PSA is below species elevation range.
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	intermediate monardella	—	—	1B.3	Usually understory in chaparral, cismontane woodland, and sometimes lower montane coniferous forest. Elev: 1,312–4,101 feet (400–1,250 m). Blooms: April–Sept (CNPS 2015).	No	No	Suitable habitat not present. In addition, nearest occurrence is over 5 miles away (CDFW 2015c).

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<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	felt-leaved monardella	—	—	1B.2	Chaparral and cismontane woodland. Elev: 984–5,167 feet (300–1,575 m). Blooms: June–Aug (CNPS 2015).	No	No	Suitable habitat not present. In addition, no occurrences in the vicinity of the PSA (CDFW 2015c).
<i>Monardella macrantha</i> ssp. <i>hallii</i>	Hall's monardella	—	—	1B.3	Chaparral, cismontane woodland, lower montane coniferous forest, broadleaved upland forest, valley and foothill grassland. Elev: 2,395–7,201 feet (730–2,195 m). Blooms: June–Oct (CNPS 2015).	Yes	No	Suitable habitat not present. PSA is below species elevation range.
<i>Navarretia fossalis</i>	spreading navarretia	FT	—	1B.1	Assorted shallow freshwater marshes and swamps, and chenopod scrub, playas, and vernal pools. Elev: 98–2,149 feet (30–655 m). Blooms: April–June (CNPS 2015).	No	No	Suitable habitat not present.
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	—	—	1B.1	Mesic areas in coastal scrub, meadows and seeps, vernal pools, and alkaline valley and foothill grasslands. Elev: 49–3,970 feet (15–1,210 m). Blooms: April–July (CNPS 2015).	No	No	Suitable soils/habitat not present. Soils in PSA are well drained and not considered mesic (USDA 2015).
<i>Nolina cismontana</i>	chaparral nolina	—	—	1B.2	Sandstone or gabbro soils in chaparral and coastal scrub. Elev: 459–4,183 feet (140–1,275 m). Blooms: March–July (CNPS 2015).	No	No	Suitable soils not present. Gabbroic/sandstone soil does not occur on-site (CGS 2010).
<i>Orcuttia californica</i>	California Orcutt grass	FE	SE	1B.1	Vernal pools. Elev: 49–2,165 feet (15–660 m). Blooms: April–Aug (CNPS 2015).	Yes	No	Suitable habitat not present.
<i>Packera ganderi</i>	Gander's ragwort	—	—	1B.2	Often found in newly burned areas or on gabbroic soils in chaparral. Elev: 1,312–3,937 feet (400–1,200 m). Blooms: April–June (CNPS 2015).	No	No	Suitable soils/habitat not present.

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<i>Pseudognaphalium leucocephalum</i>	white rabbit-tobacco	—	—	2B.2	Sandy, gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Elev: 0–6,930 feet (0–2,112 m). Blooms: July–Dec (CNPS 2015).	No	No	Not observed during focused plant surveys conducted in 2013. Disturbed nature of the PSA likely precludes the presence of this species.
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	southern mountains skullcap	—	—	1B.2	Mesic soils in chaparral, cismontane woodland, and lower montane coniferous forest. Elev: 1,403–6,600 feet (427–2,012 m). Blooms: June–Aug (CNPS 2015).	No	No	Suitable habitat not present. PSA is below species elevation range.
<i>Sibaropsis hammittii</i>	Hammitt's clay-cress	—	—	1B.2	Clay soils in chaparral openings, and valley and foothill grassland. Elev: 2,362–3,494 feet (720–1,065 m). Blooms: March–April (CNPS 2015).	Yes	No	Suitable habitat not present. PSA is below species elevation range.
<i>Sphaerocarpos drewei</i>	bottle liverwort	—	—	1B.1	Soil openings in chaparral and coastal scrub. Elev: 297–1,980 feet (91–604 m) (CNPS 2015).	No	No	Not observed during focused plant surveys conducted in 2013. Disturbed nature of the PSA likely precludes the presence of this species.
<i>Symphotrichum defoliatum</i>	San Bernadino aster	—	—	1B.2	Near ditches, streams, and springs in coastal scrub, cismontane woodland, lower montane coniferous forest, marshes, meadows, seeps, swamps, and vernal mesic valley and foothill grasslands. Elev: 7–6,693 feet (2–2,040 m). Blooms: July–Nov (CNPS 2015).	No	No	Suitable habitat not present. Drainage in PSA is ephemeral and likely not mesic enough to support this species.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Tetrococcus dioicus</i>	Parry's tetrococcus	—	—	1B.2	Chaparral and coastal scrub. Elev: 541–3,281 feet (165–1,000 m). Blooms: April–May (CNPS 2015).	No	No	Not observed during focused plant surveys conducted in 2013. In addition, nearest occurrence is over 11 miles away (CDFW 2015c).
<i>Tortula californica</i>	California screw-moss	—	—	1B.2	Sandy soils in chenopod scrub, valley and foothill grassland. Elev: 33–4,790 feet (10–1,460 m) (CNPS 2015).	No	No	Suitable habitat not present.
Invertebrates								
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT	—		Found only in vernal pools and vernal pool-like habitats (USFWS 2005).	Yes	No	Suitable habitat not present.
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE	—		Small, shallow vernal pools. Occasionally occur in ditches and roadcuts with suitable conditions. Have never been found in permanent water bodies (USFWS 1998).	No	No	Suitable habitat not present.
<i>Euphydryas editha quino</i>	quino checkerspot butterfly	FE	—		Restricted to Riverside and San Diego counties. Habitat is patchy scrub or small tree landscapes with openings of several meters between woody plants, or a landscape of open swales alternating with dense patches of shrubs, habitats often collectively termed “scrublands.” Selectively lay eggs and feed on host plants—mostly Scrophulariaceae or Plantaginaceae families (USFWS 2003).	Yes	No	Suitable habitat not present. Host plants are not present (PCR 2013).

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE	—		Restricted to vernal pools and non-vegetated ephemeral pools deeper than 12 inches. Inland areas of Riverside, Orange, and San Diego counties. Coastal areas of San Diego County and Northwestern Baja California (USFWS 2008).	Yes	No	Suitable habitat not present.
Fish								
<i>Gila orcuttii</i>	arroyo chub	—	SSC		Native to Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita rivers, as well as Malibu and San Juan creeks. Extirpated from much of the native range, but introduced to streams along the coast and the Mojave River system, where they have eliminated the Mohave tui chub (UC Davis 2015).	Yes	No	Suitable habitat not present. On-site drainage is ephemeral.
Amphibians								
<i>Anaxyrus californicus</i>	arroyo toad	FE	SSC		Breeding habitat = slow moving streams with shallow pools, nearby sandbars, and adjacent stream terraces. Often breed in shallow, sandy pools bordered by sand/gravel flood terraces. Inhabit upland habitats when not breeding, such as sycamore-cottonwood woodlands, oak woodlands, coastal sage scrub, chaparral, and grassland (USFWS 2009a).	Yes	No	Suitable habitat not present. On-site drainage is ephemeral.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Rana draytonii</i>	California red-legged frog	FT	SSC		Ponds/streams in humid forests, woodlands, grasslands, coastal scrub, and streambanks with plant cover in lowlands or foothills. Breeding habitat = permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry. From sea level to 5,000 feet (1,525 m) (Nafis 2015).	Yes	No	Suitable habitat not present. On-site drainage is ephemeral. In addition, the PSA does not overlap with the CDFW Range Map (2008 update) for this species (CDFW 2015b).
<i>Spea hammondi</i>	western spadefoot	—	SSC		Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding (Nafis 2015).	Yes	No	Suitable breeding pool habitat not present.
<i>Taricha torosa</i>	Coast Range newt	—	SSC		Found in wet forests, oak forests, chaparral, and rolling grasslands. In Southern California, drier chaparral, oak woodland, and grassland are used (Nafis 2015).	Yes	No	Suitable habitat not present. On-site drainage is ephemeral. In addition, the PSA does not overlap with the CDFW Range Map (1998 update) for this species (CDFW 2015b).

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Reptiles								
<i>Anniella pulchra pulchra</i>	silvery legless lizard	—	SSC		Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodland, desert scrub, sandy washes, and stream terraces (Nafis 2015).	No	No	Suitable habitat may be present; however, the nearest occurrence is over 35 miles away (CDFW 2015c).
<i>Aspidoscelis hyperythra</i>	orange-throated whiptail	—	SSC		Inhabits low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks (CDFW 2015b).	Yes	Yes	Not observed during reconnaissance-level surveys conducted in 2012 and 2013; however, suitable habitat is present.
<i>Crotalus ruber</i>	red-diamond rattlesnake	—	SSC		Inhabits chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation (Nafis 2015).	Yes	Yes	Not observed during reconnaissance-level surveys conducted in 2012 and 2013; however, suitable habitat is present.
<i>Emys marmorata</i>	western pond turtle	—	SSC		Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking (Nafis 2015).	Yes	No	Suitable habitat not present. On-site drainage is ephemeral and could not support this species.
<i>Phrynosoma blainvillii</i>	coast horned lizard	—	SSC		Occurs in valley-foothill hardwood, conifer, pine-cypress, juniper, annual grassland and riparian habitats. Inhabits open country, especially sandy areas, washes, floodplains, and wind-blown deposits (CDFW 2015b).	Yes	Yes	Not observed during reconnaissance-level surveys conducted in 2012 and 2013; however, suitable habitat is present.

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<i>Plestiodon skiltonianus interparietalis</i>	Coronado Island skink	—	SSC		Grasslands, woodlands, pine forests, chaparral, especially in open sunny areas such as clearings and the edges of creeks and rivers. Prefers rocky areas near streams with lots of vegetation. Also found in areas away from water. Range restricted to San Diego area (Nafis 2015).	No	No	Outside species range (Nafis 2015).
<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake	—	SSC		Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains at elevations from below sea level to around 7,000 feet (2,134 m) (Nafis 2015).	No	No	Suitable habitat not present.
<i>Thamnophis hammondi</i>	two-striped garter snake	—	SSC		Found in wet forests, oak forests, chaparral, and rolling grasslands. In Southern California, drier chaparral, oak woodland, and grassland are used (Nafis 2015).	No	No	Suitable habitat not present.
Birds								
<i>Agelaius tricolor</i>	tricolored blackbird	—	SSC		Nests in wetlands or in dense vegetation near open water. Dominant nesting substrates: cattails, bulrushes, blackberry, agricultural silage. Nesting substrate must either be flooded, spinous, or in some way defended against predators (Hamilton 2004).	Yes	No	Suitable habitat not present.
<i>Ammodramus savannarum</i>	grasshopper sparrow	—	SSC		Frequents dense, dry, or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting. Uses scattered shrubs for singing perches. In Southern California, breeds on hillside, mesa, and mountains up to 5,000 feet (1,500 m) (CDFW 2015b).	Yes	No	Suitable habitat not present.

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<i>Aquila chrysaetos</i>	golden eagle	—	FP		Uncommon resident and migrant throughout California, except center of Central Valley. Habitat typically rolling foothills, mountain areas, sage-juniper flats, desert (CDFW 2015b).	Yes	No	Suitable nesting habitat not present.
<i>Asio flammeus</i>	short-eared owl	—	SSC		Found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting. Associated with perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands (CDFW 2015b).	No	No	Suitable habitat not present.
<i>Asio otus</i>	long-eared owl	—	SSC		Riparian habitat required; also uses live oak thickets and other dense stands of trees. Found in dense conifer stands at high elevations (CDFW 2015b).	No	No	Suitable habitat not present.
<i>Athene cunicularia</i>	burrowing owl	—	SSC		Nesting habitat includes open areas with mammal burrows, including rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub, vacant lots and human disturbed lands. Soils must be friable for burrows (Bates 2006).	Yes	Yes	Not observed during focused surveys conducted in 2013; however, suitable habitat is present.
<i>Buteo swainsoni</i>	Swainson's hawk	—	ST		Nests in stands with few trees in riparian areas, juniper-sage flats, and oak savannah in the Central Valley. Forages in adjacent grasslands, agricultural fields, and pastures (CDFW 2015b).	Yes	No	Suitable nesting habitat not present.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren	—	SSC		Frequents desert succulent shrub, Joshua tree, and desert wash habitats. Found in arid parts of westward-draining slopes of Southern California. Nests in cholla or other large, branching cactus, in yucca, or in stiff-twigged, thorny shrubs or small trees (CDFW 2015b).	Yes	No	Suitable habitat not present.
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	FT	SSC		Breeds on barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, etc. (Shuford and Gardali 2008).	No	No	Suitable habitat not present.
<i>Charadrius montanus</i>	mountain plover	—	SSC		Frequents open plains with low, herbaceous or scattered shrub vegetation below 3,200 feet (1,000 m) (CDFW 2015b).	Yes	No	Suitable habitat not present. Does not nest in California (CDFW 2015b).
<i>Chlidonius niger</i>	black tern	—	SSC		Uses fresh emergent wetlands, lakes, ponds, moist grasslands, and agricultural fields for breeding. Can use coastal wetlands and offshore habitats during migration (CDFW 2015b).	No	No	Suitable habitat not present.
<i>Circus cyaneus</i>	northern harrier	—	SSC		Nests on the ground in patches of dense, tall vegetation in undisturbed areas. Breeds and forages in variety of open habitats such as marshes, wet meadows, weedy borders of lakes, rivers and streams, grasslands, pastures, croplands, sagebrush flats and desert sinks (Shuford and Gardali 2008).	Yes	No	Suitable nesting habitat not present. May use the PSA for foraging.
<i>Cistothorus palustris clarkae</i>	Clark's marsh wren	—	SSC		Restricted to freshwater and brackish marshes dominated by bulrushes or cattail (Shuford and Gardali 2008).	No	No	Suitable habitat not present.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	FCT	SE		Valley foothill and desert riparian habitats. Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, abutting slow-moving watercourses, backwaters, or seeps. Willow almost always present (CDFW 2015b).	Yes	No	Suitable habitat not present.
<i>Contopus cooperi</i>	olive-sided flycatcher	—	SSC		Preferred habitat is forest and woodland, with adjacent meadows, lakes, or open terrain for foraging (CDFW 2015b).	No	No	Suitable habitat not present.
<i>Dendroica petechia brewsteri</i>	yellow warbler	—	SSC		Riparian vegetation along streams and in wet meadows. Willow cover and Oregon ash important predictors of abundance in Northern California (CDFW 2015b).	Yes	No	Suitable habitat not present.
<i>Elanus leucurus</i>	white-tailed kite	—	FP		Occurs in herbaceous and open stages of valley lowland habitats, usually near agricultural land. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands (CDFW 2015b).	Yes	No	Suitable nesting habitat not present. May use the PSA for foraging.
<i>Empidonax traillii</i>	willow flycatcher	—	SE		Obligate riparian breeder. Nests in willow or alder habitats associated with moist meadows, perennial streams, and smaller spring-fed or boggy areas (Craig and Williams 1998).	No	No	Suitable habitat not present.
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	FE	SE		Dense riparian forest and scrub habitats associated with rivers, swamps, wetlands, lakes, and reservoirs (USFWS 2002b).	Yes	No	Suitable habitat not present.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Falco peregrinus anatum</i>	American peregrine falcon	FD	FP		Breeds mostly in woodland, forest, and coastal habitats, near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, or mounds. Will nest in human-made structures, tree or snag cavities, or old nests of other raptors (CDFW 2015b).	Yes	No	Suitable habitat not present.
<i>Gelochelidon nilotica</i>	gull-billed tern	—	SSC		In California, nests only at the Salton Sea, on sandy flats. Forages over shallow flats, mudflats, grasslands, and croplands (CDFW 2015b).	No	No	Suitable habitat not present. Outside species range.
<i>Haliaeetus leucocephalus</i>	bald eagle	FD	SE		Nests in large, old-growth, or dominant live tree with open branchwork, especially ponderosa pine. Requires large bodies of water or rivers with abundant fish, and adjacent snags (CDFW 2015b).	Yes	No	Suitable habitat not present.
<i>Icteria virens</i>	yellow-breasted chat	—	SSC		Nests in early-successional riparian habitats with a well-developed shrub layer and an open canopy. Restricted to narrow border of streams, creeks, sloughs, and rivers. Often nests in dense thicket plants such as blackberry and willow (Shuford and Gardali 2008).	Yes	No	Suitable habitat not present.
<i>Ixobrychus exilis</i>	least bittern	—	SSC		Colorado River in dense emergent wetlands near freshwater and in desert riparian (saltcedar scrub). Likely nests only in emergent wetlands. Rare in deserts and coastal lowlands (CDFW 2015b).	No	No	Suitable habitat not present.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Lanius ludovicianus</i>	loggerhead shrike	—	SSC		Breeds in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. Requires tall shrubs, trees, fences, or power lines for hunting perches; open areas for hunting; and large shrubs or trees for nests. Also needs impaling sites for prey manipulation (Shuford and Gardali 2008).	Yes	Yes	Not observed during reconnaissance-level surveys conducted in 2012 and 2013; however, suitable nesting and foraging habitat is present.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	—	SE		Coastal salt marshes. Associated with dense pickleweed, particularly <i>Salicornia virginica</i> , for nesting (Zemba and Hoffman 2010).	No	No	Suitable habitat not present.
<i>Poocetes gramineus affinis</i>	Oregon vesper sparrow	—	SSC		Obligate grassland species. Open ground with little vegetation or short grass and low annuals, including stubble fields, meadows and road edges (Shuford and Gardali 2008).	No	No	Suitable habitat not present.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Polioptila californica californica</i>	coastal California gnatcatcher	FT	SSC		Scrub-dominated plant communities, strongly associated with sage scrub. Distribution ranges from southern Ventura County down through Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties (USFWS 2010).	Yes	Yes	Not observed during reconnaissance-level surveys conducted in 2012 and 2013; however, suitable nesting and foraging habitat is present. In addition, an occurrence was reported on the Prielipp property in the CNDDDB in 2001, and one individual of this species was incidentally observed by PCR during a survey conducted in August 2013 on a project site less than 1,000 feet northwest of the property.
<i>Strix occidentalis occidentalis</i>	California spotted owl	—	SSC		Forests and woodlands with large mature trees and snags containing a high basal area, dense canopy (>70%) cover, multiple canopy layers, and downed woody debris (CDFW 2015b).	Yes	No	Suitable habitat not present.
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE	SE		Obligate riparian breeders, preferring structurally diverse riparian woodlands with a dense understory. Community structures typically utilized include cottonwood-willow woodlands, oak woodlands, and mule fat scrub (Kus 2002).	Yes	No	Suitable habitat not present.
<i>Xanthocephalus xanthocephalus</i>	yellow-headed blackbird	—	SSC		Nest in marshes with tall, emergent vegetation (e.g., tules and cattails) adjacent to deepwater (Shuford and Gardali 2008).	No	No	Suitable habitat not present.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
Mammals								
<i>Antrozous pallidus</i>	pallid bat	—	SSC		Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings (CDFW 2015b).	No	No	Suitable habitat not present.
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	—	SSC		Variety of habitats including chaparral, grassland, and coastal sage scrub in San Diego County. Attracted to grass-chaparral edges (CDFW 2015b).	No	No	Suitable habitat not present. Outside species range.
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	—	SSC		Sandy herbaceous areas in coastal scrub, chaparral, sagebrush, desert scrub and washes, and annual grassland. Usually found in areas with moderate canopy coverage of arid shrubland or pinyon-juniper habitats on or near rocky slopes and sandy areas (CDFW 2015b).	Yes	Yes	Suitable habitat present.
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	FE	SSC		Typically found in Riverside alluvial fan sage scrub on alluvial floodplains and adjacent upland habitat (USFWS 2009b).	Yes	No	Outside species range (USFWS 2009b).
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	FE	ST		Often found in transition areas between grassland and coastal sage scrub habitat where perennial vegetation is covering less than 50% of the ground, including disturbed areas. Deep, friable soil is needed for burrowing. Plants commonly associated with suitable habitat are chamise, buckwheat, brome grass, and filaree (RCA 2004).	Yes	Yes	Suitable habitat present. Commonly found in disturbed areas.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Eumops perotis californicus</i>	western mastiff bat	—	SSC		Occurs in open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting (CDFW 2015b).	No	No	Suitable roosting habitat not present.
<i>Lasiurus xanthinus</i>	western yellow bat	—	SSC		Associated with palm trees in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats below 2,000 feet (600 m) (CDFW 2015b).	No	No	Suitable habitat not present.
<i>Lepus californicus bennetti</i>	San Diego black-tailed jackrabbit	—	SSC		Herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats (CDFW 2015b).	Yes	Yes	This species was observed during reconnaissance-level surveys conducted in 2012 and 2013.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	—	SSC		Inhabits areas with dense vegetation in habitats such as sage scrub and chaparral, when rocky crevices are present. Most abundant in rocky areas with Joshua trees (CDFW 2015b).	Yes	No	Suitable habitat not present. Vegetation in PSA is sparse.
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	—	SSC		Associated with creosote scrub or chaparral, and large rock features such as boulder jumbles or rocky canyons (Bolster 1998).	No	No	Suitable habitat not present.
<i>Onychomys torridus ramona</i>	southern grasshopper mouse	—	SSC		Common in California in arid desert habitats of the Mojave Desert and southern Central Valley including alkaline desert scrub and desert scrub. Lower population densities in succulent shrub, wash, and riparian areas (CDFW 2015b).	No	No	Suitable habitat not present.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Covered by the MSHCP?	Included in Impact Analysis?	Rationale/Comments
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	—	SSC		Low elevation grasslands, alluvial sage scrub, and coastal sage scrub (Bolster 1998).	Yes	Yes	Suitable habitat present.
<i>Perognathus longimembris internationalis</i>	Jacumba pocket mouse	—	SSC		Desert riparian, desert scrub, desert wash, coastal scrub, and sagebrush (CDFW 2015b).	No	No	Suitable habitat may be present; however, there are no nearby occurrences. Closest record is almost 14 miles away (CDFW 2015c).
<i>Taxidea taxus</i>	American badger	—	SSC		Open shrub, forest, and herbaceous habitats with friable soils. Associated with treeless regions, prairies, park lands, and cold desert areas. Range includes most of California, except the North Coast (CDFW 2015b).	No	No	Suitable habitat may be present; however, there are no nearby occurrences. Closest record is from the west side of the Santa Ana Mountains (CDFW 2015c).

Key	
Federal & State Status	CNPS Rare Plant Rank
(FE) Federal Endangered	<i>Rareness Ranks</i>
(FT) Federal Threatened	(1A) Presumed Extinct in California
(FC) Federal Candidate	(1B) Rare, Threatened, or Endangered in California and Elsewhere
(FD) Federally Delisted	(2B) Rare, Threatened, or Endangered in California, But More Common Elsewhere
(SE) State Endangered	<i>Threat Ranks</i>
(ST) State Threatened	(0.1) Seriously threatened in California
(SSC) State Species of Special Concern	(0.2) Fairly threatened in California
(FP) Fully Protected	(0.3) Not very threatened in California

3.3 BIOLOGICAL AND NATURAL RESOURCES

Special-Status Plant Species

Based on database search results, available habitat, and species range, two special-status plant species have the potential to occur in the PSA. Focused rare plant surveys conducted by PCR in 2013 came back negative for special-status plants; however, both species described below are being considered in the impact analysis due to the presence of nearby populations and their ability to recruit in disturbed areas. Each special-status plant species considered in the impact analysis is described below based on the data obtained from the CNPS (2015) Inventory of Rare, Threatened, and Endangered Plants of California.

Smooth Tarplant (*Centromadia pungens* ssp. *laevis*)

Smooth tarplant is an annual herb endemic to California. It has a CNPS rare plant rank of 1B.1 and no federal or state listing. This species blooms from April to September and can be found at elevations ranging from sea level to 3,000 feet (640 meters) amsl. Smooth tarplant is associated with alkaline soils and is found in a variety of habitats, including chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland. This species is threatened by agriculture, road maintenance, discing, urbanization, and flood control projects.

Smooth tarplant is known from numerous occurrences in the vicinity of the PSA, the nearest of which is just over 1 mile west along Murrieta Creek (CDFW 2015c). Although this species was not observed during focused rare plant surveys conducted in 2013, it is known to be a pioneering species capable of colonizing disturbed areas. The presence of suitable habitat and of numerous nearby occurrences results in the potential for this species to be impacted by project-related activities. Smooth tarplant is a covered species under the MSHCP.

Parry's Spineflower (*Chorizanthe parryi* var. *parryi*)

Parry's spineflower is an annual herb endemic to California. It has a CNPS rare plant rank of 1B.1 and no federal or state listing. This species blooms from April to June and can be found at elevations ranging from 908 to 4,026 feet (275–1,220 meters) amsl. Parry's spineflower is associated with sandy or rocky soils and is found in a variety of habitats, including chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. This species is threatened by altered flood regimes, development, mining, non-native plants, and vehicles

Parry's spineflower is known from numerous occurrences in the vicinity of the PSA, several of which are just over 2 miles from the PSA (CDFW 2015c). Although this species was not observed during focused rare plant surveys conducted in 2013, it is known to be a pioneering species capable of colonizing disturbed areas. The presence of suitable habitat and of numerous nearby occurrences results in the potential for this species to be impacted by project-related activities. Parry's spineflower is a covered species under the MSHCP.

Special-Status Wildlife Species

Based on database search results, ten special-status wildlife species have the potential to occur in the PSA. Each species considered in the impact analysis is described below based on the data obtained from the CDFW's (2015b) California Wildlife Habitat Relationships System Life History Accounts and Range Maps as well as other published data sources, as cited.

Orange-Throated Whiptail (*Aspidoscelis hyperythra*)

The orange-throated whiptail is a California species of special concern and a common resident of Orange, Riverside, and San Diego counties west of the crest of the Peninsular Ranges, as well as in southwestern San Bernardino County. It is typically associated with low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats. This species is found at elevations ranging from near sea level to 3,410 feet (1,040 meters) amsl. Preferred habitat is characterized by washes and other sandy areas with patches of brush and rocks.

Orange-throated whiptail is known from numerous occurrences in the vicinity of the PSA, one of which is less than a mile north (CDFW 2015c). The scrub communities in the PSA provide suitable habitat for this species. Although this species was not observed during reconnaissance-level surveys conducted by PCR in 2012 and 2013, the presence of suitable habitat and of nearby occurrences results in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

Red-Diamond Rattlesnake (*Crotalus ruber*)

The red-diamond rattlesnake is a California species of special concern found along coastal San Diego County, to the eastern slopes of the mountains and north through western Riverside County. It is typically associated with chaparral, woodland, and arid desert habitats at elevations ranging from sea level to 3,000 feet (900 meters) amsl. Preferred habitat is characterized by rocky areas and dense vegetation.

Red-diamond rattlesnakes are known from several occurrences in the vicinity of the PSA, the nearest of which is approximately 3 miles north of the PSA in the Sedco Hills (CDFW 2015c). The scrub communities in the PSA provide suitable habitat for this species. Although this species was not observed during reconnaissance-level surveys conducted by PCR in 2012 and 2013, the presence of suitable habitat and of nearby occurrences results in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

Coast Horned Lizard (*Phrynosoma blainvillii*)

The coast horned lizard is a California species of special concern. Typical vegetative associations include valley-foothill hardwood, conifer, and riparian habitat as well as pine-cypress, juniper, and annual grassland. The current known distribution is in the Sierra Nevada foothills from Butte County south to Kern County and throughout the Central and Southern California coast. This species is typically found below 2,000 feet (606 meters) amsl in the north and 3,000 feet amsl in the south; however, the range may extend up to 4,000 feet (1,212 meters) amsl in the Sierra Nevada foothills and 6,000 feet (1,818 meters) amsl in the Southern California mountain ranges.

Coast horned lizard is known from numerous occurrences in the vicinity of the PSA, several of which are less than a mile from the PSA (CDFW 2015c). The scrub communities in the PSA provide suitable habitat for this species. Although this species was not observed during reconnaissance-level surveys conducted by PCR in 2012 and 2013, the presence of suitable habitat and of nearby occurrences results in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Burrowing Owl (*Athene cunicularia*)

The burrowing owl is a California species of special concern and is federally protected under the Migratory Bird and Treaty Act and as a bird of prey under the Raptor Recovery Act. Burrowing owls prefer nesting in mammal burrows in open areas of dry, open rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub with gullies, washes, and arroyos, and along the edges of human-disturbed lands. This species can also be found inhabiting golf courses, airports, cemeteries, vacant lots, and road embankments with friable soils for nesting. The elevation range for this species extends from 200 feet (60 meters) below mean sea level to 12,000 feet (3,636 meters) amsl at the Dana Plateau in Yosemite (Bates 2006).

Focused surveys for this species were conducted by PCR in April, May, June, and August of 2013 (**Appendix 3.3**). No burrowing owls or their sign were observed during these surveys; however, the presence of suitable habitat, including burrows, results in the potential for owls to become established on-site. In addition, there are several occurrences of burrowing owls in the vicinity of the PSA, the nearest of which is less than 4 miles south of the PSA along Murrieta Creek (CDFW 2015c). The presence of suitable habitat and of nearby occurrences results in the potential for this species to be impacted by project-related activities should they become established on-site in the future. This species is covered under the MSHCP; however, the MSHCP requires additional surveys for burrowing owl prior to the start of project-related activities.

Coastal California Gnatcatcher (*Polioptila californica californica*)

The coastal California gnatcatcher is a non-migratory California species of special concern and is federally listed as threatened. Coastal California gnatcatchers are strongly associated with sage scrub habitats. This species is distributed from Ventura County to Baja California and limited to lower elevations (below 1,640 feet amsl) south and west of the Transverse and Peninsular ranges (Mock 2004).

Coastal California gnatcatcher is known from numerous occurrences in the vicinity of the PSA, a few of which are adjacent to the PSA, two recorded in 2001 (CDFW 2015c) and one recorded by PCR in 2013 (**Appendix 3.3**). The scrub communities in the PSA provide suitable habitat for this species. Although no coastal California gnatcatchers were observed on-site during reconnaissance-level surveys, the presence of occurrences adjacent to the PSA and the presence of suitable habitat result in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

Loggerhead Shrike (*Lanius ludovicianus*)

The loggerhead shrike is a California species of special concern. This species can be either a yearlong resident or a winter visitor in California. Loggerhead shrikes frequent open habitats in lowlands and foothills throughout California. The highest densities of this species occur in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Suitable habitat is open with sparse trees or shrubs or other suitable perches and low or sparse herbaceous cover. Nests are built in shrubs or trees with dense foliage.

Loggerhead shrike is known from scattered occurrences in the vicinity of the PSA, the nearest of which is approximately 5 miles away near Lake Elsinore (CDFW 2015c). The scrub communities in the PSA provide suitable habitat for this species. Although this species was not observed during reconnaissance-level surveys conducted by PCR in 2012 and 2013, the presence of suitable

habitat and of nearby occurrences results in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)

The northwestern San Diego pocket mouse is a California species of special concern and a common resident of herbaceous areas, often in association with rocks or coarse gravel. This species is typically associated with coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland habitats. This species is distributed throughout San Diego County and in parts of Riverside and San Bernardino counties. It can be found at elevations ranging from sea level to 4,500 feet (1,350 meters) amsl.

Northwestern San Diego pocket mouse is known from several occurrences in the vicinity of the PSA, the nearest of which is less than 3 miles east of the PSA (CDFW 2015c). The scrub communities within the PSA provide suitable habitat for northwestern San Diego pocket mouse. Although this species was not observed during reconnaissance-level surveys conducted by PCR in 2012 and 2013, the presence of suitable habitat and of nearby occurrences results in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*)

The Los Angeles pocket mouse is a California species of special concern that occurs sparingly in the San Bernardino, San Jacinto, and Temecula valleys. This species is associated with lower elevation grassland, alluvial sage scrub, and coastal sage scrub habitats ranging in elevation from 548 to 2,650 feet (167 to 808 meters) amsl (Bolster 1998).

Los Angeles pocket mouse is known from scattered occurrences in the vicinity of the PSA, the nearest of which is over 6 miles southeast of the PSA in the Temecula Valley (CDFW 2015c). The scrub communities within the PSA provide suitable habitat for Los Angeles pocket mouse. Although this species was not observed during reconnaissance-level surveys conducted by PCR in 2012 and 2013, the presence of suitable habitat and nearby occurrences results in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*)

The San Diego black-tailed jackrabbit is a California species of special concern. It occurs in open habitats, including grassland, desert scrub, Riversidean sage scrub, chaparral, Great Basin sagebrush, and juniper and oak woodlands. This species is typically not found in dense brush or high grass. San Diego black-tailed jackrabbits use shrubs for cover and will sometimes use large burrows to escape predators (Riverside County 2003).

San Diego black-tailed jackrabbit is known from numerous occurrences in the vicinity of the PSA, including an occurrence from 1998 that overlaps with the PSA (CDFW 2015c). In addition, this species was observed during reconnaissance-level surveys in 2012 and 2013 (**Appendix 3.3**), resulting in the potential for this species to be impacted by project-related activities. This species is covered under the MSHCP.

3.3 BIOLOGICAL AND NATURAL RESOURCES

Stephens' Kangaroo Rat (*Dipodomys stephensi*)

Stephens' kangaroo rat is federally listed as endangered and state listed as threatened. This species ranges from the city of Riverside in Riverside County to the vicinity of Vista in San Diego County. Stephens' kangaroo rat is typically associated with areas characterized by sparse perennial vegetation with firm soil in grassland, coastal scrub, sagebrush, and disturbed habitats. This species is often found in transition areas between grassland and coastal sage scrub where perennial vegetation cover is less than 50 percent (RCHCA 2003). Preferred plant associates include buckwheat, chamise, brome grass, and filaree. This species usually nests in pocket gopher burrows; however, they have been known to excavate their own burrows in suitable conditions.

Stephens' kangaroo rat is known from several occurrences in the vicinity of the PSA, the nearest of which are just over 1 mile away from the PSA (CDFW 2015c). The scrub communities within the PSA provide suitable habitat for this species. Although this species was not observed during reconnaissance-level surveys conducted by PCR in 2012 and 2013, the presence of suitable habitat and nearby occurrences results in the potential for Stephens' kangaroo rat to be impacted by project-related activities. This species is covered under the MSHCP; furthermore, the project is in the Stephens' Kangaroo Rat Mitigation Fee Area (Riverside County Ordinance 663).

3.3.2 REGULATORY FRAMEWORK

This section identifies environmental review and consultation requirements, as well as permits and approvals that must be obtained from local, state, and federal agencies prior to implementation of the project.

FEDERAL

Endangered Species Act

The Endangered Species Act of 1973 (ESA), as amended, provides protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code [USC] Sections 1531–1544). The ESA defines “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Title 50, Part 222, of the Code of Federal Regulations (50 CFR Section 222) further defines “harm” to include “an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering.”

ESA Section 7(a)(1) requires federal agencies to utilize their authority to further the conservation of listed species. ESA Section 7(a)(2) requires consultation with the USFWS or the National Marine Fisheries Service (NMFS) if a federal agency undertakes, funds, permits, or authorizes (termed the federal nexus) any action that may affect endangered or threatened species, or designated critical habitat. For projects that may result in the incidental “take” of threatened or endangered species, or critical habitat, and that lack a federal nexus, a Section 10(a)(1)(b) incidental take permit can be obtained from the USFWS and/or the NMFS.

Clean Water Act

The basis of the Clean Water Act (CWA) was established in 1948; however, it was referred to as the Federal Water Pollution Control Act. The act was reorganized and expanded in 1972 (33 USC Section 1251), and at that time the Clean Water Act became the act's commonly used name.

The basis of the CWA is the regulation of pollutant discharges into waters of the United States, as well as the establishment of surface water quality standards.

Section 404

CWA Section 404 (33 USC Section 1344) established the program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Under this regulation, certain activities proposed within waters of the United States require the obtainment of a permit prior to initiation. These activities include, but are not limited to, placement of fill for the purposes of development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and bridges), and mining operations.

The primary objective of this program is to ensure that the discharge of dredged or fill material is not permitted if a practicable alternative to the proposed activities exists that results in less impact to waters of the United States or the proposed activity would result in significant adverse impacts to these waters. To comply with these objectives, a permittee must document the measures taken to avoid and minimize impacts to waters of the United States and provide compensatory mitigation for any unavoidable impacts.

The US Environmental Protection Agency (EPA) and the USFWS are assigned roles and responsibilities in the administration of this program; however, the USACE is the lead agency in the administration of day-to-day activities, including issuance of permits. The agencies will typically assert jurisdiction over the following waters: (1) traditional navigable waters (TNW); (2) wetlands adjacent to TNWs; (3) relatively permanent waters (RPW) that are non-navigable tributaries to TNWs and have relatively permanent flow or seasonally continuous flow (typically three months); and (4) wetlands that directly abut RPWs. Case-by-case investigations are usually conducted by the agencies to ascertain their jurisdiction over waters that are non-navigable tributaries and do not contain relatively permanent or seasonal flow, wetlands adjacent to the aforementioned features, and wetlands adjacent to but not directly abutting RPWs (USACE 2007). Jurisdiction is not generally asserted over swales or erosional features (e.g., gullies or small washes characterized by low-volume/short-duration flow events) or ditches constructed wholly within and draining only uplands that do not have relatively permanent flows.

The extent of jurisdiction within waters of the United States that lack adjacent wetlands is determined by the ordinary high water mark, which is defined in 33 CFR Section 328.3(e) as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." Wetlands are further defined under 33 CFR Section 328.3 and 40 CFR Section 230.3 as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" and typically include "swamps, marshes, bogs, and similar areas." The *Corps of Engineers Wetland Delineation Manual* (1987 Manual) sets forth a standardized methodology for delineating the extent of wetlands under federal jurisdiction (USACE 1987).

The 1987 Manual outlines three parameters that all wetlands, under normal circumstances, must contain positive indicators for to be considered jurisdictional. These parameters include (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils (USACE 1987). In 2006, the USACE issued a series of regional supplements to address regional differences that are important to the functioning and identification of wetlands. The supplements present "wetland indicators,

3.3 BIOLOGICAL AND NATURAL RESOURCES

delineation guidance, and other information” that is specific to the region. The USACE requires that wetland delineations submitted after June 5, 2007, be conducted in accordance with both the 1987 Manual and the applicable supplement.

Section 401

Under CWA Section 401 (33 USC Section 1341), federal agencies are not authorized to issue a permit and/or license for any activity that may result in discharges to waters of the United States, unless a state or tribe where the discharge originates either grants or waives CWA Section 401 certification. CWA Section 401 provides states or tribes with the ability to grant, grant with conditions, deny, or waive certification. Granting certification, with or without conditions, allows the federal permit/license to be issued and remain consistent with any conditions set forth in the CWA Section 401 certification. Denial of the certification prohibits the issuance of the federal license or permit, and waiver allows the permit/license to be issued without state or tribal comment. Decisions made by states or tribes are based on the proposed project’s compliance with EPA water quality standards as well as applicable effluent limitations guidelines, new source performance standards, toxic pollutant restrictions, and any other appropriate requirements of state or tribal law. In California, the State Water Resources Control Board is the primary regulatory authority for CWA Section 401 requirements (additional details below).

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC Sections 703–711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Section 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Section 21). The majority of birds found in the project vicinity would be protected under the MBTA.

Bald and Golden Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald and Golden Eagle Protection Act (16 USC Sections 668–668c). Under the act, it is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export, or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

Executive Order 13112 – Invasive Species

This executive order directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. The order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species. As part of the proposed action, the USFWS and the USACE would issue permits and therefore would be responsible for ensuring that the proposed action complies with Executive Order 13112 and does not contribute to the spread of invasive species.

Fish and Wildlife Coordination Act of 1958 (16 USC 661 et seq.)

The Fish and Wildlife Coordination Act requires that whenever any body of water is proposed or authorized to be impounded, diverted, or otherwise controlled or modified, the lead federal agency must consult with the USFWS, the state agency responsible for fish and wildlife management, and the National Marine Fisheries Service. Section 662(b) of the act requires the lead federal agency to consider the recommendations of the USFWS and other agencies. The recommendations may include proposed measures to mitigate or compensate for potential damages to wildlife and fisheries associated with a modification of a waterway.

Executive Order 11990 Protection of Wetlands (42 FR 26961, May 25, 1977)

Executive Order 11990 requires federal agencies to provide leadership and take action to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural qualities of these lands. Federal agencies are required to avoid undertaking or providing support for new construction located in wetlands unless (1) no practicable alternative exists and (2) all practical measures have been taken to minimize harm to wetlands.

STATE

California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC Section 2070). The CDFW also maintains a list of "candidate species," which are species formally noticed as being under review for potential addition to the list of endangered or threatened species, and a list of "species of special concern," which serve as a species "watch lists."

Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of the CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit.

California Fish and Game Code

Streambed Alteration Agreement (FGC Sections 1600–1607)

State and local public agencies are subject to FGC Section 1602, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as waters of the State by the CDFW. Under FGC Section 1602, a discretionary Streambed Alteration Agreement must be issued by the CDFW to the project proponent prior to the initiation of construction activities on lands under CDFW jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

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Native Plant Protection Act

The Native Plant Protection Act (FGC Sections 1900–1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by the CDFW). An exception in the act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give that state agency at least 10 days to retrieve the plants before they are plowed under or otherwise destroyed (FGC Section 1913). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

Birds of Prey

Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

“Fully Protected” Species

California statutes also afford “fully protected” status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be “taken,” even with an incidental take permit. FGC Section 3505 makes it unlawful to take “any egret or egret, osprey, bird of paradise, goura, numidi, or any part of such a bird. FGC Section 3511 protects from take the following fully protected birds: (a) American peregrine falcon (*Falco peregrinus anatum*); (b) brown pelican (*Pelecanus occidentalis*); (c) California black rail (*Laterallus jamaicensis coturniculus*); (d) California clapper rail (*Rallus longirostris obsoletus*); (e) California condor (*Gymnogyps californianus*); (f) California least tern (*Sterna albifrons browni*); (g) golden eagle; (h) greater sandhill crane (*Grus canadensis tabida*); (i) light-footed clapper rail (*Rallus longirostris levipes*); (j) southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); (k) trumpeter swan (*Cygnus buccinator*); (l) white-tailed kite (*Elanus leucurus*); and (m) Yuma clapper rail (*Rallus longirostris yumanensis*).

FGC Section 4700 identifies the following fully protected mammals that cannot be taken: (a) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*); (b) bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*); (c) Northern elephant seal (*Mirounga angustirostris*); (d) Guadalupe fur seal (*Arctocephalus townsendi*); (e) ring-tailed cat (genus *Bassariscus*); (f) Pacific right whale (*Eubalaena sieboldi*); (g) salt-marsh harvest mouse (*Reithrodontomys raviventris*); (h) southern sea otter (*Enhydra lutris nereis*); and (i) wolverine (*Gulo gulo*).

FGC Section 5050 protects from take the following fully protected reptiles and amphibians: (a) blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*); (b) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*); (c) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*); (d) limestone salamander (*Hydromantes brunus*); and (e) black toad (*Bufo boreas exsul*).

FGC Section 5515 identifies certain fully protected fish that cannot lawfully be taken, even with an incidental take permit. The following species are protected in this fashion: (a) Colorado River squawfish (*Ptychocheilus lucius*); (b) thicktail chub (*Gila crassicauda*); (c) Mohave chub (*Gila mohavensis*); (d) Lost River sucker (*Catostomus luxatus*); (e) Modoc sucker (*Catostomus microps*); (f) shortnose sucker (*Chasmistes brevirostris*); (g) humpback sucker (*Xyrauchen*

texanus); (h) Owens River pupfish (*Cyprinodon radiosus*); (i) unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and (j) rough sculpin (*Cottus asperimus*).

California Wetlands and Other Waters Policies

The California Resources Agency and its various departments do not authorize or approve projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands. Exceptions may be granted if all of the following conditions are met:

- The project is water-dependent.
- No other feasible alternative is available.
- The public trust is not adversely affected.
- Adequate compensation is proposed as part of the project.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1966 (California Water Code Section 13000 et seq.; CCR Title 23, Chapter 3, Subchapter 15) is the primary state regulation that addresses water quality. The requirements of the act are implemented at the state level by the State Water Resources Control Board and at the local level by the Regional Water Quality Control Board (RWQCB). The RWQCB carries out planning, permitting, and enforcement activities related to water quality in California. The act provides for waste discharge requirements and a permitting system for discharges to land or water. Certification is required by the RWQCB for activities that can affect water quality.

Clean Water Act, Section 401 Water Quality Certification

CWA Section 401 (33 USC Section 1341) requires that any applicant for a federal license or permit which may result in a pollutant discharge to waters of the United States obtain a certification that the discharge will comply with EPA water quality standards. The state or tribal agency responsible for issuance of the Section 401 certification may also require compliance with additional effluent limitations and water quality standards set forth in state/tribal laws. In California, the RWQCB is the primary regulatory authority for CWA Section 401 requirements.

The San Diego RWQCB is responsible for enforcing water quality criteria and protecting water resources in the PSA. In addition, both Regional Water Quality Control Boards are responsible for controlling discharges to surface waters of the state by issuing waste discharge requirements (WDR) or commonly by issuing conditional waivers to WDRs. The RWQCB requires that a project proponent obtain a CWA Section 401 water quality certification for CWA Section 404 permits issued by the USACE. A request for water quality certification (including WDRs) by the RWQCB and an application for a General Permit for Storm Water Discharges Associated with Construction Activities are prepared and submitted following completion of the CEQA environmental document and submittal of the wetland delineation to the USACE.

Delegated Permit Authority

California has been delegated permit authority for the National Pollutant Discharge Elimination System (NPDES) permit program, including stormwater permits for all areas except tribal lands. Issuance of CWA Section 404 dredge and fill permits remains the responsibility of the USACE;

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however, the state actively uses its CWA Section 401 certification authority to ensure CWA Section 404 permits are in compliance with state water quality standards.

State Definition of Covered Waters

Under California law, waters of the State means “any surface water or groundwater, including saline waters, within the boundaries of the state.” Therefore, water quality laws apply to both surface water and groundwater. After the US Supreme Court decision in *Solid Waste Agency of Northern Cook County v. US Army Corps of Engineers*, the Office of Chief Counsel of the State Water Resources Control Board released a legal memorandum confirming the State’s jurisdiction over isolated wetlands. The memorandum stated that under the California Porter-Cologne Water Quality Control Act (Porter-Cologne), discharges to wetlands and other waters of the State are subject to state regulation, and this includes isolated wetlands. In general, the Board regulates discharges to isolated waters in much the same way as it does for waters of the United States, using Porter-Cologne rather than Clean Water Act authority.

NONGOVERNMENTAL AGENCY

California Native Plant Society

The California Native Plant Society is a nongovernmental agency that classifies native plant species according to current population distribution and threat level in regard to extinction. These data are utilized by the CNPS to create/maintain a list of native California plants that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the CNPS (2015) Inventory of Rare, Threatened, and Endangered Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

The following identifies the definitions of the CNPS listings:

List 1A: Plants believed to be extinct

List 1B: Plants that are rare, threatened, or endangered in California and elsewhere

List 2: Plants that are rare, threatened, or endangered in California, but are more numerous elsewhere

All of the plant species on List 1 and 2 meet the requirements of the Native Plant Protection Act Section 1901, Chapter 10, or FGC Section 2062 and Section 2067 and are eligible for state listing. Plants appearing on List 1 or 2 are considered to meet the criteria of CEQA Section 15380, and effects on these species are considered “significant.” Classifications of plants on List 3 (plants about which more information is needed) and/or List 4 (plants of limited distribution), as defined by the CNPS, are not currently protected under state or federal law. Therefore, no detailed descriptions were provided or impact analysis was performed on species with these classifications.

LOCAL

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multijurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in western Riverside

County. This plan is one of several large, multijurisdictional habitat-planning efforts in Southern California with the overall goal of maintaining biological and ecological diversity in a rapidly urbanizing region. The MSHCP will allow Riverside County and its cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of the state and federal Endangered Species Acts. The MSHCP serves as a habitat conservation plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (16 USC 1531 et seq.), as well as a natural community conservation plan (NCCP) under the NCCP Act of 2001 (Fish and Game Code Section 2800 et seq.). The MSHCP allows the participating jurisdictions to authorize take of plant and wildlife species identified within the plan area. The USFWS and the CDFW have authority to regulate the take of threatened, endangered, and rare species. Under the MSHCP, the wildlife agencies have granted take authorization for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside of the MSHCP conservation area, in exchange for the assembly and management of a coordinated MSHCP conservation area. The MSHCP is a criteria-based plan and does not rely on a hardline preserve map. Instead, within the MSHCP Plan Area, the MSHCP reserve will be assembled over time from a smaller subset of the Plan Area referred to as the Criteria Area. The Criteria Area consists of Criteria Cells (Cells) or Cell Groupings, and flexible guidelines (criteria) for the assembly of conservation within the Cells or Cell Groupings. Cells and Cell Groupings also may be included within larger units known as Cores, Linkages, or Non-Contiguous Habitat Blocks.

City of Wildomar

General Plan

The General Plan includes the following policies to address effects of prospective development on biological resources. The policies directly or indirectly address the direct mortality of individuals of listed, proposed, or candidate species or loss of habitat occupied by such species.

Open Space Policy 5.1: Substantially alter floodways or implement other channelization only as a “last resort,” and limit the alteration to: (a) that necessary for the protection of public health and safety only after all other options are exhausted; (b) essential public service projects where or other feasible construction method or alternative project location exists; or (c) projects where primary function is improvement of fish and wildlife habitat.

Open Space Policy 5.2: If substantial modification to a floodway is proposed, design it to reduce adverse environmental effects to the maximum extent feasible, considering the following factors: (a) stream scour; (b) erosion protection and sedimentation; (c) wildlife habitat and linkages; (d) groundwater recharge capability; (e) adjacent property; (f) design (a natural effect, examples could include soft riparian bottoms and gentle bank slopes, wide and shallow floodways, minimization of visible use of concrete, and landscaping with native plants to the maximum extent possible). A site-specific hydrologic study may be required.

Open Space Policy 5.3: Based upon site-specific study, all development shall be set back from the floodway boundary a distance adequate to address the following issues:

- a. Public safety;
- b. Erosion;
- c. Riparian or wetland buffer;

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- d. Wildlife movement corridor or linkage; and
- e. Slopes.

Open Space Policy 5.5: Development shall preserve and enhance existing native riparian habitat and prevent obstruction of natural watercourses. Incentives shall be utilized to the maximum extent possible.

Open Space Policy 5.6: Identify and, to the maximum extent feasible, conserve remaining upland habitat adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife species associated with those wetland and riparian areas.

Open Space Policy 5.7: Where land is prohibited from development due to its retention as natural floodways, floodplains and water courses, incentives should be available to the owner of such the land including density transfer and other mechanisms as may be adopted. These incentives will be provided for the purpose of encouraging the preservation of natural watercourses without creating undue hardship on the owner of properties following these policies.

Open Space Policy 6.1: During the development review process, ensure compliance with the Clean Water Act's Section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.

Open Space Policy 6.2: Preserve buffer zones around wetlands where feasible and biologically appropriate.

Open Space Policy 8.1: Cooperate with federal and state agencies to achieve the sustainable conservation of forest land as a means of providing open space and protecting natural resources and habitat lands included in the MSHCPs.

Open Space Policy 9.3: Maintain and conserve superior examples of native trees, natural vegetation, stands of established trees, and other features for ecosystem, aesthetic, and water conservation purposes.

Open Space Policy 17.1: Enforce the provisions of applicable MSHCPs, if adopted, when conducting review of development applications.

Open Space Policy 17.2: Enforce the provisions of applicable MSHCPs, if adopted, when developing transportation or infrastructure projects that have been designated as covered activities in the applicable MSHCPs.

Open Space Policy 17.3: Enforce the provisions of applicable MSHCPs, if adopted, when conducting review of possible general plan amendments and/or zoning changes.

Open Space Policy 18.1: Preserve multi-species habitat resources in the County of Riverside through the enforcement of the provisions of applicable MSHCPs, if adopted.

Open Space Policy 18.2: Provide incentives to landowners that will encourage the protection of significant resources in the County beyond the preservation and/or conservation required to mitigate project impacts.

3.3.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance:

- 1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS.
- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or the USFWS.
- 3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- 4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- 5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- 6) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.
- 7) Reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels.

METHODOLOGY

The impact assessment below discusses impacts from implementation of project activities. The impact assessment was based on the project description (Section 2.0), the report produced by PCR (see **Appendix 3.3-A**), information described in the environmental setting, and the standards of significance described above. In addition, the impact analysis is organized by the significance criteria noted above: special-status plant and wildlife species, sensitive vegetation communities, federally protected wetlands, wildlife movement corridors, and compliance with local plans and policies or existing habitat conservation plans. Each impact category includes a description of the specific potential impacts as well as avoidance, minimization, and mitigation measures that can potentially reduce and mitigate potentially significant impacts, where necessary. The reader is referred to Section 2.0, Project Description, for specific details on the project.

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PROJECT IMPACTS AND MITIGATION MEASURES

Impacts to Candidate, Sensitive, or Special-Status Species (Standards of Significance 1 and 7)

Impact 3.3.1 Implementation of project-related activities could result in substantial adverse effects, either directly or through habitat modifications, to special-status species, which would be considered a **potentially significant** impact.

Suitable habitat for Parry's spineflower, smooth tarplant, orange-throated whiptail, red-diamond rattlesnake, coast horned lizard, burrowing owl, loggerhead shrike, coastal California gnatcatcher, northwestern San Diego pocket mouse, Los Angeles pocket mouse, Stephen's kangaroo rat, and San Diego black-tailed jackrabbit exists within the PSA. All of these species are covered under the MSHCP. The MSHCP and the Stephen's Kangaroo Rat Habitat Conservation Plan have been analyzed under CEQA. Project compliance with these plans fully mitigates impacts for these covered species. Furthermore, with the project's consistency with the MSHCP, with coverage afforded by the MSHCP, and the mitigation measures specified herein, direct, indirect, and cumulative impacts to biological resources will be **less than significant**.

To ensure compliance with the requirements of the MSHCP, additional surveys are required for burrowing owl. Therefore, mitigation measures **MM 3.3.1a** and **MM 3.3.1b** are required to ensure MSHCP compliance.

The PSA may also provide nesting and/or foraging habitat for migratory birds not identified in **Table 3.3-1**. All native breeding birds (except game birds during the hunting season), regardless of their listing status, are protected under the MBTA. Vegetation clearing in undisturbed portions of the PSA, during the nesting season, could result in direct impacts to nesting birds should they be present. Furthermore, noise and other human activity may result in nest abandonment if nesting birds are present within 200 feet of a work site. Due to the presence of suitable habitat for these species, implementation of project-related activities may result in adverse impacts should they be present in areas proposed for disturbance. In order to reduce potential impacts to a **less than significant** level, mitigation measure **MM 3.3.1c** is required.

Mitigation Measures

MM 3.3.1a Per MSHCP Species-Specific Objective 6, preconstruction presence/absence surveys for burrowing owl within the project site, where suitable habitat is present, will be conducted for all covered activities through the life of the building permit. Surveys will be conducted within 30 days prior to disturbance. Take of active nests will be avoided. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed.

Surveys shall be completed for occupied burrowing owl burrows within all construction areas and within 500 feet (150 meters) of the project work areas (where possible and appropriate based on habitat). All occupied burrows will be mapped on an aerial photo.

Timing/Implementation: Prior to any vegetation removal or ground-disturbing activities

Enforcement/Monitoring: City of Wildomar Planning and Public Works Departments

MM 3.3.1b If burrowing owls are found to be present on-site, the project applicant shall develop a conservation strategy in cooperation with the CDFW, the USFWS, and the Regional Conservation Authority in accordance with the CDFW's (2012) *Staff Report on Burrowing Owl Mitigation*.

Timing/Implementation: Prior to any vegetation removal or ground-disturbing activities

Enforcement/Monitoring: City of Wildomar Planning and Public Works Departments

MM 3.3.1c If clearing and/or construction activities will occur during the migratory bird nesting season (February 15 through August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 3 days prior to construction initiation. Preconstruction surveys must be performed by a qualified biologist for the purpose of determining the presence/absence of active nest sites within the proposed impact area and a 200-foot setback. If no active nests are found, no further mitigation is required. If construction is delayed or suspended for more than 14 days after the survey, the area shall be resurveyed.

If active nest sites are identified within 200 feet of project activities, the City shall impose an exclusionary setback for all active nest sites prior to commencement of any project-related activities to avoid maintenance- or access-related disturbances to nesting migratory birds. A setback constitutes an area where project-related activities (i.e., vegetation removal and earth moving) shall not occur, and shall be imposed within 100 feet of any active nest sites until the nest is deemed inactive by a qualified biologist. Activities permitted within the setback and the size (i.e., 100 feet) of setbacks may be adjusted through consultation with the CDFW.

Timing/Implementation: Prior to construction

Enforcement/Monitoring: City of Wildomar Planning and Public Works Department

Impacts to Sensitive Biological Communities, Riparian Habitat, or Federally Protected Waters (Standards of Significance 2 and 3)

Impact 3.3.2 Implementation of the proposed project could result in impacts to sensitive biological communities, riparian habitat, and/or federally protected wetlands, which would be a **potentially significant** impact.

Sensitive habitats include those that are of special concern to resource agencies and those that are protected under the MSHCP, CEQA, Fish and Game Code Section 1600, and Clean Water Act Section 404. No sensitive biological communities are present in the PSA. The PSA supports predominantly non-native and limited native plant communities that are not considered sensitive pursuant to the CDFW, the USFWS, or the MSHCP.

The PSA includes an ephemeral drainage that is considered a jurisdictional streambed pursuant to FGC Section 1602, as regulated by the CDFW. Permanent or temporary impacts are proposed to the entire portion of the drainage in the PSA (see Figure 13 in **Appendix 3.3**). Implementation

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of mitigation measure **MM 3.3.2** would reduce impacts to CDFW jurisdictional features to a **less than significant** level by complying with FGC Section 1602, including applying for a permit and compensatory mitigation.

No federally protected wetlands occur within the PSA; however, the ephemeral drainage is considered waters of the United States and activities resulting in fill to this feature are regulated by the USACE through Clean Water Act Section 404 and by the RWQCB through Clean Water Act Section 401. Both permanent and temporary impacts are proposed to the entire portion of drainage in the PSA. Implementation of mitigation measure **MM 3.3.2** would reduce impacts to waters of the United States to a **less than significant** level by complying with Sections 404 and 401 of the Clean Water Act, including obtaining authorization and implementing required mitigation from the USACE and the RWQCB, respectively.

Mitigation Measures

MM 3.3.2

Prior to the issuance of any grading permits, the project applicant shall obtain a Clean Water Act Section 404 permit from the US Army Corps of Engineers, a Clean Water Act Section 401 permit from the Regional Water Quality Control Board, and a Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the California Department of Fish and Wildlife for impacts to jurisdictional features. The following shall be incorporated into the permitting, subject to approval by the regulatory agencies:

1. Off-site replacement and/or restoration of USACE/RWQCB jurisdictional waters of the United States/waters of the State within the Santa Margarita watershed at a ratio no less than 1:1 or within an adjacent watershed within Riverside County at a ratio no less than 2:1 for permanent impacts and for any temporary impacts to restore the impact area to pre-project conditions (i.e., pre-project contours and revegetate where applicable). Off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank.
2. Off-site replacement and/or replacement of CDFW jurisdictional streambed and associated riparian habitat within the Santa Margarita watershed at a ratio no less than 1:1 or within an adjacent watershed within Riverside County at a ratio no less than 2:1 for permanent impacts and for any temporary impacts to restore the impact area to pre-project conditions (i.e., pre-project contours and revegetate where applicable). Off-site mitigation may occur on land acquired for the purpose of in-perpetuity preservation, or through the purchase of mitigation credits at an agency-approved off-site mitigation bank.

Purchase of mitigation credits through an agency-approved mitigation bank or in-lieu fee program shall occur prior to any impacts to jurisdictional drainages. Mitigation proposed on land acquired for the purpose of in-perpetuity mitigation that is not part of an agency-approved mitigation bank or in-lieu fee program shall include the preservation, creation, restoration, and/or enhancement of similar habitat pursuant to a Habitat Mitigation and Monitoring Plan. The plan shall be prepared prior to any impacts to jurisdictional features and shall provide details as to the

implementation of the mitigation, maintenance, and future monitoring. The goal of the mitigation shall be to preserve, create, restore, and/or enhance similar habitat with equal or greater function and value than the impacted habitat.

Timing/Implementation: Prior to project vegetation removal or ground-disturbing activities

Enforcement/Monitoring: City of Wildomar Planning and Public Works Departments

Impacts to the Movement of Native Resident or Migratory Fish or Wildlife Species or within Established Migratory Corridor (Standard of Significance 4)

Impact 3.3.3 Implementation of the proposed project could interfere with the movement of native resident or migratory fish or wildlife species. This is considered a **less than significant** impact.

The PSA supports potential live-in and movement habitat for species on a local scale, but it likely provides little to no function to facilitate wildlife movement on a regional scale, and is not identified as a regionally important dispersal or migration corridor. Thus, interference with wildlife movement will be minimal, and this impact will be **less than significant**.

Mitigation Measures

None required.

Conflict with Any Local Policies or Ordinances Protecting Biological Resources, Such as a Tree Preservation Policy or Ordinance (Standard of Significance 5)

Impact 3.3.4 Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources. There would be **no impact**.

Upon city incorporation, the City of Wildomar adopted County Ordinance 559, as amended, regulating the removal of trees. The ordinance regulates tree removal above the 5,000-foot elevation. The project site is not above 5,000 feet in elevation. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, including the City of Wildomar General Plan. As such, **no impact** is anticipated.

Mitigation Measures

None required.

Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan (Standard of Significance 6)

Impact 3.3.5 Implementation of the proposed project could conflict with the provisions of the Western Riverside County MSHCP. This would be considered a **potentially significant** impact.

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The MSHCP protects and preserves certain habitats and species in the region. The MSHCP delineates particular areas of concern through the identification of specific areas known as Criteria Cells. Areas identified as Criteria Cells typically contain certain restrictions on development and land alterations. The PSA is not within a Criteria Cell or any other special conservation area. The project site is, however, still subject to be reviewed for consistency with Section 6.1.2–Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool, Section 6.1.3–Protection of Narrow Endemic Plant Species, Section 6.3.2–Additional Survey Needs and Procedures, and Section 6.1.4–Guidelines Pertaining to the Urban/Wildlands Interface of the MSHCP. A discussion of the proposed project’s consistency with these MSHCP sections follows. A full analysis of the proposed project’s consistency with the MSHCP can be found in **Appendix 3.3**.

Consistency with MSHCP Section 6.1.2: Section 6.1.2 addresses preservation of riparian, riverine, vernal pool, and fairy shrimp habitats. No vernal pool features or other fairy shrimp habitats occur on-site, and thus, no impacts to these features will occur as a result of project implementation. There are, however, riverine habitats on-site which will be permanently and temporarily impacted as a result of project-related activities. A Determination of Biological Equivalent or Superior Preservation (DBESP; **Appendix 3.3**) has been prepared. The DBESP outlines the impacts and proposed compensatory mitigation for impacts to riverine areas. The DBESP will ensure that the project is consistent with Section 6.1.2.

Consistency with MSHCP Section 6.1.3: Section 6.1.3 sets forth survey requirements for certain narrow endemic plants. The project site is not located within the Narrow Endemic Plant Species Survey Area and therefore would be consistent with Section 6.1.3.

Consistency with MSHCP Section 6.1.4: Section 6.1.4 addresses the need for certain projects to incorporate measures to address urban/wildland interfaces in or near the MSHCP conservation area. The project site is not located within or adjacent to any MSHCP conservation areas that would require the need for implementation of the Urban/Wildland Interface Guidelines; therefore, the project is consistent with Section 6.1.4.

Consistency with MSHCP Section 6.3.2: Section 6.3.2 sets forth the survey requirements for various plant and animal surveys. The project is not located within a Criteria Area Species Survey Area; however, the project is located in an additional survey area for burrowing owl. Focused surveys for burrowing owl were conducted in 2013 in accordance with the Burrowing Owl Survey Instructions for the Western Riverside MSHCP Area (**Appendix 3.3**). Suitable burrowing owl habitats consisting of open expanses of sparsely vegetated areas on gentle rolling or level terrain were found on-site. In addition, burrows capable of being used for nesting or roosting by burrowing owls were found on-site. No burrowing owls or their sign were documented during the focused surveys; however, burrowing owls have the potential to become established in the future due to the presence of suitable habitat. As a result, implementation of the proposed project could result in impacts to this species. However, implementation of mitigation measures **MM 3.3.1a** and **MM 3.3.1b** would ensure through preconstruction survey and avoidance that impacts to burrowing owls will be mitigated to a less than significant level with mitigation incorporated. As such, the project is consistent with Section 6.3.2.

A final component of the MSHCP is Mitigation Fee Areas, which are land areas that occur within the MSHCP and require a fee for development activities to occur. These fees are utilized to fund the minimization to certain endemic species. The proposed project is located within the MSHCP Mitigation Fee Area (Riverside County Ordinance 810.2) and the Stephens’ Kangaroo Rat Mitigation Fee Area (Riverside County Ordinance 663). A standard condition for the proposed project includes the payment of these fees to comply with the overlying habitat conservation plan (the MSHCP).

As demonstrated in the analysis by PCR (2013) (see **Appendix 3.3**), the proposed project is consistent with the MSHCP. With adherence to the standard conditions and requirements, any impacts will be less than significant with mitigation incorporated. In addition, implementation of mitigation measures **MM 3.3.1a** and **MM 3.3.1b** included above will result in the project having **less than significant** with regard to the MSHCP.

Standard Conditions and Requirements

The project applicant is required to submit fees to the City in accordance with the requirements of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Mitigation Fee Areas, including the MSHCP Mitigation Fee and the Stephens' Kangaroo Rat Mitigation Fee.

Prior to the issuance of any grading permits, the DBESP analysis prepared by the project applicant will need to be submitted to and approved by the RCA, the CDFW, and the USFWS. The DBESP outlines the impacts and proposed compensatory mitigation for impacts to riverine areas.

Mitigation Measures

Implement mitigation measures **MM 3.3.1a** and **MM 3.3.1b**.

3.3.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting includes the project site as well as the still-undeveloped areas surrounding the project site where the impacts of urbanization and threats to biological diversity and sensitive biological resources are considered most serious. The impacts on biological resources are primarily the result of urbanization of the area, habitat fragmentation, water pollution, and conversion of natural land to residential, commercial, and recreational use.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Biological Resources

Impact 3.3.6 Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in the immediate area of the proposed project, will result in the conversion of habitat and impact biological resources. This impact is considered **less than cumulatively considerable**.

The City, along with other jurisdictions in western Riverside County, participates in the MSHCP. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres in western Riverside County. Project compliance with the MSHCP and the Stephens' Kangaroo Rat Habitat Conservation Plan fully mitigates for impacts on covered species and ensures that large segments of natural communities in western Riverside County will be preserved.

Adherence to the standards and conditions, and implementation of mitigation measures **MM 3.3.1a** and **MM 3.3.1b**, ensure the project will be compliant with the MSHCP. In addition, implementation of mitigation measure **MM 3.3.1c** ensures that impacts to nesting birds are minimized. Finally, implementation of mitigation measure **MM 3.3.2** will ensure that impacts to jurisdictional features are minimized. Though the development of the proposed project will

3.3 BIOLOGICAL AND NATURAL RESOURCES

continue the urbanization of the area, participation in and implementation of the MSHCP will effectively reduce the project's impacts to a **less than cumulatively considerable** level.

Mitigation Measures

Implement mitigation measures **MM 3.3.1a**, **MM 3.3.1b**, **MM 3.3.1c**, and **MM 3.3.2**.

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3.4 CLIMATE CHANGE AND GREENHOUSE GASES

3.4 CLIMATE CHANGE AND GREENHOUSE GASES

This section includes a description of the proposed project's contribution of greenhouse gas (GHG) emissions and the associated effects of climate change. The reader is referred to Section 3.2, Air Quality, for a discussion of project impacts associated with air quality. This section is based on the analysis conducted by Urban Crossroads in 2015 (see **Appendix 3.4**).

3.4.1 EXISTING SETTING

EXISTING CLIMATE SETTING

Since the early 1990s, scientific consensus holds that the world's population is releasing GHGs faster than the earth's natural systems can absorb them. These gases are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities and natural sources. This release of gases, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as "the greenhouse effect," human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to a warming of the earth and has the potential to severely impact the earth's climate system.

While often used interchangeably, there is a difference between the terms *climate change* and *global warming*. According to the National Academy of Sciences, climate change refers to any significant, measurable change of climate lasting for an extended period of time that can be caused by both natural factors and human activities. Global warming, on the other hand, is an average increase in the temperature of the atmosphere caused by increased GHG emissions. The use of the term *climate change* is becoming more prevalent because it encompasses all changes to the climate, not just temperature.

To fully understand global climate change, it is important to recognize the naturally occurring greenhouse effect and to define the GHGs that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are CO₂, CH₄, N₂O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

Table 3.4-1 provides descriptions of the primary GHGs attributed to global climate change, including a description of their physical properties, primary sources, and contribution to the greenhouse effect.

3.4 CLIMATE CHANGE AND GREENHOUSE GASES

**TABLE 3.4-1
GREENHOUSE GASES**

Greenhouse Gas	Description
Carbon Dioxide (CO ₂)	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
Methane (CH ₄)	Methane is a colorless, odorless gas. It is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
Nitrous Oxide (N ₂ O)	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. Nitrous oxide is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: ¹ EPA 2011a, ² EPA 2011b, ³ EPA 2010

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Methane traps over 21 times more heat per molecule than CO₂, and N₂O absorbs 310 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted. **Table 3.4-2** shows the GWPs for different greenhouse gases for a 100-year time horizon.

**TABLE 3.4-2
GLOBAL WARMING POTENTIAL FOR GREENHOUSE GASES**

Greenhouse Gas	Global Warming Potential
Carbon Dioxide (CO ₂)	1
Methane (CH ₄)	21
Nitrous Oxide (N ₂ O)	310

Source: California Climate Action Registry 2009

As the name implies, global climate change is a global problem. Greenhouse gases are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is a significant emitter of CO₂e in the world and produced 452 million gross metric tons of CO₂e in 2010 (CARB 2013). Consumption of fossil

fuels in the transportation sector was the single largest source of California's GHG emissions in 2010, accounting for 38.3 percent of total GHG emissions in the state (CARB 2013). This category was followed by the electric power sector (including both in-state and out-of-state sources) (20.7 percent) and the industrial sector (19.0 percent) (CARB 2013).

EFFECTS OF GLOBAL CLIMATE CHANGE

California can draw on substantial scientific research conducted by experts at various universities and research institutions. With more than a decade of concerted research, scientists have established that the early signs of climate change are already evident in the state—as shown, for example, in increased average temperatures, changes in temperature extremes, reduced snowpack in the Sierra Nevada, sea level rise, and ecological shifts.

Many of these changes are accelerating locally, across the country, and around the globe. As a result of emissions already released into the atmosphere, California will face intensifying climate change in coming decades (CNRA 2009). Generally, research indicates that California should expect overall hotter and drier conditions, with a continued reduction in winter snow (with concurrent increases in winter rains), as well as increased average temperatures and accelerating sea-level rise. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing (CNRA 2009).

Climate change temperature projections identified in the 2009 California Climate Adaptation Strategy suggest the following:

- Average temperature increase is expected to be more pronounced in the summer than in the winter season.
- Inland areas are likely to experience more pronounced warming than coastal regions.
- Heat waves are expected to increase in frequency, with individual heat waves also showing a tendency toward becoming longer and extending over a larger area, thus more likely to encompass multiple population centers in California at the same time.
- As GHGs remain in the atmosphere for decades, temperature changes over the next 30 to 40 years are already largely determined by past emissions. By 2050, temperatures are projected to increase by an additional 1.8 to 5.4 degrees Fahrenheit (°F) (an increase one to three times as large as that which occurred over the entire twentieth century).
- By 2100, the models project temperature increases between 3.6 and 9°F. (CNRA 2009)

According to the 2009 California Climate Adaptation Strategy, the impacts of climate change in California have the potential to include, but are not limited to, the areas discussed in **Table 3.4-3**.

3.4 CLIMATE CHANGE AND GREENHOUSE GASES

**TABLE 3.4-3
POTENTIAL STATEWIDE IMPACTS FROM CLIMATE CHANGE**

Potential Statewide Impact	Description
Public Health	<p>Climate change is expected to lead to an increase in ambient (i.e., outdoor) average air temperature, with greater increases expected in summer. Larger temperature increases are anticipated in inland communities as compared to the California coast. The potential health impacts from sustained and significantly higher than average temperatures include heat stroke, heat exhaustion, and the exacerbation of existing medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Numerous studies have indicated that there are generally more deaths during periods of sustained higher temperatures. The elderly, infants, and socially isolated people with pre-existing illnesses who lack access to air conditioning or cooling spaces are among the most at risk during heat waves.</p>
Floods and Droughts	<p>The impacts of flooding may include population displacement, severe psychosocial stress with resulting mental health impacts, exacerbation of pre-existing chronic conditions, and infectious disease. Additionally, impacts can range from a loss of personal belongings, and the emotional ramifications from such loss, to direct injury and/or mortality.</p> <p>Drinking water contamination outbreaks in the United States are associated with extreme precipitation events. Runoff from rainfall is also associated with coastal contamination that can lead to contamination of shellfish and contribute to food-borne illness. Floodwaters may contain household, industrial, and agricultural chemicals, as well as sewage and animal waste. Flooding and heavy rainfall events can wash pathogens and chemicals from contaminated soils, farms, and streets into drinking water supplies. Flooding may also overload storm and wastewater systems, or flood septic systems, also leading to possible contamination of drinking water systems.</p> <p>Drought impacts develop more slowly over time. Risks to public health that Californians may face from drought include impacts on water supply and quality, food production (both agricultural and commercial fisheries), and risks of waterborne illness. As surface water supplies are reduced as a result of drought conditions, the amount of groundwater pumping is expected to increase to make up for the water shortfall. The increase in groundwater pumping has the potential to lower the water tables and cause land subsidence. Communities that utilize well water will be adversely affected by drops in water tables or through changes in water quality. Groundwater supplies have higher levels of total dissolved solids compared to surface waters. This introduces a set of effects for consumers, such as repair and maintenance costs associated with mineral deposits in water heaters and other plumbing fixtures, and on public water system infrastructure designed for lower salinity surface water supplies. Drought may also lead to increased concentration of contaminants in drinking water supplies.</p>
Water Resources	<p>The state's water supply system already faces challenges to provide water for California's growing population. Climate change is expected to exacerbate these challenges through increased temperatures and possible changes in precipitation patterns. The trends of the last century, especially increases in hydrologic variability, will likely intensify in this century. The state can expect to experience more frequent and larger floods and deeper droughts. Rising sea level will threaten the Delta water conveyance system and increase salinity in near-coastal groundwater supplies.</p>
Forests and Landscapes	<p>Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, wildfire occurrence statewide could increase from 57% to 169% by 2085. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state.</p>

Source: CNRA 2009

3.4.2 REGULATORY FRAMEWORK

The adoption of recent legislation has provided a clear mandate that climate change must be included in an environmental review for a project subject to the California Environmental Quality Act (CEQA). Several GHG emission-related laws and regulations are discussed below.

STATE REGULATIONS

California has adopted various administrative initiatives and also enacted a variety of legislation relating to climate change, much of which sets aggressive goals for GHG emissions reductions within the state. However, none of this legislation provides definitive direction regarding the treatment of climate change in environmental review documents prepared under CEQA. In particular, the CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or specific thresholds of significance and do not specify GHG reduction mitigation measures. Instead, the guidelines allow lead agencies to choose methodologies and make significance determinations based on substantial evidence, as discussed in further detail below. In addition, no state agency has promulgated binding regulations for analyzing GHG emissions, determining their significance, or mitigating significant effects in CEQA documents. Thus, lead agencies exercise their discretion in determining how to analyze GHGs.

The discussion below provides a brief overview of the primary legislation relating to climate change that may affect the emissions associated with the proposed project. It begins with an overview of the primary regulatory acts that have driven GHG regulation and analysis in California.

Executive Order S-3-05 (Statewide GHG Targets)

California Executive Order S-03-05 (2005) mandates a reduction of GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Although the 2020 target has been incorporated into legislation (AB 32), the 2050 target remains only a goal of the Executive Order.

Executive Order B-30-15

California Executive Order B-30-15 (2015) mandates a reduction of GHG emissions of 40 percent below 1990 levels by 2030.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

The California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) instructs the California Air Resources Board (CARB) to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The act directed CARB to set a greenhouse gas emissions limit based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020 (1990 levels have been estimated to equate to 15 percent below 2005 emission levels). Based on CARB's calculations of emissions levels, California must reduce GHG emissions by approximately 15 percent below 2005 levels to achieve this goal.

3.4 CLIMATE CHANGE AND GREENHOUSE GASES

AB 32 Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business as usual"). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. Additional development of these measures and adoption of the appropriate regulations occurred through the end of year 2013. The key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions.
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, heavy-duty truck measures, and the Low Carbon Fuel Standard.
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation. (CARB 2008)

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relies on emissions projections updated in light of current economic forecasts that account for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This reduced the projected 2020 emissions from 596 million metric tons (MMT) CO₂e to 545 MMTCO₂e. The reduction in projected 2020 emissions means that the revised business-as-usual (BAU) reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent. CARB also provided a lower 2020 inventory forecast that took credit for certain State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from BAU needed to achieve the goals of AB 32 is approximately 16 percent.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal established in Executive Order S-3-05, though not yet adopted as state law, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The Scoping Plan update does not establish or propose any specific post-2020 goals,

but identifies such goals adopted by other governments or recommended by various scientific and policy organizations.

Assembly Bill 1493 and Advanced Clean Cars Program

AB 1493 (“the Pavley Standard,” 2005) (Health and Safety Code Sections 42823 and 43018.5) aimed to reduce GHG emissions from noncommercial passenger vehicles and light-duty trucks of model years 2009–2016. The bill also required the California Climate Action Registry to develop and adopt protocols for the reporting and certification of GHG emissions reductions from mobile sources for use by CARB in granting emissions reduction credits. The bill authorized CARB to grant emissions reduction credits for reductions in GHG emissions prior to the date of enforcement of regulations, using model year 2000 as the baseline for reduction.

In 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model years 2017–2025. The program combines the control of smog, soot, and GHG emissions with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Low Carbon Fuel Standard

Executive Order S-01-07 (2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the Low Carbon Fuel Standard (LCFS) as a discrete early action item under AB 32. The regulation took effect in 2010 and is codified at Title 17, California Code of Regulations, Sections 95480–95490. The LCFS will reduce greenhouse gas emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020. Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the “life cycle” of a transportation fuel.

Renewables Portfolio Standard (Senate Bill 1078, Senate Bill 107, and Senate Bill X1-2)

Established in 2002 under Senate Bill (SB) 1078, and accelerated in 2006 under SB 107 and again in 2011 under SBX1-2, California’s Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. The 33 percent standard is consistent with the RPS goal established in the Scoping Plan. As an interim measure, the RPS requires 25 percent of retail sales to be sourced from renewable energy by 2016.

Senate Bill 375

SB 375 (codified in the Government Code and the Public Resources Code¹) took effect in 2008 and provides a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. SB 375 also requires metropolitan planning organizations (MPOs) to incorporate a Sustainable Communities Strategy (SCS) in their Regional Transportation Plans that will achieve GHG emissions reduction targets by reducing vehicle miles traveled from light-duty

¹ Senate Bill 375 is codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01 as well as Public Resources Code Sections 21061.3 and 21159.28 and Chapter 4.2.

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vehicles through the development of more compact, complete, and efficient communities. If the SCS cannot meet greenhouse gas reduction targets, the MPO must prepare an Alternative Planning Strategy identifying the additional regional land uses and transportation investments needed to attain the targets. The MPO with jurisdiction in the project area is the Southern California Association of Governments (SCAG).

On September 23, 2010, CARB adopted regional targets for the reduction of GHGs applying to the years 2020 and 2035 (CARB 2011a). For the area under SCAG jurisdiction, CARB established placeholder regional targets for reduction of greenhouse gas emissions of 8 percent for 2020 and 13 percent for 2035 (CARB 2010). CARB's executive officer approved the final targets on February 15, 2011 (CARB 2011b).

SCAG's Sustainable Communities Strategy is included in the SCAG 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2012). The document was adopted by SCAG in April 2012. The RTP/SCS goals and policies that reduce vehicle miles traveled (VMT) focus on transportation and land use planning which include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. The RTP/SCS adopts land use patterns at the jurisdictional level. The RTP/SCS also includes an appendix listing examples of measures that could reduce impacts from planning, development, and transportation. It notes, however, that the example measures are "not intended to serve as any kind of checklist to be used on a project-specific basis." Since every project and project setting is different, project-specific analysis is needed to identify applicable and feasible mitigation. The GHG example measures include the following:

GHG1: SCAG member cities and the county governments may adopt and implement Climate Actions Plans (CAPS, also known as Plans for the Reduction of Greenhouse Gas Emissions as described in CEQA Guidelines Section 15183.5 Tiering and Streamlining the Analysis of Greenhouse Gas Emissions).

GHG2: Project sponsors may require Best Available Control Technology (BACT) during construction and operation of projects, including:

- a) Solicit bids that include use of energy- and fuel-efficient fleets;
- b) Solicit preference construction bids that use BACT, particularly those seeking to deploy zero- and/or near zero emission technologies;
- c) Employ use of alternative-fueled vehicles;
- d) Use lighting systems that are energy efficient, such as LED technology;
- e) Use CEQA Guidelines Appendix F, Energy Conservation, to create an energy conservation plan;
- f) Streamline permitting process to infill, redevelopment, and energy-efficient projects;
- g) Use an adopted emissions calculator to estimate construction-related emissions;
- h) Use the minimum feasible amount of GHG-emitting construction materials that is feasible;

- i) Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
- j) Use lighter-colored pavement where feasible;
- k) Recycle construction debris to the maximum extent feasible; and
- l) Plant shade trees in or near construction projects where feasible.

GHG3: Local jurisdictions can and may establish a coordinated, creative public outreach activities, including publicizing the importance of reducing GHG emissions and steps community members may take to reduce their individual impacts.

GHG4: Pedestrian and Bicycle Promotion: Local jurisdictions may work with local community groups and business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation.

GHG5: Waste Reduction: Local jurisdictions can and should organize workshops on waste reduction activities for the home or business, such as backyard composting, or office paper recycling, and may schedule recycling drop-off events and neighborhood chipping/mulching days.

GHG6: Water Conservation: Local jurisdictions may organize support and/or sponsor workshops on water conservation activities, such as selecting and planting drought-tolerant, native plants in landscaping, and installing advanced irrigation systems.

GHG7: Energy Efficiency: Local jurisdictions may organize workshops on steps to increase energy efficiency in the home or business, such as weatherizing the home or building envelope, installing smart lighting systems, and how to conduct a self-audit for energy use and efficiency.

GHG8: Schools Programs: Local jurisdictions may develop and implement a program to present information to schoolchildren about climate change and ways to reduce GHG emissions, and may support school-based programs for GHG reduction, such as school-based trip reduction and the importance of recycling.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO meeting certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or Alternative Planning Strategy). However, new CEQA provisions would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or Alternative Planning Strategy, categorized as “transit priority” projects.

California Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were originally adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (Title 24, Part 6, of the California Code of Regulations). In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

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In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Title 24, Part 11) was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations).

Part 11 establishes voluntary standards on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. Current mandatory standards include:

- Twenty (20) percent mandatory reduction in indoor water use, with voluntary goal standards for 30, 35, and 40 percent reductions.
- Separate water meters for nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects.
- Diversion of 50 percent of construction waste from landfills, increasing voluntarily to 65 and 75 percent for new homes and 80 percent for commercial projects.
- Wastewater reduction measures including the requirement that each building reduce the generation of wastewater through the installation of water conservation fixtures or by using non-potable water systems.
- Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.
- Low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard.

The California Energy Commission recently adopted changes to the 2013 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1 (collectively referred to here as the standards). The amended standards took effect in the summer of 2014. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The standards offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Energy-efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

California Green Building Standards

In January 2010, the California Building Standards Commission adopted the statewide mandatory Green Building Standards Code (CALGreen [California Code of Regulations, Title 24, Part 11]). CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure. CALGreen requires energy conservation measures for new buildings and structures. The City of Wildomar adopted the CALGreen standards by ordinance (Ordinance 11-01).

LOCAL

South Coast Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, South Coast Air Management District (SCAQMD) staff is convening an

ongoing GHG CEQA Significance Threshold Working Group. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that provide input to SCAQMD staff on developing the significance thresholds. On October 8, 2008, the SCAQMD released the Draft AQMD Staff CEQA GHG Significance Thresholds. These thresholds have not been finalized and continue to be developed through the working group.

On September 28, 2010, SCAQMD Working Group Meeting #15 considered use of the 6.6 metric tons per service population metric as a threshold for plan-level analysis, though it has not adopted any thresholds for the land use sector to date. Thus, it is only a concept that has been discussed at the staff level and is not a SCAQMD recommendation at this time. Furthermore, SCAQMD's staff concept (as indicated in the September 28, 2010, working group presentation) is that the service population metric is only employed for significance determination after considering whether a CEQA plan or project is consistent with a climate action plan.

As of SCAQMD staff's meeting on September 28, 2010, the draft tiered threshold provides the following guidance:

Tier 1: Is the project exempt from CEQA? If yes, the project is not significant and no further analysis is required.

Tier 2: Is the project consistent with an approved regional climate action plan? If yes, the project is not significant and no further analysis is required.

Tier 3: Would the project result in emissions below the screening level criteria? If yes, the project is not significant and no further analysis is required.

- Propose 10,000 metric tons (MT) per year CO₂e per year industrial project threshold for use by all lead agencies.
- Propose 3,000 MT per year CO₂e for all residential and commercial land use types.
- Threshold value by land use type acceptable if used consistently.
- Residential: 3,500 MT per year CO₂e
- Commercial: 1,400 MT per year CO₂e
- Mixed use: 3,000 MT per year CO₂e
- Both options based on review of the Office of Planning Research (OPR) database (711 CEQA projects) using the 90 percent capture rate approach

Tier 4: Would the project comply with certain performance-based standards? If yes, the project is not significant and no further analysis is required.

- Option #1: Percent Emission Reduction Target
- No recommendation at this time.
- Option #2: Early Implementation of Applicable AB 32 Scoping Plan Measures
- Incorporated in Option #3.
- Option #3: SCAQMD Efficiency Target
- 2020 Targets – 4.8 MT per year CO₂e per service population for project-level threshold (land use employment only)
- 2035 Targets – 3.0 MT per year CO₂e per service population for project-level threshold

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The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board. The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions; however, these rules are currently applicable only to boilers and process heaters, forestry, and manure management projects.

Western Riverside Council of Governments Climate Action Plan

Many strategies for monitoring and addressing climate change have emerged at the international, national, and state levels. To support AB 32, California has been developing policy and passing legislation that seeks to control emissions of gases that contribute to climate change. These have included regulatory approaches such as mandatory reporting for significant sources of GHG emissions and caps on emission levels, as well as market-based mechanisms, such as cap and trade. Voluntary local actions are also increasing, such as conducting emissions inventories, implementing practices to reduce emissions, and purchasing offsets and renewable energy certificates. Wildomar is a member agency of the Western Riverside Council of Governments (WRCOG), which coordinated a subregional CAP process on behalf of its member agencies.

The WRCOG's (2014) Subregional CAP establishes a community-wide emissions reduction target of 15 percent below 2010, following guidance from CARB and the Governor's Office of Planning and Research. CARB and the California Attorney General have determined this approach to be consistent with the statewide AB 32 goal of reducing emissions to 1990 levels. The Subregional CAP does not establish a reduction target for 2035 or future years; however, the CAP identifies a reduction goal of 49 percent below baseline emissions levels to set the WRCOG subregion on a trajectory to meet targets identified in SB 375 and Executive Order S-3-05, recognizing that information, methodologies, and data availability may change between now and 2035. Progress toward achieving the 2020 emissions reduction target will be monitored over time through preparation of an annual memorandum documenting program implementation and performance. Following each annual report, WRCOG and the participating jurisdictions may adjust or otherwise modify the strategies to achieve the reductions needed to reach the target. Such adjustments could include more prescriptive measures, reallocation of funding to more successful programs, and modifications to the 2020 BAU emissions projection and reduction target based on revised population, housing, and employment growth estimates. Additionally, there will be a comprehensive inventory update prior to 2020 to track overall progress toward meeting the GHG reduction target.

To meet emissions reduction targets, the CAP considers existing programs and policies in the subregion that achieve GHG emissions reductions in addition to new GHG reduction measures. Several measures apply to participating jurisdictions uniformly, because they respond to adoption of a state law (e.g., the Low Carbon Fuel Standard) or result from programs administered at the discretion of a utility serving multiple jurisdictions (e.g., utility rebates). For other, more discretionary measures, participating jurisdictions, including the City of Wildomar, have voluntarily committed to a participation level that could be implemented in their communities.

3.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines, impacts related to climate change are considered significant if implementation of the proposed project would:

- 1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

In order to assess the significance of a proposed project's environmental impacts, it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. While project-related GHG emissions can be estimated, the direct impacts of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time which would indicate that the emissions from a project the size of the proposed project would directly affect global climate change. The SCAQMD and other air quality agencies concur that greenhouse gases and climate change should be evaluated as a potentially significant cumulative rather than project-specific impact.

AB 32 states, in part, that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions and GHGs are emitted by innumerable sources worldwide, global climate change is considered to be a significant cumulative impact. GHG emissions from the project would contribute to cumulative GHG emissions in California and to the potential adverse environmental impacts of climate change.

Based on the information set forth above, for the purposes of this analysis, implementation of the proposed project may have a significant adverse impact on GHG emissions if it would exceed the SCAQMD's interim threshold of 3,000 metric tons of CO₂e per year and/or is shown to be inconsistent with the WRCOG Subregional CAP.

METHODOLOGY

The evaluation of project-related GHG impacts is partially based on the analysis conducted by Urban Crossroads in 2015 (see **Appendix 3.4**). The proposed project's resultant GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), version 2013.2.2, computer program. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals.

IMPACTS AND MITIGATION MEASURES

Generate Greenhouse Gas Emissions That May Have a Significant Impact on the Environment (Standard of Significance 1)

Impact 3.4.1 Implementation of the proposed project will result in greenhouse gas emissions that would not contribute to significant impacts on the environment. This is considered a **less than cumulatively considerable** impact.

Construction GHG Emissions

The proposed project would result in direct emissions of GHGs from construction. The approximate quantity of daily GHG emissions generated by construction equipment utilized to build the proposed project is depicted in **Table 3.4-4**.

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**TABLE 3.4-4
CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS – METRIC TONS PER YEAR**

Construction	CO ₂ e
Total Construction	2,022

Source: *Urban Crossroads 2015a*

As shown, project construction would result in the generation of approximately 2,022 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. In accordance with the SCAQMD guidance, projected GHGs from construction have been quantified and amortized over the life of the project (30 years). The amortized construction emissions are added to the annual average operational emissions.

Operational GHG Emissions

As shown in **Table 3.4-5**, the unmitigated long-term operations of the proposed project would produce 2,318 metric tons of CO₂e annually.

**TABLE 3.4-5
UNMITIGATED PROJECT GREENHOUSE GAS EMISSIONS – PROJECT OPERATION (METRIC TONS PER YEAR)**

Emissions Source	CO ₂ e
Construction Amortized over 30 Years	68
Area Source	65
Energy	471
Mobile	1,544
Waste	73
Water	97
Total	2,318
SCAQMD Significance Threshold (MTCO ₂ e Annually)	3,000
Significant?	No

Source: *Urban Crossroads 2015a*

As shown in **Table 3.4-5**, the proposed project would not surpass the project threshold of 3,000 metric tons of CO₂e annually. As a result, this impact is considered **less than cumulatively considerable**.

Mitigation Measures

None required.

Conflict with Applicable Plan Adopted to Reduce GHG Emissions (Standard of Significance 2)

Impact 3.4.2 Implementation of the proposed project could conflict with an applicable plan adopted for the purpose of reducing the emissions of greenhouse gases. This impact is **less than cumulatively considerable**.

Consistency with WRCOG Subregional CAP

Wildomar is a member agency of WRCOG, which coordinated a subregional CAP process on behalf of its member agencies. The WRCOG's (2014) Subregional CAP establishes a community-wide emissions reduction target of 15 percent below 2010, following guidance from CARB and the Governor's Office of Planning and Research. CARB and the California Attorney General have determined this approach to be consistent with the statewide AB 32 goal of reducing emissions to 1990 levels by the year 2020. Progress toward achieving the 2020 emissions reduction target will be monitored over time through preparation of an annual memorandum documenting program implementation and performance. Following each annual report, WRCOG and the participating jurisdictions may adjust or otherwise modify the strategies to achieve the reductions needed to reach the target. Such adjustments could include more prescriptive measures, reallocation of funding to more successful programs, and modifications to the 2020 BAU emissions projection and reduction target based on revised population, housing, and employment growth estimates. Additionally, there will be a comprehensive inventory update prior to 2020 to track overall progress toward meeting the GHG reduction target.

To meet emissions reduction targets, the CAP considers existing programs and policies in the subregion that achieve GHG emissions reductions in addition to new GHG reduction measures. Several measures apply to participating jurisdictions in western Riverside County uniformly, because they respond to adoption of a state law (e.g., the Low Carbon Fuel Standard) or result from programs administered at the discretion of a utility serving multiple jurisdictions (e.g., utility rebates). For other more discretionary measures, participating jurisdictions, including the City of Wildomar, have voluntarily committed to a participation level that could be implemented in their communities. For example, the City has agreed to increase the amount of bike lanes in the city by 10 percent compared with existing conditions (CAP Measure T-1), increase bicycle parking (CAP Measure T-2), increase fixed-route bus service by 5 percent compared with existing conditions (CAP Measure T-5), synchronize traffic signals (CAP Measure T-7), increase the jobs/housing ratio in the city by 5 percent (CAP Measure T-9), and provide residential green bins for the collection and transport of organic waste for compost (CAP Measure SW-1).

No aspect of the proposed project would conflict with or inhibit the City of Wildomar's commitment to its GHG-reducing measures under the WRCOG Subregional CAP.

Consistency with AB 32

As previously described, AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. CARB identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the reduction measures of the CARB Scoping Plan are also consistent with AB 32.

The proposed project would generate GHG emissions from a variety of sources such as vehicles. GHGs could also be indirectly generated by incremental electricity consumption and waste generation from the proposed project.

Table 3.4-6 presents the 39 Recommended Actions (qualitative measures) identified by CARB in its Climate Change Proposed Scoping Plan. Of the 39 Recommended Actions identified, those that would be considered to be applicable to the proposed project would primarily be those actions related to transportation, electricity and natural gas use, green building design, and industrial uses. Consistency of the proposed project with these recommended actions is evaluated by each source-type measure below. **Table 3.4-6** identifies which CARB-Recommended Actions apply to the project and of those, whether the project is consistent therewith.

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**TABLE 3.4-6
RECOMMENDED ACTIONS FOR CLIMATE CHANGE PROPOSED SCOPING PLAN**

ID#	Sector	Strategy Name	Applicable to Project?	Will Project Conflict with Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	Yes	No
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	Yes	No
T-3	Transportation	Regional Transportation-Related GHG Targets	Yes	No
T-4	Transportation	Vehicle Efficiency Measures	Yes	No
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	No	No
T-6	Transportation	Goods-Movement Efficiency Measures	No	No
T-7	Transportation	Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	No	No
T-8	Transportation	Medium- and Heavy-Duty Vehicle Hybridization	No	No
T-9	Transportation	High-Speed Rail	No	No
E-1	Electricity and Natural Gas	Increased Utility Energy Efficiency Programs, More Stringent Building and Appliance Standards	Yes	No
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000 GWh	No	No
E-3	Electricity and Natural Gas	Renewables Portfolio Standard	No	No
E-4	Electricity and Natural Gas	Million Solar Roofs	No	No
CR-1	Electricity and Natural Gas	Energy Efficiency	No	No
CR-2	Electricity and Natural Gas	Solar Water Heating	No	No
GB-1	Green Buildings	Green Buildings	Yes	No
W-1	Water	Water Use Efficiency	Yes	No
W-2	Water	Water Recycling	No	No
W-3	Water	Water System Energy Efficiency	Yes	No
W-4	Water	Reuse Urban Runoff	No	No
W-5	Water	Increase Renewable Energy Production	No	No
W-6	Water	Public Goods Charge (Water)	No	No
I-1	Industry	Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	No	No
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	No	No
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	No	No
I-4	Industry	Refinery Flare Recovery Process Improvements	No	No
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	No	No

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ID#	Sector	Strategy Name	Applicable to Project?	Will Project Conflict with Implementation?
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	No	No
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	No	No
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	No	No
F-1	Forestry	Sustainable Forest Target	No	No
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	No	No
H-2	High Global Warming Potential Gases	SF ₆ Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	No	No
H-3	High Global Warming Potential Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	No	No
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action; adopted June 2008)	No	No
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	No	No
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	No	No
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	No	No
A-1	Agriculture	Methane Capture at Large Dairies	No	No

A detailed discussion of the applicability of each measure and whether the project conflicts with its implementation follows.

Transportation

CARB's Scoping Plan identifies nine transportation-related Recommended Actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed project. Vehicles traveling to the proposed project would be subject to the Pavley standards, as applicable, and would be consistent with and not conflict with this Recommended Action.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB has developed a Low Carbon Fuel Standard (LCFS), which

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is estimated to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The LCFS incorporates compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce GHG emissions. While implementation of such a standard is not within the purview of a development project, a land use such as the proposed project would result in the consumption of fuels by the residents it serves. Projects such as the proposed project would be required to participate with the use of low carbon fuels as they are made available through the purchase of fuels. Therefore, the proposed project would not conflict with measures concerning the use of low carbon fuels.

Action T-3 addresses regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations, passenger vehicle GHG emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered, and methodologies for setting GHG emissions reduction targets. SB 375 also provides incentives—relief from certain CEQA requirements for development projects that are consistent with regional plans that achieve the targets. For the SCAG region in which the project is located, the targets are set at 8 percent below 2005 per capita emissions levels by 2020 and 13 percent below 2005 per capita emissions levels by 2035.

On April 4, 2012, the SCAG Regional Council adopted the 2012--2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The RTP/SCS is meant to provide individual jurisdictions with growth strategies that, when taken together, achieve the regional GHG emissions reduction targets. Specifically, the SCS distributes growth forecast data to transportation analysis zones for the purpose of modeling performance (Urban Crossroads 2015b). The growth and land use assumptions for the SCS are to be adopted at the jurisdiction level (Urban Crossroads 2015b). For Wildomar, the SCS's Growth Forecast assumes 10,000 households and 3,400 jobs in 2008, and anticipates 13,000 households and 5,900 jobs in 2020, and 16,800 households and 9,300 jobs in 2035 (Urban Crossroads 2015b). Accordingly, the project fits within this growth allocation (Urban Crossroads 2015b). Furthermore, the proposed project is not regionally significant per CEQA Guidelines Section 15206 and as such would not conflict with the SCAG RTP/SCS and associated SB 375 targets, since those targets were established and are applicable on a regional level.

Action T-4 is concerned with vehicle efficiency measures. The California Department of Resources Recycling and Recovery (CalRecycle) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, the California Energy Commission (CEC), in consultation with CalRecycle, is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. CARB is actively engaged in the regulatory development process for the tire inflation component of this measure. While implementation of such a standard is not within the purview of a development project, a land use such as that proposed would generate vehicle miles traveled (VMT) and be subject to any applicable adopted standards and would therefore not conflict with the Recommended Action.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed project. Therefore, the proposed project would not conflict with this measure.

Action T-6 also primarily addresses port operations and is not applicable to the proposed project. Therefore, the proposed project would not conflict with this measure.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology. Implementation of such a standard is not within the purview of the proposed project. Therefore, the proposed project would not conflict with this measure.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans. Implementation of such a standard is not within the purview of the proposed project. Therefore, the proposed project would not conflict with this measure.

Action T-9 concerns implementation of a high-speed rail (HSR) system. A high-speed rail system is part of the statewide strategy to provide more mobility choice and reduce GHG emissions. This measure supports implementation of plans to construct and operate an HSR system between Northern and Southern California. As planned, the HSR is a 700-mile-long rail system capable of speeds in excess of 200 miles per hour on dedicated, fully grade-separated tracks with state-of-the-art safety, signaling, and automated rail control systems. The system would serve the major metropolitan centers of California in 2030 and is projected to displace between 86 and 117 million riders from other travel modes in 2030. The proposed project would not conflict with implementation of a high-speed rail system.

Electricity and Natural Gas

Action E-1, together with Action GB-1 (Green Buildings), aims to reduce electricity demand by increased efficiency of utility energy programs and adoption of more stringent building and appliance standards. Elements of this action include encouraging construction of zero net energy buildings and implementation of passive solar design. In addition to employing on-site electricity generation, a zero net energy building must either replace natural gas with renewable energy for space and water heating or compensate for natural gas use by generating surplus electricity for sale on the state's electricity grid. The proposed project is required to comply with the most recent Title 24 Energy Efficiency Standards and applicable green building standards. Therefore, the proposed project would not conflict with this measure.

Action E-2 encourages an increase in the use of combined heat and power use, or cogeneration, facilities. California has supported combined heat and power for many years, but market and other barriers continue to keep combined heat and power from reaching its full market potential. Increasing the deployment of efficient combined heat and power will require a multipronged approach that includes addressing significant barriers and instituting incentives or mandates where appropriate. Implementation of such a standard is not within the purview of the proposed project; therefore, the proposed project would not conflict with this measure.

Action E-3 concerns the Renewables Portfolio Standard for utilities and does not apply directly to development projects. Therefore, the proposed project would not conflict with this Recommended Action.

3.4 CLIMATE CHANGE AND GREENHOUSE GASES

Action E-4 strives to promote solar-generated electricity. The Million Solar Roofs initiative is not within the purview of any one individual project. Therefore, the proposed project would not conflict with this Recommended Action.

Water Use

Implementation of two of the Recommended Actions related to water use listed in **Table 3.4-6** are within the purview of the proposed project. The two that apply to the proposed project are W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). The project will be required to comply with the City's landscape ordinance that implements actions W-1 and W-3, which ensures that the project will not obstruct the implementation of the Recommended Actions.

Industrial Use

The proposed project is not an industrial use; therefore, these measures do not apply to the project.

Conclusion

As stated, no aspect of the proposed project would conflict with or inhibit the City of Wildomar's commitment to its GHG-reducing measures under the WRCOG Subregional CAP. In addition, the proposed project is consistent with or otherwise not in conflict with the CARB Scoping Plan Recommended Actions. As such, a qualitative assessment of the project impacts based on consistency with the WRCOG Subregional CAP and CARB Scoping Plan supports the conclusion that the project's GHG emissions are **less than cumulatively considerable**.

Mitigation Measures

None required.

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3.4 CLIMATE CHANGE AND GREENHOUSE GASES

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3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section considers and evaluates the potential impacts of the proposed project on historical, cultural, and paleontological resources. Cultural resources are defined as prehistoric and historic sites, structures, and districts or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, or religious reasons. Paleontological resources include fossil remains, as well as fossil localities and formations that have produced fossil material. This section is based on a technical report provided by BCR Consulting LLC for the project site in 2015 and a comment letter from the Pechanga Tribe identifying the project as a sensitive area. The potential to impact cultural resources during grading activity is high (**Appendix 3.5**).

CONCEPTS AND TERMINOLOGY FOR EVALUATION OF CULTURAL RESOURCES

For analysis purposes, cultural resources may be categorized into four groups: archaeological resources (prehistoric and historical); historic properties, buildings, and districts; areas of importance to Native Americans; and paleontological resources (fossilized remains of plants and animals). Cultural resource impacts include those to existing historic resources (i.e., historic districts, landmarks, etc.) and to archaeological and paleontological resources.

The following definitions are common terms used to discuss the regulatory requirements and treatment of cultural resources:

Cultural resources is the term used to describe several different types of properties: prehistoric and historic archaeological sites; architectural properties such as buildings, bridges, and infrastructure; and resources of importance to Native Americans.

Historic properties is a term defined by the National Historic Preservation Act (NHPA) as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP), including artifacts, records, and material remains related to such a property.

Historical resource as described in the California Environmental Quality Act (CEQA) includes buildings, sites, structures, objects, or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance and is eligible for listing or is listed in the California Register of Historical Resources (CRHR) or a local register of historical resources. The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Paleontological resource is defined as including fossilized remains of vertebrate and invertebrate organisms, fossil tracks and trackways, and plant fossils. A unique paleontological site would include a known area of fossil-bearing rock strata.

3.5.1 EXISTING SETTING

The following summary of the history and ethnographic setting of the project area is taken from the cultural resources assessment prepared for the proposed project. Text citations to this source document are not included in individual paragraphs. The reader is referred to **Appendix 3.5**.

PREHISTORY

The difficulties in establishing cultural chronologies for Riverside County are a function of its enormous size and the small number of archaeological excavations conducted there. Throughout prehistory, many groups have occupied the area and their territories often overlap

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spatially and chronologically, resulting in mixed artifact deposits. Due to dry climate and capricious geological processes, these artifacts rarely become integrated in situ. Without a setting hospitable to the preservation of cultural middens, local chronologies have relied on temporally diagnostic artifacts, such as projectile points, or on the presence/absence of other temporal indicators, such as groundstone. Such methods are instructive but can be limited by prehistoric occupants' concurrent use of different artifact styles or by artifact reuse or re-sharpening, as well as researchers' mistaken diagnosis and other factors.

On the basis of currently available archaeological research, occupation of Southern California by human populations is believed to have begun at least 10,000 years ago. The earliest established tradition in Southern California is accepted to be the San Dieguito Tradition. The San Dieguito people were nomadic large-game hunters whose tool assemblage included large domed scrapers, leaf-sharpened knives and projectile points, stemmed projectile points, chipped stone crescentics, and hammerstones.

Throughout southwestern California, the La Jolla Complex followed the San Dieguito Tradition. The La Jolla Complex is recognized primarily by the presence of millingstone assemblages in shell middens. Characteristic cultural resources of the La Jolla Complex include basined millingstones, unshaped manos, flaked stone tools, shell middens, and a few Pinto-like projectile points. Flexed inhumations under stone cairns, with heads pointing north, are also present. The La Jolla Complex existed from 5500 to 1000 BC.

The Pauma Tradition may be an inland variant of the La Jolla Complex, exhibiting a shift to a hunting and gathering economy, rather than one based on shellfish gathering. Implications of this shift are an increase in the number and variety of stone tools and a decrease in the amount of shell.

The late period is represented by the San Luis Rey Complex, divided into two periods: San Luis Rey I (AD 1400–1750) and San Luis Rey II (AD 1750–1850). The San Luis Rey I component includes cremations, bedrock mortars, millingstones, small triangular projectile points with concave bases, bone awls, stone pendants, *Olivella* shell beads, and quartz crystals. The San Luis Rey II assemblage is the same as San Luis Rey I, but with the addition of pottery vessels, cremation urns, tubular pipes, stone knives, steatite arrow straighteners, red and black pictographs, and such non-aboriginal items as metal knives and glass beads. Inferred San Luis Rey subsistence activities include hunting and gathering with an emphasis on acorn harvesting.

ETHNOGRAPHY

The project area is situated in the traditional boundaries of the Luiseño Indians. Typically, the native culture groups in Southern California are named after nearby Spanish missions, and such is the case for this Takic-speaking population. For instance, the term "Luiseño" is applied to the natives inhabiting the region within the "ecclesiastical jurisdiction of Mission San Luis Rey... [and who shared] an ancestral relationship which is evident in their cosmogony, and oral tradition, common language, and reciprocal relationship in ceremonies." The first written accounts of the Luiseño are attributed to the mission fathers. Prior to Spanish occupation of California, the territory of the Luiseño extended along the coast from Agua Hedionda Creek to the south, Aliso Creek to the northwest, and the Elsinore Valley and Palomar Mountain to the east. These territorial boundaries were somewhat fluid and changed through time. They encompassed an extremely diverse environment that included coastal beaches, lagoons and marshes, inland river valleys and foothills, and mountain groves of oaks and evergreens.

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Like other Native American groups in Southern California, the Luiseño caught and collected seasonally available food resources and led a semi-sedentary lifestyle. Luiseño villages generally were located in valley bottoms, along streams, or along coastal strands near mountain ranges sheltered in canyons, near a water source, and in a location that was easily defended. Individuals from these villages took advantage of the varied resources available. They also established seasonal camps along the coast and near bays and estuaries to gather shellfish and hunt waterfowl. The Luiseño lived in small communities, which were the focus of family life. Luiseño villages were politically independent, administered by a hereditary chief, and occupied by patrilineally linked extended families. The Luiseño believed in private property, which covered items and land owned by the village, as well as items owned by individuals. Trespass against any property was punished. Luiseño subsistence was based primarily on seeds like acorns, grass seed, Manzanita, sunflower, sage, chia, and pine nuts. Seeds were dried and ground to be cooked into a mush. Game animals such as deer, rabbit, jackrabbit, wood rat, mice, antelope, and many types of birds supplemented their vegetal intake. The Luiseño utilized fire for crop management and communal rabbit drives.

HISTORIC CONTEXT

In the general project area, the Colonial Spanish-Mission Period (AD 1769–1830) first represents historical occupation. Although earlier European explorers had traveled throughout Southern California, it was not until the 1769 “Sacred Expedition” of Captain Gaspar de Portola and Franciscan Father Junipero Serra that there was actual contact with aboriginal inhabitants of the region (“Indians”). The intent of the expedition, which began in San Blas, Baja California, was to establish missions and presidios along the California coast, thereby serving the dual purpose of converting Indians to Christianity and expanding Spain’s military presence in the New World.

In addition, historian Phillip Rush credits Captain Juan Pablo Grijalva and his party with the first European discovery of the region in 1795. The first Europeans of record to enter the region were Father Juan Norberto de Santiago and Captain Pedro Lisalde. In 1797 their expedition party, comprising seven soldiers and five Indians (probably Juaneños from the Mission San Juan Capistrano), stopped briefly near Temecula on their journey to find another mission site. Upon leaving the valley, Father Santiago remarked in his journal that the expedition had encountered an Indian village called Temecula.

In 1798 on the site Santiago had selected, the Mission San Luis Rey de Francia was founded, and all aboriginals living within the mission’s realm of influence became known as the Luiseño. Within a 20-year period, under the guidance of Father Antonio Peyro, the mission prospered to a degree that it was often referred to as the “King of the Missions.” During this period, the Mission San Luis Rey de Francia claimed the entire region that is now western Riverside County and northern San Diego County as a cattle ranch, although records of the Mission San Juan Capistrano show this region as part of their holdings.

By 1818, the greater Temecula Valley had become the Mission San Luis Rey’s principle producer of grain and was considered one of the mission’s most important holdings. It was at approximately this time that a granary, chapel, and majordomo’s home were built in Temecula. These were the first structures built by Europeans within the boundaries of Riverside County. The buildings were constructed at the original Indian village of Temecula on a high bluff at the southern side of Temecula Creek where it joins Murrieta Creek to form the Santa Margarita River. This entire area continued to be an abundant producer of grain, as well as horses and cattle, for the thriving Mission San Luis Rey until the region became part of Mexico on April 11, 1822. Following this event, the Spanish missions and mission ranches began a slow decline.

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During the Mexican Ranch-Pastoral/Landless Indian period (AD 1830–1860), the first of the Mexican ranchos were established following the enactment of the Secularization Act of 1833 by the Mexican government. Mexican governors were empowered to grant vacant land to “contractors (*empresarios*), families, or private citizens, whether Mexicans or foreigners, who may ask for them for the purpose of cultivating or inhabiting them.” Mexican governors granted approximately 500 ranchos during this period.

Throughout the 1840s and 1850s, thousands of settlers and prospectors traveled through the project area on the Emigrant Trail en route to various destinations in the West. The southern portion of the trail ran from the Colorado River to Warner’s Ranch and then westward to Aguanga, where it split into two roads. The main road continued westward past Aguanga and into the valley north of the Santa Ana Mountains. This road was alternately called the Colorado Road, Old Temescal Road, or Fort Yuma Road, and what is now State Route 79 generally follows its alignment. The second road, known as the San Bernardino Road, split off northward from Aguanga and ran along the base of the San Jacinto Mountains.

In the final period of historic occupation, the American Developmental/Indian Reservation Era (AD 1860–current), the first major changes in the project area took place as a result of the land issues addressed in the previous decade. Settlement of the region began in earnest as a direct result of the Homestead Act of 1862, although many of the settlers actually obtained their land through other avenues. This region was considered especially desirable by settlers due to the abundance of flat land with good soil, relatively dependable sources of water, and the proximity to major transportation corridors.

On March 17, 1882, the California Southern Railroad (San Bernardino and Temecula Line) was opened, extending from National City near the Mexican border in San Diego County, northerly through Temecula and Murrieta, across the Perris valley, down Box Springs Grade, and on to the city of San Bernardino. As a result, the entire region anticipated a boom in industry and population. L. Menifee Wilson, a 20-year-old man from Kentucky, came to the area and located what appears to be the first gold quartz mine in this part of Southern California.

As news of his find spread, miners flocked to the region to try their luck. Hundreds of gold mining claims were subsequently filed in the region around Menifee’s mine, and this area became known as Menifee and the Menifee Valley. Gold quartz discoveries in the Wildomar, Winchester, Perris, Lakeview, and Murrieta areas further fueled the belief that the entire region was one of unsurpassed mineral wealth.

Wilson was one the major proponents of this belief and in addition to his original mine, he claimed several others in the general area. From the time of Wilson’s first gold discovery in the early 1880s, gold production through hard rock mining in western Riverside County increased considerably, reaching its peak in 1895. At that time the value of gold produced was reported in the *Mining and Scientific Press* (Vol. 85) as being \$285,106. Although the gold value was still relatively high in 1896 (\$262,800), from that point on production decreased substantially every year, until in 1917, the value of gold produced was reported as being zero.

On September 24, 1883, approximately 18 months after the opening of the California Southern Railroad, Franklin H. Herald, Donald M. Graham, and William Collier purchased the 12,832-acre La Laguna Rancho for \$12,000. It was renamed Elsinore and subdivided into town lots and small acreages for sale. However, in 1885 the partnership was dissolved and the unsold land in the rancho was divided. Collier and Graham took as their share the land that lay southeasterly of Corydon Street and platted a town site with the name “Wildon” on the land. In November of 1886, a second plat for the new town was recorded with the name “Wildomar.” This final name

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comprised letters of each partner's first name, plus letters from the first name of Margaret Collier, who was Graham's sister and Collier's wife.

On April 16, 1886, Wildomar's first post office was established, and when Riverside County incorporated in 1893, Wildomar was designated as one of the original 40 election precincts and the Wildomar school district as one of the original 52 accepted school districts. As the aforementioned gold boom began to subside in the late 1890s, the local economy's emphasis on mining began to give way to a far greater emphasis on the agricultural potential of the region. This shift in industry led to a less dramatic population growth for the region and allowed for the rural setting of western Riverside County to persist until the late twentieth century.

KNOWN CULTURAL RESOURCES IN THE PROJECT AREA

The records search indicated no previously recorded cultural resources within the project area. However, the records search also indicated that the project area had not been included in any previous cultural resources study and that no sites of either prehistoric or historic origin had been recorded within its boundaries.

KNOWN PALEONTOLOGICAL RESOURCES IN THE PROJECT AREA

Paleontology is defined as a science dealing with the life of past geological periods as known from fossil remains. Paleontological resources include fossil remains, as well as fossil localities and formations that have produced fossil material. Such locations and specimens are important nonrenewable resources. CEQA offers protection for these sensitive resources and requires that they be addressed during the environmental impact report process.

3.5.2 REGULATORY FRAMEWORK

FEDERAL

National Historic Preservation Act

The National Historic Preservation Act (NHPA) requires that the federal government list significant historic resources on the National Register of Historic Places, which is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

Structures, sites, buildings, districts, and objects over 50 years of age can be listed in the NRHP as significant historic resources. However, properties under 50 years of age that are of exceptional importance or are contributors to a historic district can also be included in the NRHP.¹ The criteria for listing in the NRHP include resources that:

- a) Are associated with events that have made a significant contribution to the broad patterns of history;
- b) Are associated with the lives of persons significant in our past;

¹ A [historic] district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development (National Park Service 2013).

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- c) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) Have yielded or may likely yield information important in prehistory or history.

STATE

California Register of Historical Resources

The State Historical Resources Commission has designed the California Register of Historic Resources for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The CRHR is the authoritative guide to the state's significant historical and archaeological resources. This program encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding, and affords certain protections under CEQA.

California Environmental Quality Act

Under CEQA, public agencies must consider the effects of their actions on both historical resources and unique archaeological resources. Pursuant to Public Resources Code (PRC) Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical resource is a term with a defined statutory meaning (PRC Section 21084.1; determining significant impacts to historical and archaeological resources is described in CEQA Guidelines Section 15064.5[a], [b]). Under CEQA Guidelines Section 15064.5(a), historical resources include the following:

- 1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC Section 5024.1).
- 2) A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources (PRC Section 5024.1), including the following:
 - a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

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- b) Is associated with the lives of persons important in our past;
 - c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - d) Has yielded, or may be likely to yield, information important in prehistory or history.
- 4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Historic resources are usually 45 years old or older and must meet at least one of the criteria for listing in the CRHR, described above (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and California Code of Regulations (CCR), Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

For historic structures, CEQA Guidelines Section 15064.5(b)(3) indicates that a project which follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) is considered as mitigating impacts to a less than significant level.

As noted above, CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. PRC Section 21083.2(g) states:

"Unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.*
- *Has a special and particular quality such as being the oldest of its type or the best available example of its type.*
- *Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

Treatment options under PRC Section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation or study in place without excavation and curation (if the study

3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

finds that the artifacts would not meet one or more of the criteria for defining a unique archaeological resource).

Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered, as follows:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

CEQA Guidelines Section 15064.5(e) requires that excavation activities stop whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5(f), these provisions should include "an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."

Paleontological resources are classified as non-renewable scientific resources. PRC Section 5097.5 et seq. makes it a misdemeanor for anyone to knowingly disturb any archaeological, paleontological, or historical features situated on public lands. No state or local agencies have specific jurisdiction over paleontological resources. No state or local agency requires a paleontological collecting permit to allow for the recovery of fossil remains discovered as a result of construction-related earth-moving on state or private land in a project site.

LOCAL

County of Riverside Design Standards and Guidelines

The City of Wildomar adopted the County of Riverside Design Standards and Guidelines to ensure new homes are constructed in neighborhoods that are interesting and varied in appearance and to encourage efficient use of land while creating high quality communities that will maintain their economic value and long-term desirability as places to live and work. The City of Wildomar Planning Department enforces the design guidelines by reviewing architectural drawings or renderings that are required to be submitted with an application for a building

permit. The design process focuses on three major areas: site design, building design, and landscape design. Guidelines ensure that development and new land uses are designed and operated in a manner compatible with the preservation of historic resources.

City of Wildomar Municipal Code – Chapter 15.88

Chapter 15.88, Historic Preservation Districts, of the City's Municipal Code provides a process by which the City Council may recommend sites, structures, or areas to be designated as a Historic Preservation District. The National Register of Historic Places and the California Register of Historical Resources do not include any historic structures or places in Wildomar; however, parts of downtown are considered locally historic.

3.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Following Public Resources Code Sections 21083.2 and 21084.1, and Section 15064.5 and Appendix G of the CEQA Guidelines, cultural resource impacts are considered to be significant if implementation of the project considered would result in any of the following:

- 1) Cause a substantial adverse change in the significance of a historical resource as defined in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5.
- 2) Cause a substantial adverse change in the significance of an archaeological resource as defined in Public Resources Code Sections 21083.2 and 21084.1, and CEQA Guidelines Section 15064.5.
- 3) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.
- 4) Disturb any human remains, including those interred outside of formal cemeteries.

State CEQA Guidelines Section 15064.5 defines "substantial adverse change" as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired.

CEQA Guidelines Section 15064.5(b)(2) defines "materially impaired" for purposes of the definition of substantial adverse change as follows:

The significance of an historical resource is materially impaired when a project:

(A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

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(C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

CEQA requires that alternative plans or mitigation measures must be considered if a project would result in an effect that may cause a substantial adverse change in the significance of a historical resource or would cause significant effects on a unique archaeological resource. Therefore, prior to assessing effects or developing mitigation measures, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify potential historical resources and unique archaeological resources.
- Evaluate the eligibility of historical resources.
- Evaluate the effects of the project on eligible historical resources.

METHODOLOGY

Prior to fieldwork, a records search was conducted at the Eastern Information Center, the local clearinghouse for cultural resource records. This archival research reviewed the status of all recorded historic and prehistoric cultural resources, as well as survey and excavation reports completed within 1 mile of the subject property site. Additional resources reviewed included the National Register of Historic Places, the California Register of Historical Resources, and documents and inventories published by the California Office of Historic Preservation. These include the lists of California Historical Landmarks and California Points of Historical Interest, the Listing of National Register Properties, and the Inventory of Historic Structures.

In addition, an archaeological field survey of the subject property was conducted on November 6 and 15, 2012. The survey was conducted by walking parallel transects spaced approximately 15 meters apart across 100 percent of the subject property. Soil exposures were carefully inspected for evidence of cultural resources.

The impact analysis provided below is based primarily on the cultural resources assessment conducted by BCR Consulting LLC and a comment letter from the Pechanga Tribe on the Notice of Preparation (NOP) (**Appendix 1.0-A**). The potential impacts of the proposed project on cultural resources were evaluated by considering both construction activities and operational impacts of the proposed project, and mitigation has been identified for each significant impact in this section. The City of Wildomar also works with the Pechanga Tribe and the Soboba Band to develop the wording for and approach to mitigation.

PROJECT IMPACTS AND MITIGATION MEASURES

Impacts to Historical Resources (Standard of Significance 1)

Impact 3.5.1 Implementation of the proposed project could result in a substantial adverse change in the significance of a known historical resource. This impact is considered **potentially significant**.

The cultural resources assessment (BCR Consulting 2015) performed for the proposed project (included in **Appendix 3.5**) discovered one isolated metavolcanic core reduction flake (temporary isolate number STR1202-I-1). This discovery is not considered eligible for the California

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Register of Historical Resources and as such is not considered a historical resource under CEQA. However, due to the presence of a prehistoric artifact, combined with the 18 prehistoric and historic resources previously recorded in the immediate vicinity, the subject property is considered sensitive for buried cultural resources. Therefore, it is possible that project-related ground-disturbing activities could uncover previously unknown historical resources within project boundaries. Unanticipated and accidental historical discoveries during project implementation have the potential to affect historical resources.

Mitigation Measures

MM 3.5.1 An archaeological monitor must be present during any earth-moving activities proposed within the subject property. The monitor shall work under the direct supervision of a cultural resources professional who meets the Secretary of the Interior's Professional Qualification Standards for archaeology. The monitor shall be empowered to temporarily halt or redirect construction work in the vicinity of any find until the project archaeologist can evaluate it. In the event of a new find, salvage excavation and reporting is required.

Timing/Implementation: Prior to ground-disturbing construction activities

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

Following implementation of mitigation measure **MM 3.5.1**, impacts will be **less than significant**.

Impacts to Archaeological Resources (Standard of Significance 2)

Impact 3.5.2 Implementation of the proposed project could result in a substantial adverse change in the significance of an archaeological resource, as well as the potential disturbance of currently undiscovered cultural resources (i.e., prehistoric archaeological sites, historical archaeological sites, and isolated artifacts and features). This impact is considered **potentially significant**.

An archaeological field survey of the subject property was conducted on November 6 and 15, 2012. The survey was conducted by walking parallel transects spaced approximately 15 meters apart across 100 percent of the subject property. During the field survey, an archaeologist discovered one isolated metavolcanic core reduction flake associated with the prehistoric manufacture of chipped stone tools. Isolated archaeological finds have limited data potential and are not considered eligible for the CRHR. Therefore, excavations could occur in association with development of the proposed project that could affect archaeological resources buried on the project site. It is possible that project-related ground-disturbing activities could uncover previously unknown archaeological resources within project boundaries. Unanticipated and accidental archaeological discoveries during project implementation have the potential to affect archaeological resources.

Mitigation Measures

MM 3.5.2a If during grading or construction activities cultural resources are discovered on the project site, work shall be halted immediately within 50 feet of the discovery and the resources shall be evaluated by a qualified archaeologist (retained by the applicant), the Pechanga Tribe, and the Soboba Band. Any unanticipated

3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

cultural resources that are discovered shall be evaluated and a final report prepared by the qualified archaeologist. The report shall include a list of the resources discovered, documentation of each site/locality, and interpretation of the resources identified, and the method of preservation and/or recovery for identified resources. In the event the significant resources are recovered and if the qualified archaeologist, the Tribe, and/or the Band determines the resources to be historic or unique, avoidance and/or mitigation would be required pursuant to and consistent with CEQA Guidelines Sections 15064.5 and 15126.4, Public Resources Code Section 21083.2, and the Cultural Resources Treatment and Monitoring Agreement required by mitigation measure MM 3.5.2b.

Timing/Implementation: *Prior to ground-disturbing construction activities*

Enforcement/Monitoring: *City of Wildomar Building and Planning Departments*

MM 3.5.2b

At least 30 days prior to the issuance of a grading permit, the project applicant shall contact both the Pechanga Tribe and the Soboba Band to notify them of grading, excavation, and the monitoring program and to coordinate with the City of Wildomar, the Tribe, and the Band to develop a Cultural Resources Treatment and Monitoring Agreement. The agreement shall include, but not be limited to, outlining provisions and requirements for addressing the treatment of cultural resources; project grading and development scheduling; terms of compensation for the monitors; treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site; and establishing on-site monitoring provisions and/or requirements for professional Tribal/Band monitors during all ground-disturbing activities. A copy of this signed agreement shall be provided to the Planning Director and Building Official prior to the issuance of the first grading permit.

Timing/Implementation: *Prior to the issuance of a grading permit*

Enforcement/Monitoring: *City of Wildomar Engineering and Planning Departments*

Following implementation of mitigation measures **MM 3.5.2a and MM 3.5.2b** , impacts will be **less than significant**.

Impacts to Paleontological Resources (Standard of Significance 3)

Impact 3.5.3 Implementation of the proposed project could directly or indirectly destroy a unique paleontological resource or site. This impact is considered **potentially significant**.

Samuel A. McLeod, PhD, from the National History Museum of Los Angeles County, conducted a thorough check for BCR Consulting of the paleontology collection records for the locality and specimen date for the proposed project. In the collection records search, no vertebrate fossil localities that lie directly within the proposed project boundaries were found; however, localities were found nearby from the same deposits that occur in the proposed project area. The entire project area has exposures of the terrestrial Plio-Pleistocene Pauba Formation.

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The closest known fossil vertebrate localities to the proposed project area from the Pauba Formation are all located southeast of the proposed project area east of Interstate 15 around Winchester Road (State Route 79). One locality is situated along Ynez Road north of Winchester Road and Santa Gertrudis Creek. Two others are situated along Margarita Road south of Winchester Road and Santa Gertrudis Creek. All three localities produced specimens of fossil horses, Equidae. Further southeast of the proposed project, in Temecula but still in the Pauba Formation, there are several vertebrate fossil localities.

Any substantial excavations in the proposed project area may encounter significant vertebrate fossils from the Pauba Formation deposits; thus, they should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. It should be noted, however, that in the Pauba Formation many of the vertebrate fossils are relatively small and would be missed during typical paleontological monitoring. Sediment samples from any excavations in the Pauba Formation should be collected and processed to assess their small vertebrate fossil potential. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations. The following mitigation is required.

Mitigation Measures

MM 3.5.3a The project applicant shall retain a qualified paleontologist to monitor all initial ground-disturbing activities in native soils or sediments. If the paleontologist, upon observing initial earthwork, determines there is low potential for discovery, no further action shall be required and the paleontologist shall submit a memo to the City confirming findings of low potential.

Should any paleontological resources (i.e., fossils) be uncovered during project construction activities, all work within a 100-foot radius of the discovery site shall be halted or diverted to other areas on the site and the City shall be immediately notified. The qualified paleontologist shall evaluate the finds and recommend appropriate next steps to ensure that the resource is not substantially adversely impacted, including but not limited to avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Further ground disturbance shall not resume within a 100-foot radius of the discovery site until an agreement has been reached between the project applicant, the qualified paleontologist, and the City as to the appropriate preservation or mitigation measures to ensure that the resource is not substantially adversely impacted.

Timing/Implementation: Prior to, and during ground-disturbing construction activities

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

MM 3.5.3b A qualified paleontologist or paleontological monitor (retained by the applicant) shall monitor all mass grading and excavation activities. Monitoring will be conducted in areas of grading or excavation in undisturbed formational sediments, as well as where over-excavation of surficial alluvial sediments will encounter these formations in the subsurface. Paleontological monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediment that are likely to

3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined on exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources.

Timing/Implementation: *During ground-disturbing construction activities*

Enforcement/Monitoring: *City of Wildomar Engineering and Planning Departments*

MM 3.5.3c Any recovered paleontological specimens shall be identified to the lowest taxonomic level possible and prepared for permanent preservation. Screen-washing of sediments to recover small invertebrates and vertebrates shall occur if necessary.

Timing/Implementation: *During ground-disturbing construction activities*

Enforcement/Monitoring: *City of Wildomar Engineering and Planning Departments*

MM 3.5.3d Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage shall occur at an institutional repository approved by the City of Wildomar. The paleontological program shall include a written repository agreement prior to the initiation of mitigation activities.

Timing/Implementation: *Agreement prior to ground-disturbing construction activities and curation prior to occupancy*

Enforcement/Monitoring: *City of Wildomar Engineering and Planning Departments*

MM 3.5.3e A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location. The report, when submitted to and accepted by the City of Wildomar, shall signify satisfactory completion of the project program to mitigate impacts to any potential nonrenewable paleontological resources (i.e., fossils) that might have been lost or otherwise adversely affected without such a program in place.

Timing/Implementation: *Following ground-disturbing activities, and prior to occupancy*

Enforcement/Monitoring: *City of Wildomar Engineering and Planning Departments*

Implementation of mitigation measures **MM 3.5.3a** through **MM 3.5.3e** would ensure that any paleontological resources inadvertently discovered during project construction activities would

be protected consistent with the recommendations of a qualified paleontologist. Impacts would be reduced to a **less than significant** level.

Impacts to Human Remains (Standard of Significance 4)

Impact 3.5.4 No human remains have been identified within the project site; however, implementation of the proposed project could result in the inadvertent disturbance of currently undiscovered human remains. Any discovery of human remains would trigger state law governing the treatment of human remains. Therefore, this impact is considered to be **potentially significant**.

Although no human remains have been identified within the project site, implementation of the proposed project would include ground-disturbing construction activities that could result in the inadvertent disturbance of currently undiscovered human remains. Procedures of conduct following the discovery of human remains on non-federal lands are mandated by Health and Safety Code Section 7050.5, by Public Resources Code Section 5097.98, and by CEQA in California Code of Regulations Section 15064.5(e). According to these provisions, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The remains are required to be left in place and free from disturbance until a final decision as to the treatment and their disposition has been made. The Riverside County Coroner would be immediately notified, and the coroner would then determine whether the remains are Native American. If the coroner determines the remains are Native American, the coroner has 24 hours to notify the Native American Heritage Commission, which will in turn notify the person identified as the most likely descendant (MLD) of any human remains. Further actions would be determined, in part, by the desires of the MLD, who has 24 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 24 hours, the owner is required, with appropriate dignity, to reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendant may request mediation by the Native American Heritage Commission. Any discovery of human remains within the project site would be subject to these procedural requirements, which would reduce impacts associated with the discovery/disturbance of human remains to a **less than significant** level.

Mitigation Measures

MM 3.5.4a If human remains are encountered, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the 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 Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the NAHC shall identify the most likely descendant within 24 hours of receiving notification from the coroner. The most likely descendant shall then have 48 hours to make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

Timing/Implementation: During ground-disturbing construction activities

3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

MM 3.5.4b

All cultural materials, with the exception of sacred items, burial goods, and human remains, which will be addressed in the Cultural Resources Treatment and Monitoring Agreement required by mitigation measure MM 3.5.2b, collected during the grading monitoring program and from any previous archaeological studies or excavations on the project site shall be curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to the Pechanga Tribe's curation facility or the Soboba Band, whichever is appropriate, which meets the standards set forth in 36 Code of Federal Regulations (CFR) Part 79 for federal repositories.

Timing/Implementation: During ground-disturbing construction activities

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

MM 3.5.4c

All sacred sites, should they be encountered within the project site, shall be avoided and preserved as the preferred mitigation, if feasible as determined by a qualified professional in consultation with both the Pechanga Tribe and the Soboba Band. To the extent that a sacred site cannot be feasibly preserved in place or left in an undisturbed state, mitigation measures shall be required pursuant to and consistent with Public Resources Code Section 21083.2 and CEQA Guidelines Sections 15064.5 and 15126.4.

Timing/Implementation: During ground-disturbing construction activities

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

With implementation of mitigation measure **MM 3.5.4a** through **MM 3.5.4c**, the provisions of state law regarding the accidental discovery of human remains will be followed, ensuring that impacts are reduced to a **less than significant** level.

3.5.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting associated with the proposed project includes approved, proposed, planned, and other reasonably foreseeable projects and development in Wildomar. Developments and planned land uses, including the proposed project, would cumulatively contribute to impacts to known and unknown cultural resources and paleontological resources in the area. The Existing Setting subsection provides an overview of cultural resources and the history of the region.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Cultural and Paleontological Resources

Impact 3.5.5 Implementation of the proposed project, along with any foreseeable development in the project vicinity, could result in cumulative impacts to cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features). This contribution would be considered **less than cumulatively considerable**.

As mitigated, the direct impacts associated with the proposed project will be reduced to a less than significant level. While it is possible that grading and development will result in the accidental discovery of paleontological and cultural resources, mitigation measures and state and federal laws already in place will set in motion actions designed to mitigate these potential impacts. The proposed project is adjacent to existing development that has disturbed the soil and likely already affected any cultural or paleontological resources. As a result of surrounding development, mitigation proposed in this section, and existing federal and state laws, this impact is considered **less than cumulatively considerable**.

Mitigation Measures

None required.

3.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

REFERENCES

BCR Consulting LLC. 2015. *Cultural Resources Assessment, Prielipp Property, Wildomar, Riverside County, California*.

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3.6 GEOLOGY AND SOILS

This section describes the current geologic and soil conditions of the proposed Horizons Development Project site and general vicinity and analyzes issues such as potential exposure of people and property to seismic and geologic hazards such as ground rupture, settlement, and landslides. The types of soils that have been identified on the project site and their properties as they relate to the proposed project are also discussed. Impacts associated with erosion during construction and operation of the proposed project are discussed in Section 3.8, Hydrology and Water Quality, of this Draft EIR. This section is based on the Preliminary Geotechnical and Fault Rupture Hazard Investigation prepared by Geocon West, Inc. (2014) for the Horizon Development Project, included as **Appendix 3.6**.

3.6.1 EXISTING SETTING

REGIONAL GEOLOGY

Wildomar is located regionally within the Peninsular Ranges Geomorphic Province of California. Characterized by steep, elongated valleys that trend west to northwest, the topography of the northwest-trending Peninsular Ranges is controlled by the Elsinore fault zone, which extends from the San Gabriel River Valley southeasterly to the United States-Mexico border.

The mountainous regions of the Peninsular Ranges Geomorphic Province are underlain by Pre-Cretaceous metasedimentary and metavolcanic rocks, and Cretaceous plutonic rocks of the Southern California Batholith. Tertiary and Quaternary rocks generally comprise non-marine sediments consisting of sandstone, mudstones, conglomerates, and occasionally volcanic units.

Local Geologic Setting

The project site is located southeast of the Elsinore trough within the Peninsular Ranges Geomorphic Province. The Peninsular Ranges are bounded on the north by the Transverse Ranges and the Cucamonga/Sierra Madre faults, on the east by the San Jacinto fault, and on the west by the Elsinore fault and the Santa Ana Mountains. The Peninsular Ranges extend southward into Mexico. The Peninsular Ranges are characterized by granitic highlands of low to moderate relief surrounded by alluvial plains and valleys. Locally, the Elsinore trough is the dominant geomorphic feature of the area and is a depressed land form between two parallel land faults (graben) that formed as a result of a left step over from the Wildomar fault to the Willard fault, which are mapped on the eastern and western sides of Lake Elsinore, respectively. Geologic units on the site are mapped as Pauba sandstone and alluvium (Geocon 2014).

Topography

Topography on the project site area ranges from 1,330 feet to 1,380 feet above mean sea level. The topography consists of an alluvial plain that gently descends to the west-southwest.

SOILS

The earth materials on the site are primarily composed of topsoil, colluviums, and alluvium overlying Pauba sandstone (Geocon 2014). The location of each of these underlying geologic types is included in **Appendix 3.6**, and a general description of the soil and bedrock materials observed on the site follows.

- **Younger Alluvium/Topsoil (Qal)** – Topsoil overlies the hillsides of the site to depths of 6 to 18 inches. It consists of dry, loose (recently plowed), slightly blocky silty sand. Younger

3.6 GEOLOGY AND SOILS

alluvium was also encountered in the southern portion of site along the drainage margins to depths of 12 feet and within drainage areas to depths of 3 to 5 feet. The alluvium generally consists of moist, loose to medium dense, interlayered silty sand, sand, and cobbles. It is unsuitable for the support of structures or additional fill and will require removal during grading. The alluvium can be reused as fill providing all deleterious materials are removed.

- **Colluvium (Qcol)** – Colluvium overlies the unnamed and Pauba sandstones on both sites. It is generally 6 to 30 inches in the site. The colluvium consists of red-brown clayey sand. The unit is dense, dry to moist, and blocky with clay development on ped facies and weathering rinds on gravel and cobbles. The colluvium is not suitable to provide a base for structures or fill loads and should be removed during grading. It may be used as fill for the site providing all deleterious materials are removed.
- **Pauba Sandstone (Qps)** – Early Pleistocene-age Pauba sandstone was encountered entirely underlying soils in the southern portion of the site. Pauba consists of generally red-brown silty to poorly graded sandstone that is dense, moist, and friable. Conglomerate layers were common, as were siltstone layers. Fault Trench FT-3 exposure revealed Pauba sandstone that resembles a terrace deposit with interlayered coarse friable sandstone beds and conglomerate. Unweathered Pauba is suitable for the support of structural and fill loads.

Collapsible and Expansive Soils

Soil permeability is the property of the soil to transmit water and air. The more permeable the soil, the greater the seepage (FAO 2013), resulting in higher rates of infiltration. Pore size and number of pores closely relate to soil texture and structure, and also influence permeability (FAO 2013). Soils that transmit water faster (such as sandy soils) and have higher permeability will have less shrink-swell potential because less water retention occurs with these types of soils.

Conversely, soils that transmit water at a slower rate (such as soils with high clay content) have lower permeability and therefore higher shrink-swell potential and the potential for significant expansion. Expansive clay minerals include smectite, bentonite, montmorillonite, beidellite, vermiculite, attapulgite, nontronite, illite, and chlorite. When structures are located on expansive soils, foundations have the tendency to rise during the wet season and shrink during the dry season. This movement can create new stresses on various sections of the foundation and connected utilities and can lead to structural failure and damage to infrastructure. Swelling soils can typically cause cracked foundations, floors, and basement walls. Damage to the upper floors of a building can occur when motion in the structure is significant. Soils encountered during a field investigation conducted by Geocon indicate that the majority of soils on-site have very low to low expansion potential (expansion index of 50 or less) (see **Appendix 3.6**). **Table 3.6-1** illustrates the expansion index and expansion classification. The 2013 California Building Standards Code (CBSC) considers an expansion index of 20 or less to be non-expansive and 21 or more to be expansive (Geocon 2014).

TABLE 3.6-1
EXPANSION CLASSIFICATION BASED ON EXPANSION INDEX

Expansion Index	Expansion Classification	2013 CBSC Expansion Classification
0–20	Very Low	Non-Expansive
21–50	Low	Expansive
51–90	Medium	
91–130	High	
Greater Than 130	Very High	

Source: FAO 2013

Subsidence refers to the sudden sinking or gradual downward settling and compaction of soil and other surface material with little or no horizontal motion. It may be caused by a variety of human and natural activities, including earthquakes. According to the City's General Plan, Wildomar is located in a susceptible subsidence zone. The site is near The Colony, which experienced significant subsidence in the late 1980s and early 1990s where alluvium over granitic bedrock became saturated and settled after residential and golf course irrigation began (Geocon 2014). As a result, there is a potential that the proposed project site is susceptible to subsidence.

FAULTING AND SEISMICITY

Earthquakes are the result of an abrupt release of energy stored in the earth. This energy is generated from the forces that cause the continents to change their relative position on the earth's surface, a process called "continental drift." The earth's outer shell is composed of a number of relatively rigid plates that move slowly over the comparatively fluid molten layer below. The boundaries between plates are where the more active geologic processes take place. Earthquakes are an incidental product of these processes.

Ground Shaking

In populated areas, the greatest potential for loss of life and property damage could come as a result of ground shaking from a nearby earthquake. The degree of damage depends on many interrelated factors. Among these are the Richter magnitude, focal depth, distance from the causative fault, source mechanism, duration of shaking, high rock accelerations, type of surficial deposits or bedrock, degree of consolidation of surficial deposits, presence of high groundwater, topography, and design, type, and quality of building construction.

Ground shaking is the byproduct of an earthquake and is the energy created as rocks break and slip along a fault (Christenson 1994). The amount of ground shaking to which an area may be subject during an earthquake is related to the proximity of the area to the fault, the depth of the hypocenter (focal depth), the location of the epicenter, and the size (magnitude) of the earthquake. Soil type also plays a role in the intensity of shaking. Bedrock or other dense or consolidated materials are less prone to intense ground shaking than soils formed from alluvial deposition.

The strength of an earthquake is generally expressed in two ways: magnitude and intensity. The magnitude is a measure that depends on the seismic energy radiated by the earthquake as recorded on seismographs. The intensity at a specific location is a measure that depends on the

3.6 GEOLOGY AND SOILS

effects of the earthquake on people or buildings and is used to express the severity of ground shaking. Although there is only one magnitude for a specific earthquake, there may be many values of intensity (damage) for that earthquake at different sites.

The most commonly used magnitude scale today is the moment magnitude (Mw) scale. Moment magnitude is related to the physical size of fault rupture and the movement (displacement) across the fault, and it is therefore a more uniform measure of the strength of an earthquake. The seismic moment of an earthquake is determined by the resistance of rocks to faulting multiplied by the area of the fault that ruptures and by the average displacement that occurs across the fault during the earthquake. The seismic moment determines the energy that can be radiated by an earthquake and hence the seismogram recorded by a modern seismograph (CGS 2002).

The most commonly used scale to measure earthquake intensities (ground shaking and damage) is the Modified Mercalli Intensity Scale, which measures the intensity of an earthquake's effects in a given locality and is based on observations of earthquake effects at specific places. On the Modified Mercalli Intensity Scale, values range from I to XII (see **Table 3.6-2**). While an earthquake has only one magnitude, it can have various intensities, which decrease with distance from the epicenter (CGS 2002).

Table 3.6-2 provides descriptions of the effects of ground shaking intensities along with a general range of moment magnitudes that are often associated with those intensities. Corresponding averages for peak ground velocity and peak acceleration are also provided.

**TABLE 3.6-2
MODIFIED MERCALLI INTENSITY SCALE FOR EARTHQUAKES**

Richter Magnitude Scale	Modified Mercalli Scale	Effects of Intensity	Average Peak Ground Velocity (centimeters/second)	Average Peak Acceleration ^a
0.1–0.9	I	Not felt except by a very few under especially favorable circumstances.	—	—
1.0–2.9	II	Felt by only a few persons at rest, especially on upper floors of buildings.	—	—
3.0–3.9	III	Felt quite noticeably in doors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration like passing a truck.	—	0.0035–0.007 g
4.0–4.5	IV	During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensation like heavy truck striking building. Standing cars rocked noticeably.	1–3	0.015–0.035 g
4.6–4.9	V	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.	3–7	0.035–0.07 g
5.0–5.5	VI	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.	7–20	0.07–0.15 g
5.6–6.4	VII	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.	20–60	0.15–0.35 g

Richter Magnitude Scale	Modified Mercalli Scale	Effects of Intensity	Average Peak Ground Velocity (centimeters/second)	Average Peak Acceleration ^a
6.5–6.9	VIII	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.	60–200	0.35–0.7 g
7.0–7.4	IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.	200–500	0.7–1.2 g
7.5–7.9	X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.	≥ 500	> 1.2 g
8.0–8.4	XI	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.	—	—
8.5+	XII	Damage total. Lines of sight and level are distorted. Objects thrown into the air.	—	—

Source: USGS 2012

a. Peak acceleration is expressed in “g” (the acceleration due to earth’s gravity, equivalent to g-force).

The site is located in the seismically active Southern California region and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active faults in the region. An “active” fault is one that shows displacement within the last 11,000 years and therefore is considered more likely to generate a future earthquake. The 1994 Alquist-Priolo Earthquake Fault Zoning Act requires the California State Geologist to establish regulatory zones (now known as Earthquake Fault Zones; prior to January 1, 1994, these zones were known as Special Earthquake Study Zones) around the surface traces of active faults that pose a risk of surface ground rupture and to issue appropriate maps in order to mitigate the hazard of surface faulting to structures for human occupancy.

According to field investigation conducted by Geocon (**Appendix 3.6**), the closest surface trace of an active fault to the site is the Temecula branch of the Elsinore fault located approximately 2 miles west of the site. Riverside County depicts an unnamed mapped fault trending northwest across the project site. However, the site is not within a currently established Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards (Geocon 2014). Additionally, Geocon performed field investigation at the project site to determine whether the fault could result in seismic activity. The field investigation consisted of excavating two fault trenches totaling 184 feet along the fault. Based on this field investigation, older faulting along this fault was observed within the layer of unnamed sandstone, which is approximately 1.6 million years old.¹ Pauba sandstone, which is approximately 1 million years old, is located directly above the unnamed sandstone. No active faulting was observed in the Pauba sandstone layer or since that time. Therefore, because Geocon concluded that no active faulting was observed along the fault within the last 11,000 years, no active faulting is anticipated to occur on-site.

Other nearby active faults are the Glen Ivy branch of the Elsinore fault located approximately 7.5 miles northwest of the site, the Julian branch of the Elsinore fault 20 miles to the southeast, the San Jacinto fault 20 miles to the northeast, the Anza branch of the Elsinore fault 21 miles to the

¹ Faulting older than the +11,000-year-old colluviums encountered.

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east, and the Chino-Central Avenue fault 25 miles to the north (Geocon 2014). However, no faulting was observed during site reconnaissance conducted by Geocon (2014). **Figure 3.6-1** illustrates faults in proximity to the project site.

Liquefaction

Liquefaction occurs when loose sand and silt that is saturated with water behaves like a liquid when shaken by an earthquake. Earthquake waves cause water pressures to increase in the sediment and the sand grains to lose contact with each other, leading the sediment to lose strength and behave like a liquid. The soil can lose its ability to support structures, flow down even very gentle slopes, and erupt to the ground surface to form sand boils. Many of these phenomena are accompanied by settlement of the ground surface, usually in uneven patterns that damage buildings, roads, and pipelines (USGS 2009).

Three factors are required for liquefaction to occur: (1) loose, granular sediment (typically “made” land and beach and stream deposits that are young enough (late Holocene) to be loose); (2) saturation of the sediment by shallow groundwater (water fills the spaces between sand and silt grains); and (3) strong shaking. Liquefaction causes three types of ground failure: lateral spreads, flow failures, and loss of bearing strength. In addition, liquefaction enhances ground settlement and sometimes generates sand boils (fountains of water and sediment emanating from the pressurized liquefied zone). According to the geotechnical study conducted by Geocon (2014), due to the shallow depth to the dense nature of the underlying bedrock (Pauba formation), the potential for liquefaction at the site is considered very low.

Landslides and Slope Failure

Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides, and rockfall—processes that are commonly triggered by intense precipitation, which varies according to climatic shifts. Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil.

Geologists classify landslides into several different types that reflect differences in the type of material and type of movement. The four most common types of landslides are translational, rotational, earth flow, and rockfall. Debris flows are another common type of landslide similar to earth flows, except that the soil and rock particles are coarser. Mudslide is a term that appears in nontechnical literature to describe a variety of shallow, rapidly moving earth flows.

Based on field investigation, Geocon (2014) did not observe any evidence of large-scale slope stability issues on the site or evidence of slope failures on the aerial photographs reviewed for their study. Additionally, the site is relatively flat. Therefore, based on field visit and review of geologic materials, the potential for slope instability at the site is considered low.

Seiches and Tsunamis

There is no potential for seiche or tsunami at the proposed project site because no large surface water bodies (lakes, reservoirs, etc.) are located nearby. The Federal Emergency Management Agency’s (FEMA) National Flood Insurance Program designates the proposed project site as within Zone X per Flood Insurance Rate Map Panel 06065C2705G dated August 28, 2008, which indicates minimal flooding potential. This subject is further discussed and analyzed in Section 3.8, Hydrology and Water Quality.



HORIZONS

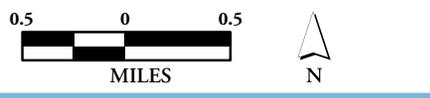
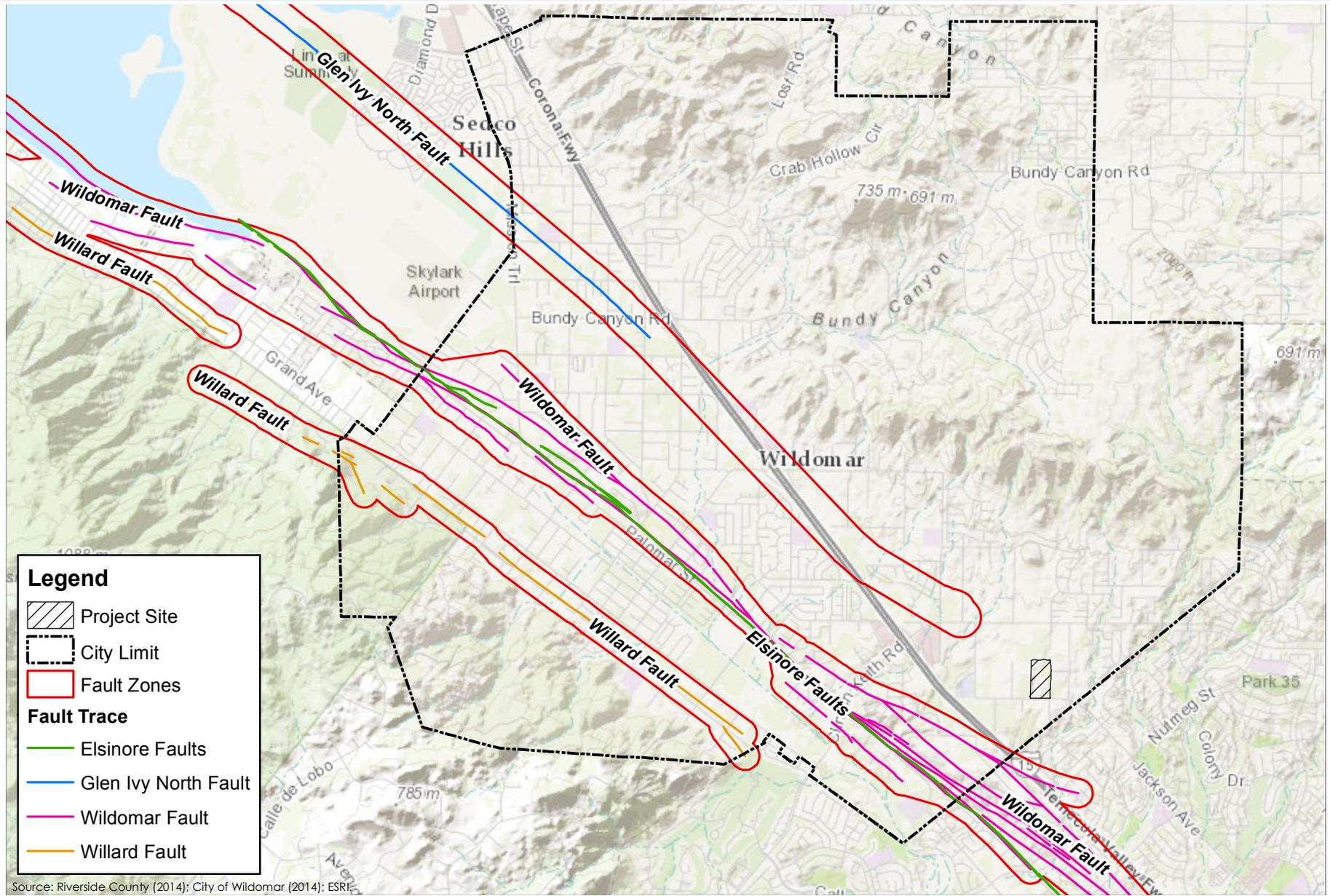


Figure 3.6-1
Fault Zones

3.6.2 REGULATORY FRAMEWORK

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 (originally enacted as the Alquist-Priolo Special Studies Zones Act and renamed in 1994) and is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. It only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as earthquake fault zones around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. There are no earthquake fault zones subject to the Alquist-Priolo Earthquake Fault Zoning Act in the area of the project site (Geocon 2014).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act addresses nonsurface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. Passed by the California legislature in 1990, this law was codified in the Public Resources Code as Division 2, Chapter 7.8A, and became operative in April 1991. The Seismic Hazards Mapping Act resulted in a mapping program that is intended to reflect areas that have the potential for liquefaction, landslide, strong earth ground shaking, or other earthquake and geologic hazards. In Riverside County, only Murrieta has an official seismic-hazard zone map. Wildomar is shown as a planned mapping area as of the date of the map in 2008 (DOC 2012b).

California Building Standards Code

The State of California provides minimum standards for building design through the California Building Standards Code (CBSC) (California Code of Regulations, Title 24). The CBSC is based on the Uniform Building Code (UBC), which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for conditions in California. State regulations and engineering standards related to geology, soils, and seismic activity in the UBC are reflected in the CBSC requirements. Through the CBSC, the State of California provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control. Wildomar enforces the CBSC through its Municipal Code. The City's Building Code (Wildomar Municipal Code, Title 8) incorporates the CBSC, including recent changes.

LOCAL

City of Wildomar General Plan

The Public Safety Element of the General Plan (2008) introduces safety considerations into the City's planning and decision-making processes to reduce the risk of injury, loss of life, property damage, and economic and social dislocation resulting from natural and man-made hazards.

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Specific programs, objectives, and implementing policies in the Public Safety Element address geology and seismic safety.

City of Wildomar Design Standards and Guidelines

The City Design Standards and Guidelines are for the use property owners and design professionals submitting development applications to the City Planning Department and are intended to provide the minimum specifications for land development. Provisions of the Design Standards and Guidelines pertain to residential, commercial, industrial, wireless communication facility, and auto sale land uses.

3.6.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a geology and soils impact is considered significant if project implementation would result in any of the following:

- 1) 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 California Geological Survey (formerly Division of Mines and Geology) Special Publication 42.
 - ii) Strong seismic ground shaking.
 - iii) Seismic-related ground failure, including liquefaction.
 - iv) Landslides.
- 2) Result in substantial soil erosion or the loss of topsoil.
- 3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- 4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- 5) 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.

The proposed project site will be connected to sewer lines. As such, the project site will not be using a septic tank and therefore no impacts are associated with this issue area. For this reason, Standard of Significance 5 will not be discussed further in this EIR.

METHODOLOGY

The analysis in this section is based on review of the geotechnical study (Geocon 2014). The purpose of the investigation was to evaluate the pertinent geotechnical conditions at the site

and to provide geotechnical design criteria for, but not limited to, grading, construction, foundation design, retaining walls, pavement design, and other relevant aspects relative to the proposed development of the site. Geocon's investigation included site reconnaissance, review of available geologic literature, geotechnical field exploration, laboratory testing, engineering analysis, fault trench excavations, and geologic logging.

PROJECT IMPACTS AND MITIGATION MEASURES

Impacts Associated with Fault Rupture (Standard of Significance 1a)

Impact 3.6.1 The potential for the project site to be exposed to hazards associated with fault rupture is considered unlikely. Therefore, this impact is considered **less than significant**.

Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Alquist-Priolo Earthquake Fault Zone. As discussed in the Existing Setting subsection above, the Temecula branch of the Elsinore fault is the closest surface trace of an active fault and is approximately 2 miles west of the project site. Further, Geocon performed a fault hazard investigation on the project site. The results of the field investigation concluded that the unnamed fault that runs through the project site is not likely to result in surface rupture. This is because trenches excavated during the field investigation did not show any evidence of faulting within the Pauba sandstone soil layer, which means that the unnamed fault has not moved in the last 1.6 million years and is considered inactive (Geocon 2014). As a result, the potential for fault surface rupture on the site is very unlikely (Geocon 2014). Therefore, impacts would be **less than significant**.

Mitigation Measures

None required.

Impacts Associated with Strong Seismic Ground Shaking (Standard of Significance 1b)

Impact 3.6.2 The project site is located in an area that may be subject to strong seismic ground shaking. The proposed project would be designed in accordance with development requirements of the California Building Standards Code as well as the geotechnical study. However, this impact is considered **potentially significant**.

Southern California has numerous active seismic faults subjecting people to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for people and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

According to the geotechnical study (Geocon 2014), the project site is located in a seismically active area and could experience ground shaking associated with an earthquake along the faults in proximity to the proposed project site. The type or severity of seismic hazards affecting the site is mainly dependent on the distance to the causative fault, the intensity of the seismic event, and

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the soil characteristics. The seismic hazard may either be primary or secondary, as described above. Although some structural damage is typically not avoidable during a large earthquake, the proposed project components would be constructed to meet existing construction ordinances and the CBSC in order to protect against building collapse and major injury during a seismic event. The CBSC includes design criteria for seismic loading and other geologic hazards, including design criteria for geologically induced loading that govern sizing of structural members and provide calculation methods to assist in the design process. Thus, while shaking impacts would be potentially damaging, they would also tend to be reduced in their structural effects due to CBSC criteria that recognize this potential. The CBSC includes provisions for buildings to structurally survive an earthquake without collapsing and includes measures such as anchoring to the foundation, increased bracing, specific framing brackets, and structural frame design.

Mitigation Measures

MM 3.6.2 The project applicant shall incorporate the recommendations of the preliminary geotechnical and fault rupture hazard investigation conducted by Geocon (2014; **Appendix 3.6**) into project plans. The project's building plans shall demonstrate that they incorporate all applicable recommendations of the geotechnical study and comply with all applicable requirements of the latest adopted version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering, structural foundations, and installation. All on-site soil engineering activities shall be conducted under the supervision of a licensed geotechnical engineer or certified engineering geologist.

Timing/Implementation: Prior to construction activities

Enforcement/Monitoring: City of Wildomar Building and Planning Departments

Implementation of mitigation measure **MM 3.6.2** and of the building requirements in the California Building Standards Code would reduce impacts to **less than significant**.

Exposure to Seismic-Related Ground Failure, Including Liquefaction and Unstable Soils (Standards of Significance 1c and 1d)

Impact 3.6.3 The project site does not include on-site soils that may be subject to seismic-related ground failure, including liquefaction and landslide. However, engineered fill can change the composition of the underlying substrate. This impact is considered **potentially significant**.

Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Liquefaction is characterized by a loss of shear strength in the affected soil layers, thereby causing the soils to behave as a viscous liquid. Susceptibility to liquefaction is based on geologic data. River channels and floodplains are considered most susceptible to liquefaction, while alluvial fans have a lower susceptibility. As stated in the Existing Setting subsection above, due to the dense nature of the underlying bedrock, the potential for liquefaction to occur at the project site is very low (Geocon 2014). It should be noted that the project proposes a substantial amount of cut (265,238 cubic yards) and fill (230,741 cubic yards), which changes the composition of the underlying substrate. Engineered fill typically results in more efficient and even compaction due to gradation and properties of the soil. However, poorly compacted fill can result in liquefaction-susceptible materials. Therefore, this impact is potentially significant.

The geotechnical study conducted by Geocon (2014; **Appendix 3.6**) includes foundation requirements that help to minimize potential structural defects associated with potential liquefaction. The geotechnical study also includes lateral design requirements that address construction over engineered fill. Mitigation measure **MM 3.6.2** requires adherence to the recommendations in the geotechnical study conducted by Geocon (2014; **Appendix 3.6**), as well as compliance with the CBSC requirements, and therefore reduces this impact to less than significant. A review of geologic literature, geologic mapping, and field investigation did not include the presence of landslides on or adjacent to the site. Additionally, due to the dense nature of the underlying bedrock (Pauba formation) (Geocon 2014) (see **Appendix 3.6**) and because of the relatively flat terrain of the project site, landslide susceptibility is low. As such, the potential for liquefaction or landslide is considered **less than significant**.

Mitigation Measures

No additional mitigation required.

Soil Erosion or Loss of Topsoil (Standard of Significance 2)

Impact 3.6.4 The proposed project could result in substantial soil erosion or the loss of topsoil. Therefore, impacts are **potentially significant**.

The proposed project site is currently undeveloped vacant land. Grading and excavation activities associated with construction of the proposed project would expose soils to potential short-term erosion by wind and water. The preliminary grading plans show export from the site of 34,497 cubic yards of material. The plans show that grading will extend beyond the boundaries of the project and outside of the right-of-way of Bunny Trail and Elizabeth Lane. This includes the property within and adjacent to the right-of-way indicated on the grading plans. However, all demolition and construction activities in the city are subject to compliance with the CBSC.

Additionally, all allowed development associated with the proposed project would be subject to compliance with the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit for construction activities (discussed in further detail in Section 3.8, Hydrology and Water Quality, of this DEIR). Compliance with the CBSC and the NPDES would minimize effects from erosion and ensure consistency with the Water Quality Control Plans of the San Diego Regional Water Quality Control Board (1994) and the Santa Ana Regional Water Quality Control Board (1995).

Further, a stormwater pollution prevention plan (SWPPP) would be required as part of the grading permit submittal package. The SWPPP provides a schedule for the implementation and maintenance of erosion control measures and a description of erosion control practices, including appropriate design details and a time schedule. The SWPPP would consider the full range of erosion control best management practices including any additional site-specific and seasonal conditions. Erosion control best management practices include, but are not limited to, the application of straw mulch, hydroseeding, the use of geotextiles, plastic covers, silt fences, and erosion control blankets, as well as construction site entrance/outlet tire washing. The State General Permit also requires that those implementing SWPPPs meet prerequisite qualifications that would demonstrate the skills, knowledge, and experience necessary to implement SWPPPs. NPDES requirements would significantly reduce the potential for substantial erosion or topsoil loss to occur in association with new development. Water quality features intended to reduce construction-related erosion impacts will be clearly denoted on the grading plans for implementation by the construction contractor. As part of the approval process, prior to grading plan approval, the project applicant will be required to comply with Chapter 13.12, Stormwater

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Drainage System Protection, of the City of Wildomar Municipal Code (see DEIR Section 3.8, Hydrology and Water Quality, for a discussion of this chapter of the Municipal Code).

The project applicant is required to incorporate the recommendations outlined in the geotechnical study provided by Geocon (**Appendix 3.6**) specific to grading (Section 7.3 of the technical study) into the project plans. Finally, implementation of mitigation measure **MM 3.6.2** requires the incorporation of all design recommendations outlined in the geotechnical investigation (**Appendix 3.6**) into project plans, while mitigation measure **MM 3.6.4** requires excavation and compaction during grading to help further prevent any potential project-related erosion.

Mitigation Measures

MM 3.6.4 At a minimum, all existing artificial fill, alluvium, and colluvium shall be excavated and properly compacted for foundation and slab support. Where Pauba sandstone is present at the ground surface, excavation on the order of 1 foot is anticipated. Where undocumented fill, alluvium, and colluvium are present, removals of up to approximately 12 feet should be anticipated. It is anticipated that deeper excavation of up to 12 feet will be required along the sides of the drainage channels. In addition, the fault trenches excavated as a part of the site investigation were loosely backfilled without testing and observation and will require re-excavation and compaction. See the geologic map (Geocon 2014; **Appendix 3.6**) for locations of the fault trenches and the trench logs in the study's Appendix C for trench depths (**Appendix 3.6**). Deeper excavations shall be conducted as necessary to completely remove all existing undocumented fill and unsuitable alluvium and colluvium. The anticipated depths of remedial grading are indicated adjacent to trenches, borings, and test pits located on the geologic map, Figure 2 of the geotechnical study (Geocon 2014).

Timing/Implementation: During construction

Enforcement/Monitoring: City of Wildomar City Public Works and Building Departments

Implementation of mitigation measures **MM 3.6.2** and **MM 3.6.4**, compliance with Wildomar Municipal Code Chapter 13.12 and NPDES requirements, and implementation of a stormwater pollution prevention plan would help to reduce soil erosion associated with the proposed project. As such, a **less than significant** impact would result with regard to this issue area.

Unstable Soils (Standard of Significance 3)

Impact 3.6.5 The proposed project could 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. Therefore, impacts are considered **potentially significant**.

Subsidence refers to the sudden sinking or gradual downward settling and compaction of soil and other surface material with little or no horizontal motion. Subsidence may be caused by a variety of human and natural activities, including earthquakes. As discussed in the Existing Setting subsection above, Wildomar is located in a susceptible subsidence zone. However, any potential future development associated with the proposed project would be designed in

accordance with CBSC requirements. This requirement is established in mitigation measure **MM 3.6.2**. Additionally, as discussed in the Existing Setting subsection, existing literature and mapping indicate that soils in Wildomar generally have low shrink-swell potential because they are generally sandy. However, soils developed on older alluvium have varying amounts of silt and clay. Soils with higher clay content and density could have more shrink-swell potential. As part of the proposed project, building pads would be graded with a cut/fill transition requiring undercutting to reduce the potential for differential settlement. This process would involve removal of any encountered unsuitable soils, the placement of engineered fill, and compaction in order to ensure that the proposed structures are adequately supported. These practices would ensure that the proposed project is located on stable soils and geologic units and would not be susceptible to settlement or ground failure.

Mitigation Measures

Implementation of mitigation measures **MM 3.6.2** and **MM 3.6.4**.

Adherence to CBSC requirements addressing structural seismic safety and the implementation of mitigation measures **MM 3.6.2** and **MM 3.6.4**, which requires exposing more stable substrate, will reduce this impact to **less than significant**.

Expansive Soils (Standard of Significance 4)

Impact 3.6.6 Soils testing indicates that the soils on the proposed project site are non-expansive. However, import soils or soils used near finish grade may have a different expansion index than what was tested. As such, impacts are **potentially significant**.

Soils tested on-site are expected to have low to very low expansion potential (Expansion Classification of 50 or less) (Geocon 2014). However, import soils or soils used near finish grade may have a different Expansion Index. Therefore, soils with higher expansion potential could be present on-site. As such, mitigation measures **MM 3.6.6a** and **MM 3.6.6b** include requirements for development consistent with the soil conditions found on the project site and are based on a very low expansion potential for the supporting material as determined by Chapter 18 of the California Building Standards Code. The City also requires that site-specific soils reports accompany a building permit application request, which ensures that the type of building proposed is consistent with the actual soils present on the proposed building location. Additionally, the City evaluates each foundation plan separately using information from the building permit and site-specific soils analysis.

Mitigation Measures

MM 3.6.6a To prevent foundation damage associated with potentially expansive soils, the applicant shall ensure that concrete slabs shall be designed to minimize cracking as a result of shrinkage and joints (isolation, contraction, and construction) and be placed in accordance with the American Concrete Institute guidelines. Additionally, special precautions should be taken during placement and curing of all concrete slabs. Excessive slump (high water/cement ratio) of the concrete and/or improper curing procedures used during either hot or cold weather conditions could result in excessive shrinkage, cracking, or curling in the slabs. All concrete proportioning, placement, and curing shall be performed in accordance with American Concrete Institute recommendations and procedures. Slab-on-grade

3.6 GEOLOGY AND SOILS

reinforcement and thickness shall be provided by the structural engineer based on final expansion testing at completion of grading.

Timing/Implementation: After site grading and during construction

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

MM 3.6.6b

All exterior concrete slabs cast on finish subgrade (patios, sidewalks, etc., with the exception of portland cement concrete pavement) shall be a minimum of 4 inches nominal in thickness. Reinforcement in the slabs and the use of a compacted sand or gravel base beneath the slabs shall be according to the current local standards. Subgrade soils shall be moisture conditioned to at least optimum moisture content to a depth of 12 inches immediately before placing the concrete.

Timing/Implementation: During construction

Enforcement/Monitoring: City of Wildomar Engineering and Planning Departments

In addition to requirements outlined in mitigation measures **MM 3.6.6a** and **MM 3.6.6b**, numerous other methods may be applied after consultation with the City and soils engineers. The precise method will be determined based on building and soils type and approved by the City as part of the building permit process. Compliance with development requirements specific to soil conditions found on-site, as detailed in mitigation measures **MM 3.6.6a** and **MM 3.6.6b**, and further consultation with the City and soils engineers will result in a **less than significant** impact regarding expansive soils.

3.6.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

Geotechnical impacts are site-specific rather than cumulative in nature. For example, seismic events may damage or destroy a building on the project site, but the construction of a development project on one site would not cause any adjacent parcels to become more susceptible to seismic events, nor can a project affect local geology in such a manner as to increase risks regionally. As a result the cumulative setting for this project is the project boundaries, which includes Prielipp Road and Elizabeth Lane.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Soil Stability and Seismic Impacts

Impact 3.6.7 Implementation of the proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in Wildomar and nearby areas of Riverside County, would not contribute to cumulative geologic and soils impacts. The proposed project's incremental contribution would be **less than cumulatively considerable**.

Soils associated with the project site are similar to others in the area. The proposed project will grade parts of the property. However, the resulting project site will not be visually and

topographically different from existing development surrounding the proposed project site. The proposed project will be graded to be similar to existing adjacent natural topography to avoid erosion. With compliance with existing codes and standards, including the California Building Standards Code and implementation of mitigation measures outlined in Impacts 3.6.1 through 3.6.6, the proposed project's contribution to cumulative impacts related to the area's geology would be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.6 GEOLOGY AND SOILS

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3.7 HAZARDS AND HAZARDOUS MATERIALS

3.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes the existing hazards and hazardous materials setting and potential effects from project implementation on the site and in the surrounding area. Descriptions and analysis in this section are based on information contained in the City of Wildomar General Plan (2008) and in the Phase I Environmental Site Assessment prepared by Hillmann Consulting in 2012 (**Appendix 3.7**).

3.7.1 EXISTING SETTING

HAZARDOUS MATERIALS DEFINED

Under Title 22 of the California Code of Regulations (CCR), the term *hazardous substance* refers to both hazardous materials and hazardous wastes, both of which are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness, or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (CCR Title 22, Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria. While hazardous substances are regulated by multiple agencies, as described below in the Regulatory Framework subsection, cleanup requirements of hazardous wastes are determined on a case-by-case basis according to the agency with lead jurisdiction over the project.

Public health is potentially at risk whenever hazardous materials are or will be used. It is necessary to differentiate between the "hazard" of these materials and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, in addition to the inherent toxicity of a material (DTSC 2007).

Factors that can influence the health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

ENVIRONMENTAL SITE ASSESSMENT

A Phase I Environmental Site Assessment is a report prepared for a real estate holding that identifies existing and potential environmental contamination liabilities. The analysis contained in a Phase I Environmental Site Assessment typically addresses both the underlying land and the physical improvements to the property and includes examination of potential soil contamination, groundwater quality, surface water quality, and indoor air quality. The examination of a site may include a survey of past uses of the property, definition of any chemical residues in structures, identification of possible asbestos-containing building materials and lead paints, inventory of hazardous substances stored or used on the site, assessment of mold and mildew, and evaluation of other indoor air quality parameters.

The Phase I Environmental Site Assessment is generally considered the first step in the process of environmental due diligence and does not include the actual sampling of soil, air, groundwater,

3.7 HAZARDS AND HAZARDOUS MATERIALS

and/or building materials. If the Phase I determines that a site may be contaminated, a Phase II Environmental Site Assessment may be conducted. A Phase II Environmental Site Assessment is a more detailed investigation involving chemical analysis for hazardous substances and/or petroleum hydrocarbons and may include recommendations for remediation of the site, if necessary. A Phase I Environmental Site Assessment was conducted for the project site by Hillmann Consulting for the proposed project site in August 2012 (**Appendix 3.7**). The contents of the Hillmann report are summarized throughout this section of the DEIR.

BACKGROUND REVIEW

A review of historic topographic, aerial photographs, historic Sanborn fire insurance maps, and historic city directories was performed to evaluate potentially adverse environmental conditions resulting from previous ownership and uses of the sites. Additionally, state and federal regulatory lists containing information regarding hazardous materials on or within a 1-mile radius of the project site were reviewed. Results from the background review are presented in the Phase I Environmental Site Assessment prepared by Hillman Consulting (**Appendix 3.7**).

SITE RECONNAISSANCE

A visual site reconnaissance and interview were conducted for the City of Wildomar for the project site. The reconnaissance included observations of surface conditions at the project site. Minor nuisance dumping, such as discarded tires, a hot tub, and other debris, were observed on-site. Additionally, the reconnaissance included site observations for the presence or absence of hazardous substances/petroleum products; generation, treatment, storage, or disposal of hazardous, regulated, or medical wastes; electrical equipment that utilizes oils which potentially contain polychlorinated biphenyls; and storage tanks (above or below ground). Detailed on-site conditions are described below and are also found in the Phase I Environmental Site Assessment (**Appendix 3.7**) conducted for the project site.

EXISTING PROJECT SITE CONDITIONS

The site is approximately 20 acres of undeveloped vacant land on the north side of Prielipp Road west of Elizabeth Lane.

EXISTING ENVIRONMENTAL HAZARDS

Waste Generation, Storage, and Disposal

Small amounts of debris, including tires and a hot tub, were noted during site reconnaissance. No evidence of hazardous waste generation or disposal was identified at the project site.

Waste Discharges

No residential, industrial, or process waste discharges were identified at the project site.

Underground/Aboveground Storage Tanks

No evidence of any active or inactive underground storage tanks was noted at the project site. The property was not listed on the underground storage tanks or leaking underground storage tank regulatory databases.

Drains/Sumps

No interior floor drains or sumps were noted at the project site.

Exterior Pits/Ponds/Lagoons

No evidence of exterior pits, ponds, or lagoons was identified on the property in connection with waste treatment or disposal.

Stained Soil, Pavement/Stressed Vegetation

No evidence of stained soils or stressed vegetation was identified on the project site.

Drinking Water/Wells/Septic Systems

No evidence of a domestic water supply system, wells, or septic systems was identified at the property.

HAZARDOUS BUILDING MATERIALS

Asbestos-Containing Materials

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is made up of microscopic bundles of fibers that may become airborne when asbestos-containing materials are damaged or disturbed. When these fibers get into the air, they may be inhaled into the lungs, where they can cause significant health problems. The California Occupational Health and Safety Administration (Cal/OSHA) defines asbestos-containing materials as any material that contains 0.1 percent asbestos by weight. Asbestos is commonly found in old buildings built between the 1940s and the mid-1970s. The project site consists of undeveloped land, so asbestos-containing materials are not likely to be prevalent. Therefore, asbestos-containing materials do not appear to be a significant environmental concern (Hillman 2012).

Hazardous Substance/Petroleum Products Storage Handling

No storage of hazardous substances or petroleum products was identified on the project site. No evidence of any spills or releases was observed during the site reconnaissance.

Lead-Based Paint

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably paint. Lead may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Primary sources of lead exposure are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil. Lead contamination can also come from cars built prior to the early 1980s. The property consists of undeveloped land, so lead-based paint is not likely to be present at the property. Therefore, lead-based paint does not appear to be a significant environmental concern (Hillmann 2012).

Mold

While a comprehensive inspection for the presence of mold and/or microbial growth is beyond the scope of this assessment, Hillmann (2012; Appendix 3.7) conducted a cursory screening for

3.7 HAZARDS AND HAZARDOUS MATERIALS

evidence of excessive or amplified mold growth, or for conditions favorable for mold growth. No evidence of significant mold growth was identified at the project site in the accessed areas during the cursory screening.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) were manufactured from 1929 until their manufacture was banned in 1979. Because of their versatility (non-flammability, chemical stability, high boiling point, and electrical insulation properties), PCBs were used in various industrial and commercial applications: electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and in many other industrial applications (EPA 2013). Although no longer used in the United States, there is a chance that PCBs may be found in products and materials manufactured before the 1979 ban. Industrial uses manufactured prior to 1979 could contain PCBs. Site reconnaissance conducted on the project site does not indicate the presence of PCBs on-site.

Radon

Radon is a naturally occurring, colorless, odorless gas that is a byproduct of the decay of radioactive materials potentially present in bedrock and soil. Radon gas may enter the lowest level of a building through floor cracks, structural joints or plumbing conduits. The US Environmental Protection Agency (EPA) guidance level for annual residential exposure to radon is 4.0 picocuries per liter of air (pCi/L). The guidance level is not a regulatory requirement for private owners of commercial real estate, but is commonly used for comparison purposes to suggest whether further action at a building may be prudent. Based on information obtained from data obtained by the EPA, the project site is located in an area with a moderate potential for radon concentrations that exceed current EPA action guidelines. The County of Riverside is classified as Zone 2, or a “moderate risk” area for radon. Considering the moderate risk, radon is not considered a significant concern (Hillmann 2012).

HAZARDOUS MATERIAL RECORDS REVIEW

Database Search Report

As part of the Phase I Environmental Site Assessment prepared for the project site in August 2012, Environmental Data Resources performed a search of standard sources of environmental records on hazardous materials, including both federal and state lists as well as local sources of information, to determine previously identified hazardous materials on or around the project site. All potential and known hazardous materials sites within a 1-mile radius were identified. A complete list of the specific databases searched can be found in **Appendix 3.7**.

No hazardous materials waste sites were identified on the project site; however, two leaking underground storage tanks listings were identified within a half-mile radius of the project site. Both of those listings were identified as the Inland Valley Regional Medical Center located at 36485 Inland Valley Drive. This listing states that the site received a “Completed – Case Closed” status in 2006. Considering the distance, status, and topographical relation to the property, this site is not considered to be a recognized environmental condition in connection with the project site (Hillman 2012; **Appendix 3.7**).

HAZARDOUS MATERIALS TRANSPORT, USE, AND STORAGE

The transportation of hazardous materials in California is subject to various federal, state, and local regulations. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery or the loading of such materials (California Vehicle Code Sections 31602(b) and 32104(a)). The California Highway Patrol (CHP) designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is restricted to these routes except in cases where additional travel is required from that route to deliver or receive hazardous materials to and from users. Information on CHP requirements and regulatory authority is provided in the Regulatory Framework subsection below.

3.7.2 REGULATORY FRAMEWORK

Federal, state, and local regulatory agencies that oversee hazardous materials handling and a summary of significant hazardous waste management, including the statutes and regulations these agencies administer, are described below.

FEDERAL

Environmental Protection Agency

The US Environmental Protection Agency provides leadership in the nation's environmental science, research, education, and assessment efforts. The EPA works closely with other federal agencies, state and local governments, and Native American tribes to develop and enforce regulations under existing environmental laws. The EPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes responsibility for issuing permits and monitoring and enforcing compliance.

Prior to August 1992, the principal agency at the federal level regulating the generation, transport, and disposal of hazardous waste was the EPA, under the authority of the Resource Conservation and Recovery Act. As of August 1, 1992, however, the California Department of Toxic Substances Control (DTSC) was authorized to implement California's hazardous waste management program for the EPA. The EPA continues to regulate hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act.

Hazardous Materials Transportation Act – Code of Federal Regulations

The Hazardous Materials Transportation Act was published in 1975. Its primary objective is to provide adequate protection against the risks to life and property inherent in the transportation of hazardous material in commerce by improving the regulatory and enforcement authority of the Secretary of Transportation. A hazardous material, as defined by the Secretary of Transportation, is any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property" (EPA 2011).

Federal Water Pollution Control Act (Clean Water Act)

The objective of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA), is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. The Oil Spill Prevention, Control, and Countermeasures Program of the

3.7 HAZARDS AND HAZARDOUS MATERIALS

Clean Water Act specifically seeks to prevent oil discharges from reaching waters of the United States or adjoining shorelines.

Federal Insecticide, Fungicide, and Rodenticide Act

The objective of the Federal Insecticide, Fungicide, and Rodenticide Act is to provide federal control of pesticide distribution, sale, and use. All pesticides used in the United States must be registered (licensed) by the EPA. Registration ensures that pesticides will be properly labeled and that, if used in accordance with specifications, they will not cause unreasonable harm to the environment. Use of each registered pesticide must be consistent with use directions contained on the label or labeling.

Other Federal Agencies

Other federal agencies that regulate hazardous materials include the Department of Transportation and the National Institute of Health. The following federal laws and guidelines govern hazardous materials:

- Clean Air Act
- Guidelines for Carcinogens and Biohazards
- Safe Drinking Water Act
- Toxic Substances Control Act

STATE

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) and the State Water Resources Control Board establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable state and local laws include the following:

- Public Safety/Fire/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

LOCAL

Riverside County

Fire Department Strategic Plan

The Riverside County Fire Department's (2009) Strategic Plan 2009–2029 covers fiscal years 2009–10 through 2029–30. The plan describes the array of fire and rescue services provided to citizens and provides an evaluation of the current status of various commonly used service performance

measures. The plan also makes recommendations for staffing, facilities, and station sites and remodels.

Multi-Jurisdictional Hazard Mitigation Plan

The purpose of the County of Riverside Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (Riverside County 2012) is to identify the county's hazards, review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards. The City of Wildomar participates in the Multi-Jurisdictional Hazard Mitigation Plan. The Community Emergency Response Team (CERT) is an important component of the plan. The CERT educates community members about disaster preparedness and trains them in basic response skills, such as fire safety, light search and rescue, and disaster medical operations. The City of Wildomar is one of 22 jurisdictions that supports and participates in the CERT.

Certified Unified Program Agency

The California Environmental Protection Agency (CalEPA) has designated the County of Riverside Department of Environmental Health as the Certified Unified Program Agency (CUPA) for Riverside County. The CUPA's role is to ensure consolidation, consistency, and coordination of the hazardous materials programs within the county. The CUPA also oversees Riverside Fire, which implements hazardous materials programs in the county.

The Riverside County Department of Environmental Health, Hazardous Materials Branch is responsible for overseeing the six hazardous materials programs in the county. The branch is responsible for inspecting facilities that handle hazardous materials, generate hazardous waste, treat hazardous waste, own/operate underground storage tanks, own/operate aboveground petroleum storage tanks, or handle other materials subject to the California Accidental Release Program. In addition, the branch maintains an emergency response team that responds to hazardous materials and other environmental health emergencies 24 hours a day, 7 days a week.

City of Wildomar

Municipal Code Chapter 8.28

Chapter 8.28, Fire Code, adopts the International Fire Code and the 2013 Edition of the California Fire Code.

Chapter 8.52

The purpose of Chapter 8.52, Hazardous Waste Control, is to monitor establishments where hazardous waste is generated, stored, handled, disposed, treated, or recycled and to regulate by the issuance of permits, the activities of establishments (any business, place, or activity of a commercial or noncommercial nature) where hazardous waste is generated. The provisions of this chapter are enforced by the County Department of Environmental Health, which is empowered to reasonable periodic inspections of establishments where hazardous waste is generated, stored, handled, disposed, treated, or recycled and all establishments where the department has reasonable cause to believe that hazardous waste is generated, stored, handled, disposed, treated, or recycled.

3.7 HAZARDS AND HAZARDOUS MATERIALS

Chapter 8.56

Chapter 8.56, Disclosure of Hazardous Materials and Formulation of Business Emergency Plans, implements the Hazardous Materials Release Response Plans and Inventory Law, Chapter 6.95 of the California Health and Safety Code, which establishes a system for permitting businesses that handle hazardous materials, enforces minimum standards respecting such materials, and designates the health services agency, the Department of Environmental Health, as the administering agency responsible for administering and enforcing California Health and Safety Code Chapter 6.95.

Section 16.08.040

Section 16.08.040, Street Grades, regulates subdivision street grades in the city to design a street system that is more compatible with the existing terrain. Grades for local streets may not exceed 16 percent, unless approved by both the Transportation and Fire departments. Grades up to 15 percent may be approved for short distances (200 feet).

3.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Based on the California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance, the proposed project would create a significant impact related to hazards and hazardous materials if it would:

- 1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- 3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- 4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- 5) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.
- 6) For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- 7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- 8) 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.

The project site is not in an area regulated by an airport land use plan; therefore, it is not necessary to address standards of significance 5 and 6.

METHODOLOGY

The following evaluation of the proposed project's potential to create hazards to the public health or the environment through the use, storage, or transport of hazardous materials is based primarily on the project description and information provided by the project applicant, a review of existing applicable regulations, and information regarding the locations of nearby public schools.

The analysis of the proposed project's impacts related to identified hazardous materials sites in the area, lead-based paints, and abandoned wells and irrigation infrastructure is based primarily on the Phase I Environmental Site Assessment prepared for the project site by Hillman Consulting in August 2012. In addition, this analysis was supplemented with an updated search of all federal, state, regional, and local government hazardous materials databases performed by Environmental Data Resources for Hillman Consulting as part of the Phase I Environmental Site Assessment.

IMPACTS AND MITIGATION MEASURES

Use, Storage, and Transport of Hazardous Materials (Standard of Significance 1)

Impact 3.7.1 Implementation of the proposed project would require limited amounts of commonly used hazardous materials, including solvents, paints, gasoline, fertilizers, and pesticides, during project construction and operation. Impacts related to the use, storage, and transport of these materials would be **less than significant**.

The development of the proposed project involves construction activities that could result in the transport, use, and disposal of hazardous materials such as gasoline fuels, asphalt, lubricants, toxic solvents, pesticides, and herbicides. The transport, use, and disposal of these materials could pose a potential hazard to the public and the environment. However, construction of the proposed project would be short term.

The project proposes a residential development, which includes townhomes as well as senior housing options at various care levels. Residential development is not expected to involve the routine transport, use, or disposal of hazardous materials in significant quantities. Generally, the exposure of persons to hazardous materials could occur through improper handling or use of hazardous materials or hazardous wastes during construction or operation of future developments, particularly by untrained personnel; an accident during transport; environmentally unsound disposal methods; or fire, explosion, or other emergencies. Therefore, no specific type of hazard associated with the use of these materials can be identified, and the likelihood of a hazard presenting a serious health or safety hazard to the public cannot be determined at this time. Also, depending on the level of senior care (i.e., skilled nursing) proposed, there may be individual oxygen tanks and related equipment on-site in multiple units.

The proposed project would be required to comply with all applicable local, state, and federal regulations during project construction and operation. The Riverside County Department of Environmental Health is the Certified Unified Program Agency (CUPA) for Riverside County and is responsible for consolidating, coordinating, and making consistent the administrative requirements, permits, inspections, and enforcement activities of state standards regarding the

3.7 HAZARDS AND HAZARDOUS MATERIALS

transportation, use, and disposal of hazardous materials in Riverside County, including Wildomar. Since the project is partially a commercial use, the project would have to comply with Riverside County's Hazardous Material Management Plans (Business Emergency Plans) that include an inventory of hazardous materials used, handled, or stored on-site. Businesses would be required to submit their plans to the CUPA, which would make the plan available to emergency response personnel.

While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to reduce risk to acceptable levels. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials and with the safety procedures mandated by applicable federal, state, and local laws and regulations. Compliance with these regulations would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with implementation of the proposed project would be **less than significant**.

Mitigation Measures

None required.

Release of Hazardous Materials (Standard of Significance 2)

Impact 3.7.2 Minor nuisance dumping could result in the accidental release of hazardous materials into the environment. Impacts are considered **potentially significant**.

Short-Term Impacts

One of the means through which human exposure to hazardous substance could occur is accidental release. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel, causing contamination of soil and water. Human exposure to contaminated soil or water can have potential health effects from a variety of factors, including the nature of the contaminant and the degree of exposure.

Construction activities associated with the proposed project could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. There is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law.

The Phase I Environmental Site Assessment conducted by Hillmann Consulting (2012; **Appendix 3.7**) concluded that no hazardous building materials are likely to occur on-site because the site is currently undeveloped. However, minor nuisance dumping, such as discarded tires, a hot tub, and other debris, were noted during site reconnaissance. Therefore, these impacts are considered **potentially significant** and require mitigation measure **MM 3.7.2** to reduce impacts to levels less than significant.

Long-Term Operational Impacts

Accidental releases of hazardous materials are those releases that are unforeseen or that result from unforeseen circumstances, while reasonably foreseeable upset conditions are those release or exposure events that can be anticipated and planned for. As discussed under Impact 3.7.1 above, the proposed project does not include land uses that would involve the routine transportation, use, and disposal of large amounts of hazardous materials. Therefore, the proposed project would not result in the accidental release of hazardous materials into the environment.

The proposed project would result in increased population on the project and thus could increase exposure of the public to accidental or reasonably foreseeable releases of hazardous materials off-site. However, there are no hazardous material sites within 1 mile of the project site. Furthermore, the transport, storage, and use of hazardous materials by developers, contractors, business owners, and others would be required to be in compliance with local, state, and federal regulations designed to avoid hazardous waste releases. These regulations provide a comprehensive regulatory system for handling, using, and transporting hazardous materials in a manner that protects human health and the environment. As such, both accidental and reasonably foreseeable hazardous materials releases would be expected to occur infrequently and result in minimal hazard to the public or to the environment.

The project site is in the vicinity of Interstate 15, along which hazardous materials may be transported. The federal Hazardous Materials Regulations address hazardous material transportation via classification, packaging, hazard communication, emergency response information, and training requirements. HMR emergency response requirements include initial emergency actions regarding evacuation isolation of the affected area, firefighting, leaking containers, spill containment, and first aid. These requirements would also reduce the number of persons exposed to any hazmat incidents. Furthermore, hazardous materials spills on state highways are the responsibility of the California Department of Transportation (Caltrans) and the California Highway Patrol (CHP). These agencies provide on-scene management of the spill site and coordinate with the California Environmental Health Department, California Emergency Management Agency (formerly known as the California Office of Emergency Services), and applicable local agencies. As such, accidental and reasonably foreseeable hazardous materials releases associated with the transport of hazardous materials in the vicinity of the project site would result in a **less than significant** hazard to residents of the proposed project.

Mitigation Measures

MM 3.7.2 The project applicant shall remove the trash and debris observed on-site and take it to a landfill or approved dumpsite.

Timing/Implementation: Prior to construction activities

Enforcement/Monitoring: City of Wildomar Building and Planning Departments

Proximity to Schools (Standard of Significance 3)

Impact 3.7.3 The proposed project would not pose a risk to nearby schools or proposed school facilities. Therefore, **no impacts** would occur.

3.7 HAZARDS AND HAZARDOUS MATERIALS

The project site is not located within one-quarter mile of an existing or proposed school. Thus, **no impacts** would occur in this regard.

Mitigation Measures

None required.

Hazardous Materials Sites (Standard of Significance 4)

Impact 3.7.4 The project is not located on a site included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. Therefore, **no impacts** would occur.

A search of government hazardous materials databases determined that no reported hazardous materials sites are located on the project site (see **Appendix 3.7**). Thus, **no impacts** would occur in this regard.

Mitigation Measures

None required.

Hazards Associated with Emergency Response (Standard of Significance 5)

Impact 3.7.5 The proposed project site would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be **less than significant**.

The Local Hazard Mitigation Plan (LHMP) identifies the City's emergency planning, organization, and response policies and procedures. The LHMP provides guidance for the City's response to extraordinary emergency situations associated with natural and man-made disasters. Additionally, Wildomar Municipal Code Section 16.08.020 regulates street design standards to ensure that subdivisions located within high fire hazard areas have adequate alternate or secondary access roads. Further, Section 16.08.040 regulates subdivision street design to ensure that street grades in the city are more compatible with existing terrain; unless approved by the Transportation and Fire departments, street grades may not exceed 16 percent. These provisions reduce risks associated with inadequate access by emergency responders. Therefore, implementation of the proposed project would not impair the City's ability to implement its emergency response plan or utilize its emergency evacuation routes. Therefore, impacts would be **less than significant**.

Mitigation Measures

None required.

Hazards Associated with Wildland Fires (Standard of Significance 6)

Impact 3.7.6 The proposed project would not expose people or structures to risks associated with wildland fires. A **less than significant** impact would occur.

The State Responsibility Area Fire Prevention Fee was enacted following the signing of Assembly Bill X1 29 in July 2011. The law approved the new annual Fire Prevention Fee to pay for fire prevention services within the State Responsibility Area. The fee is applied to all habitable

structures and funds a variety of important fire prevention services in the State Responsibility Area. Such activities include fuel reduction activities that lessen risk of wildfire to communities and evacuation routes. Other activities include defensible space inspections, fire prevention engineering, emergency evacuation planning, fire prevention education, fire hazard severity mapping, implementation of the state and local fire plans, and fire-related law enforcement activities such as arson investigation.

In November 2007, Cal Fire adopted FHSZ maps for State Responsibility Areas. The eastern and western portions of Wildomar, including the project site, have been designated VHFHS zones. VHFHS zones are determined by the Director of Cal Fire and are those properties that are not deemed to be a State Responsibility Area pursuant to Public Resources Code Sections 4125 et seq. Identification of a VHFHS zone is based on consistent statewide criteria and on the severity of the fire hazard that is expected to prevail in those areas. VHFHS zones are based on fuel loading, slope, fire weather, and other relevant factors. Cal Fire classifies real property in accordance with whether a very high fire hazard is expected to prevail in those areas so that public officials can identify measures that will retard the rate of spread and reduce the potential intensity of uncontrolled fires which threaten to destroy resources, life, or property and to require that those measures be implemented.

Development on the project site would be subject to compliance with the 2013 California Building Code (or the most current version) and the 2013 Edition of the California Fire Code (Part 9 of Title 24 of the California Code of Regulations). Chapter 49 of the Fire Code provides specific requirements for wildfire-urban interface areas that include, but are not limited to, providing defensible space and hazardous vegetation and fuel management. Wildomar is covered under the Riverside County Operational Area Emergency Operations Plan (2006) and the Riverside County Operation Area Multi-Jurisdictional Local Hazard Mitigation Plan (2012). These plans provide guidance to effectively respond to any emergency, including wildfires. In addition, all proposed construction would be required to meet minimum standards for fire safety. Implementation of these plans and policies in conjunction with compliance with the Fire Code would minimize risk of loss due to wildfires.

In consideration of the existing emergency plans, the categorization of the project site as being located with a VHFHS zone will not result in any significant exposure of individuals or structures to the threat of wildfire. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

3.7.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for hazards associated with the proposed project generally consists of existing and future uses in Wildomar in the vicinity of the project site. In particular, this cumulative setting condition includes the proposed and approved projects identified in **Appendix 3.11-A**. Cumulative impacts associated with hazardous materials and human health risks from increased development may include, but are not limited to, impacts on transportation, air quality, hydrology and water quality, and biological resources. The cumulative impacts associated with these potentially affected resources are analyzed in the applicable sections of this Draft EIR.

3.7 HAZARDS AND HAZARDOUS MATERIALS

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Risk of Exposure to Hazardous Materials

Impact 3.7.7 Implementation of the proposed project in addition to cumulative development in the surrounding region would not result in cumulative hazardous risk impacts. This is considered a **less than cumulatively considerable** impact.

Implementation of the proposed project would result in potential short-term impacts during construction activities associated with exposure to hazards such as potential contaminated soils. However, hazards and hazardous materials impacts associated with the project would be site-specific and would not contribute to cumulative hazardous impacts. Cumulative development in the region is not anticipated to result in significant hazards or hazardous materials impacts to the project site.

As described in this section, with implementation of mitigation measure **MM 3.7.2** and adherence to existing regulations, the proposed project would not contribute to an increase in the potential for exposure to hazards associated with soil contamination or potential risk associated with use, storage, and transportation of hazardous materials as a result of current or past land uses. The proposed project will not combine with any planned growth in the area to form a hazards impact greater or more significant than the project impact alone. Therefore, the cumulative hazards impacts are considered **less than cumulatively considerable**.

Mitigation Measures

None required.

REFERENCES

- DTSC (California Department of Toxic Substances Control). 2007. Human and Ecological Risk Division. <http://www.dtsc.ca.gov/AssessingRisk/index.cfm#HERD>.
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3.7 HAZARDS AND HAZARDOUS MATERIALS

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3.8 HYDROLOGY AND WATER QUALITY

3.8 HYDROLOGY AND WATER QUALITY

This section describes surface water and groundwater features for the proposed project site and relevant surrounding areas and addresses potential issues associated with drainage, erosion, and flooding associated with increased stormwater runoff and water quality. This section is based on the Preliminary Hydrology and Hydraulics Study for the Prielipp Road Project prepared by JLC Engineering & Consulting, Inc. (**Appendix 3.8**).

3.8.1 EXISTING SETTING

CLIMATE AND PRECIPITATION

Wildomar has hot, dry summers and cooler, wetter winters. Average annual precipitation in the region ranges from 10 to 13 inches per year in the inland alluvial valleys, reaching 36 inches or more in the San Bernardino and San Jacinto mountains. Most of the precipitation in the region occurs between November and March in the form of rain, with variable amounts of snow in the higher elevations. The climatological cycle of the region results in high surface water flows in the spring and early summer followed by low flows during the dry season. Winter and spring floods generated by storms are not uncommon in wet years (Cities and County of Riverside 2014).

REGIONAL HYDROLOGY

Riverside County incorporates four major watershed areas in which river systems, lakes and reservoirs, and natural drainage areas are located.

Specifically, the project site is located in the Santa Margarita River watershed, which encompasses approximately 750 square miles in northern San Diego and southwestern Riverside counties. The upper watershed contains a network of streams dominated by Temecula and Murrieta creeks, which originate in the Palomar Range and the low, rolling hills that comprise most of the basin, respectively. The Santa Margarita River is formed by the confluence of Murrieta and Temecula creeks in the southwestern portion of Riverside County near Temecula. Upon its formation, the main stem of the river flows into Temecula Gorge and crosses the San Diego County line just north of Fallbrook. It then flows through the coastal plain encompassing portions of Camp Pendleton before discharging into the Pacific Ocean through the Santa Margarita Estuary (County of San Diego 2005).

The project site is in the Murrieta Basin, which falls within the Temecula-Murrieta Management Area (County of San Diego 2005).

PROJECT SITE HYDROLOGY

The project site is approximately 20 acres and currently undeveloped. The topographic gradient is relatively flat, sloping slightly to the southwest. One ephemeral drainage bisects the site, meandering north to south for approximately 1,950 linear feet. The drainage is completely unvegetated and exhibits ephemeral flow from headwaters commencing in the foothills located approximately 1.5 miles north of the project. The drainage is in the Santa Margarita River watershed and ultimately conveys runoff into an unnamed tributary, which conveys it to Murrieta Creek approximately 1.6 miles southwest of the project site. No wetlands or other special aquatic sites occur on the project site.

The Elsinore Groundwater Basin, which is in the South Coast Hydrologic Region (DWR 2006), underlies the project site. The basin adjoins the Temecula Valley Groundwater Basin on the southeast at a low surface drainage divide. Groundwater is estimated to flow to the southwest

3.8 HYDROLOGY AND WATER QUALITY

(JLC 2014a). Groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations (JLC 2014a).

FLOODING

According to Flood Insurance Rate Map (FIRM) Panel 06065C2705G, published by the Federal Emergency Management Agency (FEMA), for Riverside County dated August 28, 2008, the project site is designated as Zone X (FEMA 2014). Zone X is defined by FEMA as an area of minimum flood hazard, usually outside the limits of the 100-year and 500-year floods. FIRM panels are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than 1 foot or drainage areas less than 1 square mile.

WATER QUALITY

Surface Water

Section 303(d) of the federal Clean Water Act requires states to identify the waters of the State that do not meet the designated beneficial uses and to develop total maximum daily loads (TMDLs) for such waters, with oversight by the US Environmental Protection Agency (EPA). These waters are commonly referred to as impaired. A TMDL is a quantifiable assessment of potential water quality issues, contributing sources, and load reductions or control actions needed to restore or protect bodies of water. TMDLs are discussed further in the Regulatory Framework subsection below. Five of the six receiving waters in Wildomar are included on the 2010 Clean Water Act Section 303(d) List of Water Quality Limited Segments requiring TMDL. **Table 3.8-1** details the pollutants that are impairing the water bodies and the status of the TMDLs.

As previously described, the on-site drainage ultimately conveys runoff to Murrieta Creek, which is approximately 1.6 miles southwest of the project site.

**TABLE 3.8-1
RECEIVING WATERS FOR URBAN RUNOFF – SANTA MARGARITA RIVER WATERSHED**

Receiving Water	303(d) List Impairments	TMDL Status
Murrieta Creek	Chlorpyrifos	TMDL needed
	Copper, Iron, Manganese	TMDL needed
	Nitrogen	TMDL needed
	Phosphorus	TMDL needed
	Toxicity	TMDL needed
Santa Margarita River (Upper)	Phosphorus	TMDL needed
	Toxicity	TMDL needed
Santa Margarita Lagoon	Eutrophic	TMDL needed

Source: SWRCB 2013

Groundwater

The groundwater in the Elsinore Groundwater Basin is generally of good to fair quality, with total dissolved solid (TDS) concentrations ranging from 250 milligrams per liter (mg/L) in the Back Basin area east of Lake Elsinore to about 600 mg/L in the northwest part of the basin (MWD 2007).

The principal recharge of the basin is from infiltration of stream flow through alluvial fan deposits near the edges of the basin and through gravel deposits along the course of the San Jacinto River. Other contributing sources include infiltration from unlined channels overlying the basin, underflow from saturated alluvium and fractures in the surrounding bedrock mountains and hills, and spreading of water in recharge basins (DWR 2006).

Groundwater levels in the Elsinore Groundwater Basin declined more than 100 feet between 1927 and 1950 (DWR 2006). A hydrograph from one well shows that the water level declined about 110 feet in the southern part of the basin from 1967 through 1985. However, a hydrograph from a well in the northern part of the basin shows a rise in water level of about 65 feet from 1963 through 1980. Under natural conditions, groundwater should flow generally toward Lake Elsinore; however, because faults cutting the sediments impede groundwater movement, groundwater flow is predominantly contained in fault blocks in the basin (DWR 2006).

3.8.2 REGULATORY FRAMEWORK

FEDERAL

Clean Water Act

The federal Clean Water Act (CWA) gives states the primary responsibility for protecting and restoring water quality. In California, the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) are the agencies with primary responsibility for implementing federal CWA requirements, including developing and implementing programs to achieve water quality standards. Water quality standards include designated beneficial uses of water bodies, criteria or objectives (numeric or narrative) which are protective of those beneficial uses, and policies to limit the degradation of water bodies. The project site is located in a portion of the state that is regulated by the San Diego Regional Water Quality Control Board (SDRWQCB), and the water quality standards for the project site are contained in the Water Quality Control Plan for the San Diego Basin (Basin Plan) (SDRWQCB 1994).

Sections 401 and 404 of the Clean Water Act

Sections 401 and 404 of the federal Clean Water Act are administered through the Regulatory Program of the US Army Corps of Engineers (USACE) and regulate the water quality of all discharges of fill or dredged material into waters of the United States, including wetlands and intermittent stream channels. Section 401, Title 33, Section 1341 of the Clean Water Act sets forth water quality certification requirements for any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into the navigable waters.

Section 404, Title 33, Section 1344 of the CWA in part authorizes the USACE to:

- Set requirements and standards pertaining to such discharges: subparagraph (e);

3.8 HYDROLOGY AND WATER QUALITY

- Issue permits “for the discharge of dredged or fill material into the navigable waters at specified disposal sites:” subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if “the discharge of such materials into such area would have an unacceptable, adverse effect on municipal water supplies and fishery areas:” subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual state or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such state or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain federal or state projects from regulation under this section: subparagraph (r); and
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).

National Pollutant Discharge Elimination System

As authorized by Section 402(p) of the CWA, the National Pollutant Discharge Elimination System (NPDES) Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The State Water Resources Control Board issues NPDES permits to cities and counties through the RWQCBs. It is the responsibility of the RWQCBs to preserve and enhance the quality of the state’s waters through the development of water quality control plans and the issuance of waste discharge requirements. Waste discharge requirements for discharges to surface waters also serve as NPDES permits.

General Construction Activity Storm Water Permits and Stormwater Pollution Prevention Plans

In accordance with NPDES regulations, the SWRCB has issued a Statewide General Permit (Water Quality No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ) for construction activities in the state. The Construction General Permit (General Permit) is implemented and enforced by the RWQCBs. The General Permit applies to any construction activity affecting 1 acre or more and requires those activities to minimize the potential effects of construction runoff on receiving water quality. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ.

General Permit applicants are required to submit to the appropriate regional board Permit Registration Documents for the project, which include a Notice of Intent, a risk assessment, a site map, a signed certification statement, an annual fee, and a stormwater pollution prevention plan (SWPPP). The permit program is risk based wherein a project’s risk is based on the project’s potential to cause sedimentation and the risk of such sedimentation on the receiving waters. A project’s risk determines its water quality control requirements, ranging from Risk Level 1, which consists of only narrative effluent standards, implementation of best management practices (BMPs), and visual monitoring, to Risk Level 3, which consists of numeric effluent limitations, additional sediment control measures, and receiving water monitoring. Additional requirements include compliance with post-construction standards focusing on low impact development

(LID), preparation of rain event action plans, increased reporting requirements, and specific certification requirements for certain project personnel.

The SWPPP must include implementing best management practices to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges. Examples of typical construction best management practices included in SWPPPs include, but are not limited to:

- Using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils.
- Storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water.
- Developing and implementing a spill prevention and cleanup plan.
- Installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters.

Total Maximum Daily Loads

Under CWA Section 303(d) and California's Porter-Cologne Water Quality Control Act of 1969, the State of California is required to establish beneficial uses of state waters and to adopt water quality standards to protect those beneficial uses. Section 303(d) establishes the total maximum daily load (TMDL) process to assist in guiding the application of state water quality standards, requiring the states to identify waters whose water quality is "impaired" (affected by the presence of pollutants or contaminants) and to establish a TMDL, or the maximum quantity of a particular contaminant that a water body can assimilate without experiencing adverse effects on the beneficial use identified. The establishment of TMDLs is generally a stakeholder-driven process that involves investigation of sources and their loading (pollution input), estimation of load allocations, and identification of an implementation plan and schedule. Where stakeholder processes are not effective, total maximum daily loads can be established by the RWQCBs or the EPA. TMDLs are adopted as amendments to the Basin Plan.

As previously stated, there is a drainage feature on-site accommodating ephemeral flow from headwaters commencing in the foothills that ultimately drains into an unnamed tributary, which in turn drains into Murrieta Creek, a Section 303(d) listed impaired waterway, approximately 1.6 miles southwest of the project site. A TMDL has not yet been established for this waterway.

STATE

Porter-Cologne Water Quality Control Act

In 1969, the California legislature enacted the Porter-Cologne Water Quality Control Act to preserve, enhance, and restore the quality of the state's water resources. The CWA and the Porter-Cologne Water Quality Control Act are similar in many ways, with the fundamental purpose of both laws being to protect the beneficial uses of water. An important distinction between the two is that the Porter-Cologne Water Quality Control Act addresses both groundwater and surface water, while the CWA addresses surface water only.

The Porter-Cologne Water Quality Control Act established the SWRCB and the nine RWQCBs as the principal state agencies with the responsibility for controlling water quality in California.

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Under the act, water quality policy is established, water quality standards are enforced for both surface water and groundwater, and the discharges of pollutants from point and nonpoint sources are regulated. The act authorizes the SWRCB to establish water quality principles and guidelines for long-range resource planning, including groundwater and surface water management programs and control and use of recycled water.

State Water Resources Control Board

The five-member SWRCB allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine Regional Water Quality Control Boards located in the major watersheds of the state. The joint authority of water allocation and water quality protection enables the SWRCB to provide comprehensive protection for California's waters (SWRCB 2013). The SWRCB is responsible for implementing the Clean Water Act and issues NPDES permits to cities and counties through Regional Water Quality Control Boards.

REGIONAL

The project site is within the jurisdictional boundary of the San Diego Regional Water Quality Control Board. As a result, the proposed project site is regulated by the SDRWQCB and is required to comply with the SDRWQCB MS4 Permit (NPDES No. CAS0109266, Order No. R9-2013-0001).

San Diego Regional Water Quality Control Board

The SDRWQCB has responsibility for controlling water quality in San Diego County, Imperial County, and parts of Riverside County. The water quality standards for water bodies in the San Diego region are contained in the Water Quality Control Plan for the San Diego Basin (SDRWQCB 1994).

Water Quality Control Plan for the San Diego Basin (Basin Plan)

The Water Quality Control Plan for the San Diego Basin designates beneficial uses for water bodies in the San Diego region and establishes water quality objectives and implementation plans to protect those beneficial uses. Specifically, the Basin Plan (1) designates beneficial uses for surface water and groundwater; (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy; (3) describes implementation programs to protect the beneficial uses of all waters in the region; and (4) describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan.

The SDRWQCB issues permits, called waste discharge requirements and master reclamation permits, which require that waste and reclaimed water not be discharged in a manner that would cause an exceedance of applicable water quality objectives or adversely affect beneficial uses designated in the Basin Plan.¹ The SDRWQCB enforces these permits through a variety of administrative means.

¹ The city lies within two different watersheds and therefore is subject to the jurisdiction of two different regional boards: Santa Ana (Lake Elsinore) and San Diego (Santa Margarita River). This would require the City to administer two separate MS4 permits, which would add considerably to the cost and burden of development. The City requested to be governed by one MS4 permit to reduce costs. The City and the Regional Boards agreed that the City would be governed by the MS4 permit issued by the San Diego Regional Water Quality Control Board for the Santa Margarita River

Waste Discharge Requirements for San Diego County MS4s

Waste Discharge Requirements for Discharges from the MS4s (Order No. R9-2013-0001)

The San Diego Regional Water Quality Control Board adopted Order No. R9-2013-0001, National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) draining the watersheds in the San Diego region in 2013. The Regional MS4 Permit regulates MS4 discharges to inland surface waters, bays and estuaries, and coastal waters throughout the three counties in the San Diego region.

LOCAL

City of Wildomar Municipal Code

The City's Municipal Code establishes the following requirements that pertain to hydrology and water quality:

- Title 13, Chapter 13.12, Stormwater/Urban Runoff Management and Discharge Controls Ordinance, establishes requirements for stormwater and non-stormwater quality discharge and control. The chapter prohibits discharges of pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards. The chapter codifies various federal and state requirements for stormwater pollution prevention and requires compliance with these statutes and regulations. The purpose of this chapter is to reduce pollutants in stormwater discharges to the maximum extent practicable, regulate illicit connections and discharges to the storm drain system, and regulate non-stormwater discharges to the storm drain system. The chapter requires new development projects to control stormwater runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the water via best management practices (BMPs) that may, among other things, require new developments or redevelopments to increase permeable areas, direct runoff to permeable areas, and maximize stormwater storage for reuse.
- Title 15, Chapter 15.96 prohibits any development within floodways and also establishes requirements for construction in floodplains. This chapter codifies federal requirements for development within floodplains and requires compliance with those regulations.

3.8.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. A project is considered to have significant impacts if implementation of the project will:

- 1) Violate any water quality standards or waste discharge requirements.

watershed. So, no matter where a project is located within the city, it must comply with the MS4 permit issued by the San Diego Regional Board for the Santa Margarita River watershed.

3.8 HYDROLOGY AND WATER QUALITY

- 2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- 3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- 4) 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.
- 5) Otherwise substantially degrade water quality.
- 6) 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.
- 7) Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- 8) Expose people or structures to a significant loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
- 9) Inundation by seiche, tsunami, or mudflow.

The proposed project site is not within a groundwater basin management area. No impact would occur, and this issue (Standard of Significance 2) will not be addressed further in this DEIR.

The project site is in a FEMA-designated flood hazard Zone X, which indicates that the site is subject to a minimal risk of being flooded (FEMA 2014). No impact will occur, and these issues (Standard of Significance 6 and 7) will not be addressed further in this Draft EIR.

Riverside County identifies dam inundation hazard areas throughout the county. A review of records maintained at the California Office of Emergency Services provided potential failure inundation maps for 23 dams affecting Riverside County; these maps were compiled into geographic information system (GIS) digital coverage of potential dam inundation zones. The county's dam inundation zones are identified in Figure S-10 of the Wildomar General Plan. According to Figure S-10, the project site is not in any dam inundation hazard zones. In addition, the project is not in the vicinity of any levees. Therefore, no impact would occur, and this issue (Standard of Significance 8) will not be addressed further in this Draft EIR.

Based on the elevation of the project site above sea level and the lack of nearby enclosed bodies of water, the potential for inundation by seiche, tsunami, or mudflow is nonexistent. Therefore, no impact would occur, and this issue (Standard of Significance 9) will not be addressed further in this Draft EIR.

METHODOLOGY

The primary sources for this section of the Draft EIR include the Preliminary Hydrology and Hydraulics Study (2014), Preliminary Water Quality Management Plan (2014), FEMA flood hazard

mapping, City of Wildomar General Plan (2008), NPDES No. Order No R9-2013-0001, Riverside County Drainage Area Management Plan (2014), and the Santa Margarita River Watershed Management Plan (2005).

Drainage

JLC Engineering & Consulting, Inc., prepared the Preliminary Hydrology and Hydraulics Study (2014a) (see **Appendix 3.8**). The study was prepared to determine anticipated changes to the existing drainage patterns on the site as well as the adequacy of the proposed drainage system in terms of capacity and water quality treatment.

Water Quality

The project's Preliminary Hydrology and Hydraulics Study and Preliminary Water Quality Management Plan were reviewed to determine potential sources and types of pollutants that could be generated by project construction and/or operation. The SWRCB statewide permit and SDRWOCB permit requirements were reviewed to determine whether water quality would be sufficiently protected or if further mitigation would be required.

IMPACTS AND MITIGATION MEASURES

Degrade Water Quality or Violate Water Quality Standards (Standards of Significance 1 and 5)

Impact 3.8.1 Construction and operation of the proposed project could result in erosion or a degradation of downstream surface water and groundwater resources. This impact would be **potentially significant**.

Urban runoff (both dry and wet weather) discharges into storm drains and, in most cases, flows directly to creeks, rivers, lakes, and the ocean. Polluted runoff can have harmful effects on drinking water, recreational water, and wildlife. Urban runoff pollution includes a wide array of environmental, chemical, and biological compounds from both point and nonpoint sources. In the urban environment, stormwater characteristics depend on site conditions (e.g., land use, impervious cover, pollution prevention, types and amounts of best management practices), rain events (duration, amount of rainfall, intensity, and time between events), soil type and particle sizes, multiple chemical conditions, the amount of vehicular traffic, and atmospheric deposition. Major pollutants typically found in runoff from urban areas include sediments, nutrients, oxygen-demanding substances, heavy metals, petroleum hydrocarbons, pathogens, and bacteria.

Urban runoff can be divided into two categories: dry and wet weather urban runoff.

- Dry weather urban runoff occurs when there is no precipitation-generated runoff. Typical sources include landscape irrigation runoff, driveway and sidewalk washing, noncommercial vehicle washing, groundwater seepage, fire flow, potable water line operations and maintenance discharges, and permitted or illegal non-stormwater discharges.
- Wet weather urban runoff refers collectively to nonpoint source discharges that result from precipitation events. Wet weather runoff includes stormwater runoff. Stormwater discharges are generated by runoff from land and impervious areas such as building rooftops and paved streets and parking lots.

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Wet and dry weather runoff typically contains similar pollutants of concern. However, except for the first flush concentrations following a long period between rainfall events, the concentration levels found in wet weather flows are typically lower than levels found in dry weather flows because the larger wet weather flows dilute the amount of pollution in runoff waters. Most urban stormwater discharges are considered nonpoint sources and are regulated by an NPDES Municipal General Permit or Construction General Permit.

A net effect of development can be to increase pollutant export over naturally occurring conditions to adjacent streams and also on the downstream receiving waters. However, an important consideration in evaluating stormwater quality from the project is to assess whether it impairs the beneficial use of the receiving waters. Receiving waters can assimilate a limited quantity of various constituent elements; however, there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. For this evaluation, impacts to stormwater quality would be considered significant if the project did not attempt to address stormwater pollution to the maximum extent practicable.

Short-Term Construction

During construction activities, erosion potential and the possibility of water quality impacts are always present and occur when protective vegetative cover is removed and soils are disturbed. Construction activities can result in sediment runoff rates that greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. In addition to sediment, stormwater flowing over a construction site can carry various pollutants such as nutrients, bacteria and viruses, oil and grease, heavy metals, organics, pesticides, gross pollutants, and miscellaneous waste into receiving waters. These pollutants can originate from soil disturbances, construction equipment, building materials, and workers. To minimize the potential for contamination of stormwater during construction, a stormwater pollution prevention plan (SWPPP) is required as part of the grading permit submittal package. The SWPPP will incorporate a series of specific measures that will be included in the construction process to address erosion, accidental spills, and the quality of stormwater runoff.

The best management practices that must be implemented as part of a SWPPP can be grouped into two major categories: (1) erosion and sediment control BMPs and (2) non-stormwater management and materials management BMPs. Erosion and sediment control BMPs fall into four main subcategories:

- Erosion controls
- Sediment controls
- Wind erosion controls
- Tracking controls

Erosion controls include practices to stabilize soil, to protect the soil in its existing location, and to prevent soil particles from migrating. Examples of erosion control BMPs are preserving existing vegetation, mulching, and hydroseeding. Sediment controls are practices to collect soil particles after they have migrated, but before the sediment leaves the site. Examples of sediment control BMPs are street sweeping, fiber rolls, silt fencing, gravel bags, sand bags, storm drain inlet protection, sediment traps, and detention basins. Wind erosion controls prevent soil particles from leaving the site in the air. Examples of wind erosion control BMPs include applying water or other dust suppressants to exposed soils on the site. Tracking controls prevent sediment from being tracked off site via vehicles leaving the site to the extent practicable. A stabilized

construction entrance not only limits the access points to the construction site but also functions to partially remove sediment from vehicles prior to leaving the site.

Non-stormwater management and material management controls reduce non-sediment-related pollutants from potentially leaving the construction site to the extent practicable. The Construction General Permit prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges (such as irrigation and pipe flushing and testing). Non-stormwater BMPs tend to be management practices with the purpose of preventing stormwater from coming into contact with potential pollutants. Examples of non-stormwater BMPs include preventing illicit discharges and implementing good practices for vehicle and equipment maintenance, cleaning, and fueling operations, such as using drip pans under vehicles. Waste and materials management BMPs include implementing practices and procedures to prevent pollution from materials used on construction sites. Examples of materials management BMPs include:

- Good housekeeping activities, such as storing materials covered and elevated off the ground in a central location.
- Securely locating portable toilets away from the storm drainage system and performing routine maintenance.
- Providing a central location for concrete washout and performing routine maintenance.
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management.
- The Construction General Permit also requires that construction sites be inspected before and after storm events and every 24 hours during extended storm events. The purpose of the inspections is to identify maintenance requirements for the BMPs and to determine the effectiveness of the BMPs that are being implemented. The SWPPP is a “living document” and as such can be modified as construction activities progress. Additional requirements include compliance with post-construction standards focusing on low impact development (LID) and preparation of rain event action plans.
- The SWRCB has also issued a Statewide General Permit (Water Quality Order R5-2008-0081, NPDES No. CAG995001) for dewatering and other low-threat discharges to surface waters in the state. Should construction of a project require dewatering, the project applicant would be required to submit a Notice of Intent, as well as a Best Management Practices Plan, to comply with the general permit. The BMP Plan would include disposal practices to ensure compliance with the general permit, such as the use of sediment basins or traps, dewatering tanks, or gravity or pressurized bag filters. Monitoring and reporting would also be performed to ensure compliance with the permit. Mitigation measure **MM 3.8.1** requires preparation of a stormwater pollution prevention plan and indicates the types of BMPs that are typically required as part of the permit.

Project Operation

The Preliminary Hydrology and Hydraulics Study (**Appendix 3.8**) was prepared in order to determine the required improvements to treat for water quality purposes and mitigate for increased runoff. Following on-site treatment at the proposed project BMPs, described below, runoff will drain to an on-site drainage which ultimately conveys runoff to Murrieta Creek, approximately 1.6 miles southwest of the project site, via existing natural channels and permitted MS4 facilities. Murrieta Creek is a Section 303(d) listed impaired waterway as detailed in **Table 3.8-1**. Pollutants typically associated with urban and suburban development that would contribute to the Section 303(d) impaired water bodies are shown in **Table 3.8-2**.

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**TABLE 3.8-2
EXPECTED URBAN RUNOFF POLLUTANTS AND 303(D) IMPAIRMENTS**

Pollutant		Expected or Potential Source	303(d) Listing
Potential	Not Potential		
Bacterial indicators		Pets and wildlife, sewer overflows	Yes
	Metals		Yes
Nutrients		Fertilizer, leaf and grass clippings, landscaped areas	Yes
Pesticides		Landscaped areas	Yes
	Toxic Organic Compounds		No
Sediments		Streets	Yes
Trash and Debris		Residential developments, streets, parking areas	No
Oil and Grease		Street and parking areas	No
Toxicity (Toxic Pollutants)		Landscaped areas (pesticides)	Yes

Source: JLC 2014b

The proposed project will construct two sand filter basins and one subsurface system for water quality treatment purposes and to mitigate flows of increased stormwater runoff. These facilities will represent the operational BMPs of the proposed project. Area A drains into sand filter basin "A" for water quality treatment and mitigation of runoff. Area B1 drains to sand filter basin "B" for water quality treatment, and then is conveyed to subsurface basin "C" for mitigation of increased runoff. Area B2 is treated for water quality purposes and mitigated for increased runoff in subsurface system "C".

The required water quality volume for Areas A, B1, and B2 were determined using the Santa Margarita Watershed BMP Design Volume V_{BMP} spreadsheet. The 85th percentile, 24-hour rainfall depth of 0.70 inch was obtained from the Isohyetal Map included in **Appendix 3.8**. To establish the capacities of the project BMPs, the impervious fraction values included in **Table 3.8-3** were used. The results for the required water quality volume were determined and are also included in **Table 3.8-3**.

**TABLE 3.8-3
IMPERVIOUS FRACTION VALUES AND REQUIRED WQ VOLUME**

Area Designation	Corresponding BMP Designation	Acres	Corresponding Effective Impervious Fraction	Pervious Fraction	Corresponding Effective Impervious Fraction	Required Water Quality Volume (ft ³)
A	Sand Filter Basin "A"	12.9	1.0	0.31	0.1	15,943
B1	Sand Filter Basin "B"	2.2	1.0	0.36	0.1	3,512
B2	Subsurface Basin "C"	1.9	1.0	0.16	0.1	4,207

Source: JLC 2014a

The required mitigation volume was determined by subtracting the pre-project unit hydrograph volume from the post-project unit hydrograph volume for Areas A and B for the 2-year, 24-hour and 10-year, 24-hour storm durations. These flow and volume rate summaries are provided in the hydrology study in **Appendix 3.8**.

Sand filter basin "A" would be located in the southwesterly corner of the project site and collects flows from that area. The sand filter basin would be able to store the required water volume of 15,943 cubic feet and the required mitigation volume of 61,111 cubic feet, for a total required volume of 77,054 cubic feet at 1 foot below the top of the sand filter basin, which provides 1 foot of freeboard (JLC 2014a). Sand filter basin "B" would be located within the landscaped area of the senior living development on the north side of the proposed building. The sand filter basin would be able to store the required water volume of 3,512 cubic feet (JLC 2014a). Sand filter basin "B" has a total storage volume of 3,695 cubic feet at 1 foot below the top of the sand filter basin, which provides 1 foot of freeboard (JLC 2014a). Sand filter basin "B" is used for water quality treatment only. Flows in excess of the water quality volume will be conveyed to Subsurface basin "C". Subsurface basin "C" would be located within the street and parking area of the senior living development adjacent to Prielipp Road. The subsurface basin would be able to store the water volume of 4,207 cubic feet and the total required mitigation volume of 21,819 cubic feet, for a total volume of 26,026 cubic feet (JLC 2014a).

During the preliminary stage, it is anticipated that this system will function via filtration. The storage volume in the subsurface system accounts for the storage in 48-inch pipes and for 40 percent storage in the surrounding gravel layer. A total of 1,570 linear feet of 48-inch pipe and surrounding gravel is proposed, resulting in a total of 34,430 cubic feet of storage volume available. The gravel is assumed to surround the 48-inch pipe with 1 foot on both sides and 2 feet above the pipe (JLC 2014a).

Based on these calculations, the proposed storm drain alignments will adequately convey the peak 100-year flow rates. The proposed sand filter basins and subsurface basin provide sufficient volume to treat for water quality purposes and mitigate for increased runoff. The untreated on-site flows will not commingle with the off-site flows (JLC 2014a).

Water Quality

A Preliminary Water Quality Management Plan (WQMP) (JLC 2014b) was prepared for the proposed project (**Appendix 3.8**). A subsequent final WQMP will be prepared for the project if it is approved and will replace the preliminary WQMP. The WQMP identifies a series of specific best management practices to be incorporated into the design to achieve four goals: (1) minimize urban runoff; (2) minimize impervious footprint; (3) conserve natural areas; and (4) minimize directly connected impervious areas. Measures for design of the project in the preliminary WQMP include those listed below.

Site Design Concept 1 – Minimize Urban Runoff

- Maximize the permeable area.
- Incorporate landscaped buffer areas between sidewalks and streets.
- Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought-tolerant trees and large shrubs.
- Use natural drainage systems.

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- Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
- Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
- Other comparable and equally effective site design concepts as approved by the committee.

Site Design Concept 2 – Minimize Impervious Footprint

- Maximize the permeable area.
- Construct streets, sidewalks, and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
- Reduce widths of street where off-street parking is available.
- Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.
- Other comparable and equally effective site design concepts as approved by the committee.

Site Design Concept 3 – Conserve Natural Areas

- Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought-tolerant trees and large shrubs.
- Use natural drainage systems.
- Other comparable and equally effective site design concepts as approved by the committee.

Site Design Concept 4 – Minimize Directly Connected Impervious Areas

- Residential and commercial sites must be designed to contain and infiltrate roof runoff or direct roof runoff to vegetative swales or buffer areas, where feasible.
- Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.
- Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.
- Other comparable and equally effective site design concepts as approved by the committee.

Non-Structural Source Control BMPs

- Education for property owners, tenants, and occupants.
- Activity restrictions.
- Irrigation system and landscape maintenance.
- Common area litter control.
- Drainage facility inspection and maintenance.

Structural Source Control BMPs

- Landscape and irrigation system design.
- Protect slopes and channels.

Additional BMPs will be incorporated into the project where feasible during final engineering. The project would also be required to implement BMPs to increase permeable areas and to direct runoff to permeable areas. The following mitigation is required.

Mitigation Measures

MM 3.8.1 Prior to the approval of the grading permit for future development on the project site, the project applicant shall be required to prepare a stormwater pollution prevention plan (SWPPP) consistent with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ), which is to be administered through all phases of grading and project construction. The SWPPP shall incorporate best management practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. The SWPPP shall be submitted to the California State Water Resources Control Board and to the City of Wildomar for review. A copy of the SWPPP must be kept accessible on the project site at all times. In addition, the project applicant will be required to submit, and obtain City approval of, a water quality management plan prior to the issuance of any building or grading permit for future development on the project site in order to comply with the Area-wide Urban Runoff Management Program. The project shall implement site design BMPs, source control BMPs, and treatment control BMPs as identified in the water quality management plan. Site design BMPs shall include, but are not limited to, landscape buffer areas, on-site ponding areas, roof and paved area runoff directed to vegetated areas, and vegetated swales. Source control BMPs shall include, but are not limited to, education, landscape maintenance, litter control, parking lot sweeping, irrigation design to prevent overspray, and covered trash storage. Treatment control BMPs shall include vegetated swales and a detention basin or an infiltration device. The project will be responsible for maintenance of the basins.

Timing/Implementation: Prior to the issuance of a grading permit

Enforcement/Monitoring: City of Wildomar Engineering Department

The project's proposed storm drain system, as well as implementation of the project's WQMP and applicable requirements, including implementation of appropriate BMPs, would remove sediment and pollutants from site runoff and minimize impacts to downstream surface water and groundwater resources. This impact would therefore be considered **less than significant**.

Alter Drainage Patterns/Increase Stormwater Runoff (Standards of Significance 3 and 4)

Impact 3.8.2 Development of the proposed project will alter the existing drainage pattern of the site and may impact stormwater runoff rates and volumes compared to existing conditions. This impact is considered **less than significant**.

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The preliminary hydrology and hydraulic study for the proposed project (see **Appendix 3.8**) determined new development associated with the proposed project would alter drainage on the currently undeveloped site and increase stormwater runoff rates and volumes by introducing 138 townhomes, a recreation area and leasing building, parking spaces, and a senior living facility.

Impact 3.8.1 discusses mitigation for increased runoff. As discussed, the project proposes two sand filter basins and one subsurface system to mitigate flows of increased stormwater runoff. Furthermore, this proposed storm drain system is designed with alignments that will adequately convey the peak 100-year flow rates (JLC 2014a). The proposed sand filter basins and subsurface basin provide sufficient volume to treat for water quality purposes and mitigate for increased runoff (JLC 2014a). This impact would therefore be considered **less than significant**.

Mitigation Measures

None required.

3.8.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for hydrology and water quality includes the Santa Margarita River watershed as described in detail in the Existing Setting subsection above.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Hydrology and Water Quality

Impact 3.8.3 The proposed project, in combination with existing, approved, proposed, and reasonably foreseeable development in the Santa Margarita River watershed, could alter drainage conditions, rates, volumes, and water quality, which could result in potential erosion, flooding, and water quality impacts within the overall watershed. This is considered a **less than cumulatively considerable** impact.

The proposed project, when considered in combination with existing, approved, proposed, and reasonably foreseeable development in the Santa Margarita River watershed, would alter cumulative drainage conditions, rates, volumes, and water quality, which could result in potential flooding and stormwater quality impacts in the overall watershed. However, as discussed in Impacts 3.8.1 and 3.8.2, the proposed project's storm drain system and implementation of a water quality management plan would reduce the project's contributions to cumulative runoff, water quality, and flooding impacts. As demonstrated by the preliminary hydrology study completed for the project, the proposed project does not increase the flow rate for the post-project conditions (JLC 2014a). As such, the project is rendered noncontributory to cumulative hydrology impacts. The proposed project includes a series of drainage basins that both reduce the velocity of runoff and serve to remove debris and contaminants from stormwater runoff. Stormwater can only enter the storm drainage lines after passing through these basins. The proposed project's contribution to cumulative water quality, runoff, and flooding impacts is considered to be **less than cumulatively considerable**.

Mitigation Measures

None required.

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3.8 HYDROLOGY AND WATER QUALITY

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3.9 NOISE

This section discusses the existing noise setting, identifies potential noise impacts associated with implementation of the proposed project, and recommends mitigation measures to address potential impacts. Specifically, this section analyzes potential noise impacts due to development of the project area relative to the existing ambient noise environment and applicable noise criteria. Noise mitigation measures are recommended where the predicted noise levels would exceed applicable noise standards. This analysis and the associated modeling were conducted by Urban Crossroads in 2015 (see **Appendix 3.9**).

3.9.1 TECHNICAL BACKGROUND

ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound is mechanical energy transmitted in the form of a wave because of a disturbance or vibration. Sound levels are described in terms of both amplitude and frequency. Amplitude is defined as the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Amplitude is interpreted by the ear as corresponding to different degrees of loudness. Laboratory measurements correlate a 10 dB increase in amplitude with a perceived doubling of loudness and establish a 3 dB change in amplitude as the minimum audible difference perceptible to the average person.

The frequency of a sound is defined as the number of fluctuations of the pressure wave per second. The unit of frequency is the Hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sound of different frequencies. For instance, the human ear is more sensitive to sound in the higher portion of this range than in the lower, and sound waves below 16 Hz or above 20,000 Hz cannot be heard at all. To approximate the sensitivity of the human ear to changes in frequency, environmental sound is usually measured in what is referred to as A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA (EPA 1971). The most common sounds vary between 40 dBA (very quiet) and 100 dBA (very loud). Normal conversation at 3 feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA, which can cause serious discomfort. Common community noise sources and associated noise levels, in dBA, are depicted in **Figure 3.9-1**.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates at a rate between 3.0 and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (EPA 1971).

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise, but are less effective than solid barriers.

3.9 NOISE

NOISE DESCRIPTORS

Environmental noise descriptors are generally based on average, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). L_{eq} represents a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. In addition, the hourly L_{eq} is the noise metric used to collect short-term noise level measurement samples and to estimate the 24-hour Community Noise Equivalent Level (CNEL). CNEL is the weighted average of the intensity of a sound with corrections for time of day and averaged over 24 hours. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure. The time of day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7 p.m. to 10 p.m. and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10 p.m. and 7 a.m. These additions are made to account for the noise-sensitive periods during the evening and night hours when sound is perceived to be louder. Common noise level descriptors are summarized in **Table 3.9-1**.

**TABLE 3.9-1
COMMON ACOUSTICAL DESCRIPTORS**

Descriptor	Definition
Energy Equivalent Noise Level (L_{eq})	The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value (in dBA) is calculated.
Minimum Noise Level (L_{min})	The minimum instantaneous noise level during a specific period of time.
Maximum Noise Level (L_{max})	The maximum instantaneous noise level during a specific period of time.
Day-Night Average Level (DNL or L_{dn})	The 24-hour L_{eq} with a 10 dBA “penalty” for noise events that occur during the noise-sensitive hours between 10:00 p.m. and 7:00 a.m. In other words, 10 dBA is “added” to noise events that occur in the nighttime hours to account for increases sensitivity to noise during these hours.
Community Noise Equivalent Level (CNEL)	The CNEL is similar to the L_{dn} described above, but with an additional 5 dBA “penalty” added to noise events that occur between the hours of 7:00 p.m. to 10:00 p.m. The calculated CNEL is typically approximately 0.5 dBA higher than the calculated L_{dn} .
Single Event Noise Level (SEL)	The level of sound accumulated over a given time interval or event. Technically, the sound exposure level is the level of the time-integrated mean square A-weighted sound for a stated time interval or event, with a reference time of one second.
Percent Exceeded Noise Level (L_n)	The level exceeded for n percent of the time. For instance, L_{10} is the level exceeded for 10% of the time. The commonly used values of n for the n -percent exceeded level, L_n , are 2, 10, 50, and 90.

Source: *Urban Crossroads 2015a*



HORIZONS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	SPEECH INTERFERENCE
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80	LOUD	
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70		
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10		
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0	VERY FAINT	

Source: Urban Crossroads

Figure 3.9.1
Typical Noise Levels

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HUMAN RESPONSE TO NOISE

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases. The acceptability of noise and the threat to public well-being are the basis for land use planning policies preventing exposure to excessive community noise levels.

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called “ambient” environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged. Regarding increases in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived by humans.
- Outside of the laboratory, a 3 dB change is considered a just-perceivable difference.
- A change in level of at least 5 dB is required before any noticeable change in community response would be expected. An increase of 5 dB is typically considered substantial.
- A 10 dB change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

A limitation of using a single noise-level increase value to evaluate noise impacts, as discussed above, is that it fails to account for pre-development noise conditions. With this in mind, the Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that take into account the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (i.e., CNEL, L_{dn}). FICON-recommended noise evaluation criteria are summarized in **Table 3.9-2**.

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TABLE 3.9-2
FICON-RECOMMENDED CRITERIA FOR
EVALUATION OF INCREASES IN AMBIENT NOISE LEVELS

Ambient Noise Level Without Project	Increase Required for Significant Impact
< 60 dB	5.0 dB, or greater
60–65 dB	3.0 dB, or greater
> 65 dB	1.5 dB, or greater

Source: FICON 2000

As depicted in **Table 3.9-2**, an increase in the noise level of 5.0, or greater, would typically be considered to result in increased levels of annoyance where existing ambient noise levels are less than 60 dB. In areas where the ambient noise level ranges from 60 to 65 dB, increased levels of annoyance would be anticipated at increases of 3 dB, or greater. Increases of 1.5 dB, or greater, could result in increased levels of annoyance in areas where the ambient noise level exceeds 65 dB. The rationale for the FICON-recommended criteria is that as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause significant increases in annoyance (FICON 2000).

EFFECTS OF NOISE ON HUMAN ACTIVITIES

The extent to which environmental noise is deemed to result in increased levels of annoyance, activity interference, and sleep disruption varies greatly from individual to individual depending on various factors, including the loudness or suddenness of the noise, the information value of the noise (e.g., aircraft overflights, child crying, fire alarm), and an individual's sleep state and sleep habits. Over time, adaptation to noise events and to increased levels of noise may also occur. In terms of land use compatibility, environmental noise is often evaluated in terms of the potential for noise events to result in increased levels of annoyance, sleep disruption, or interference with speech communication, activities, and learning. Noise-related effects on human activities are discussed in more detail below.

Speech Communication

For most noise-sensitive land uses, an interior noise level of 45 dB L_{eq} is typically identified for the protection of speech communication in order to provide for 100 percent intelligibility of speech sounds. Assuming an average 20 dB reduction in sound level between outdoors and indoors (which is an average amount of sound attenuation that assumes windows are closed), this interior noise level equates to an exterior noise level of 65 dBA L_{eq} . For outdoor voice communication, an exterior noise level of 60 dBA L_{eq} allows normal conversation at distances up to 2 meters with 95 percent sentence intelligibility (EPA 1971). Based on this information, speech interference begins to become a problem when steady noise levels reach approximately 60 to 65 dBA. Within interior noise environments, an average-hourly background noise level of 45 dBA L_{eq} is typically recommended for noise-sensitive land uses, such as educational facilities (Caltrans 2002).

Annoyance and Sleep Disruption

With regard to potential increases in annoyance, activity interference, and sleep disruption, land use compatibility determinations are typically based on the use of the cumulative noise exposure metrics (i.e., CNEL or L_{dn}). Perhaps the most comprehensive and widely accepted evaluation of the relationship between noise exposure and the extent of annoyance was one originally

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developed by Theodore J. Schultz in 1978. Schultz's research findings provided support for L_{dn} as the descriptor for environmental noise. His research identified a correlation between the cumulative noise exposure metric and individuals who were highly annoyed by transportation noise. When expressed graphically, this relationship is typically referred to as the Schultz curve. The Schultz curve indicates that approximately 13 percent of the population is highly annoyed at a noise level of 65 dBA L_{dn} . It also indicates that the percentage of people describing themselves as being highly annoyed accelerates smoothly between 55 and 70 dBA L_{dn} . A noise level of 65 dBA L_{dn} is a commonly referenced dividing point between lower and higher rates of people describing themselves as being highly annoyed (Caltrans 2002).

The Schultz curve and associated research became the basis for many of the noise criteria subsequently established for federal, state, and local entities. Most federal and California regulations and policies related to transportation noise sources establish a noise level of 65 dBA CNEL/ L_{dn} as the basic limit of acceptable noise exposure for residential and other noise-sensitive land uses. For instance, with respect to aircraft noise, both the Federal Aviation Administration (FAA) and the State of California have identified a noise level of 65 dBA L_{dn} as the dividing point between normally compatible and normally incompatible residential land use generally applied for determination of land use compatibility. For noise-sensitive land uses exposed to aircraft noise, noise levels in excess of 65 dBA CNEL/ L_{dn} are typically considered to result in a potentially significant increase in levels of annoyance (Caltrans 2002).

Allowing for an average exterior-to-interior noise reduction of 20 dB, an exterior noise level of 65 dBA CNEL/ L_{dn} would equate to an interior noise level of 45 dBA CNEL/ L_{dn} . An interior noise level of 45 dB CNEL/ L_{dn} is generally considered sufficient to protect against activity interference at most noise-sensitive land uses, including residential dwellings, and would also be sufficient to protect against sleep interference (EPA 1971). In California, the California Building Standards Code establishes a noise level of 45 dBA CNEL as the maximum acceptable interior noise level for residential uses (other than detached single-family dwellings). Use of the 45 dBA CNEL threshold is further supported by recommendations provided in the State of California Office of Planning and Research's General Plan Guidelines, which recommend an interior noise level of 45 dB CNEL/ L_{dn} as the maximum allowable interior noise level sufficient to permit "normal residential activity" (OPR 2003).

The cumulative noise exposure metric is currently the only noise metric for which there is a substantial body of research data and regulatory guidance defining the relationship between noise exposure, people's reactions, and land use compatibility. However, when evaluating environmental noise impacts involving intermittent noise events, such as aircraft overflights and train pass-bys, the use of cumulative noise metrics may not provide a thorough understanding of the resultant impact. The general public often finds it difficult to understand the relationship between intermittent noise events and cumulative noise exposure metrics. In such instances, supplemental use of other noise metrics, such as the L_{eq} or L_{max} descriptor, may be helpful as a means of increasing public understanding regarding the relationship between these metrics and the extent of the resultant noise impact (Caltrans 2002).

SOUND PROPAGATION AND ATTENUATION

Geometric Spreading

As previously stated, noise attenuates with distance from the noise source. For example, noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source, and mobile sources typically attenuate at a rate between 3.0 and 4.5 dBA per doubling of distance (EPA 1971). The ranges of attenuation can be

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explained by geometric spreading. Sound from stationary and mobile sources propagates uniformly outward in a spherical pattern, and this is referred to as cylindrical spreading. Sound levels attenuate at a certain rate for each doubling of distance depending on ground surface characteristics. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. For instance, when added to the cylindrical spreading, the excess ground attenuation for soft surfaces results in an overall attenuation rate of 4.5 decibels per doubling of distance from a mobile source and 7.5 decibels per doubling of distance from a stationary source. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or a body of water), no excess ground attenuation is assumed.

Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) from a highway due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

Noise Reduction

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in minimum 5 decibels of noise reduction. Taller barriers provide increased noise reduction.

Noise reductions afforded by building construction can vary depending on construction materials and techniques. Standard construction practices typically provide approximately 15 dBA exterior-to-interior noise reductions for building façades with windows open, and approximately 20 to 25 dBA with windows closed. With compliance with current Title 24 energy efficiency standards, which require increased building insulation and inclusion of an interior air ventilation system to allow windows on noise-impacted façades to remain closed, exterior-to-interior noise reductions typically average approximately 25 dBA. The absorptive characteristics of interior rooms, such as carpeted floors, draperies, and furniture, can result in further reductions in interior noise.

Additional noise control techniques commonly used for transportation noise sources include traffic control, such as prohibiting heavy-duty trucks and reducing speed limits along primarily affected corridors. However, an approximate 20 mile per hour reduction in speed would typically be required to achieve a noticeable decrease in noise levels. In some instances, the use of noise-reducing pavements, such as rubberized asphalt, has also been used to reduce traffic noise. However, when compared with hard site surfaces (i.e., asphalt, concrete, stone, and very hard packed earth), soft site surfaces or natural surfaces (i.e., earth and ground vegetation covers) are the most effective method used to reduce traffic-associated noise by resulting in a drop-off rate of 4.5 dBA per doubling of distance (Urban Crossroads 2015a) and thus are better at reflecting traffic-associated noise levels. Hard site surfaces typically result in a 3.0 dBA drop-off rate (Urban Crossroads 2015a).

3.9 NOISE

3.9.2 EXISTING SETTING

EXISTING NOISE ENVIRONMENT

The project is bordered by Prielipp Road to the south, future Bunny Trail to the north, and future Elizabeth Lane to the east. The topography of the project site consists of gently rolling hills and undeveloped land. As shown on **Figure 3.1-1**, the project site is vacant, and surrounding land uses include a mix of rural and suburban residential development and open space in all directions, in addition to a few commercial developments to the northeast, west, and southwest.

NOISE-SENSITIVE LAND USES

Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, outpatient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals (Urban Crossroads 2015a).

To assess the potential for short-term construction noise impacts, the nine receiver locations shown on **Figure 3.9-2** were identified as representative locations for analysis. Sensitive receivers in the vicinity of the project site include the single-family residential dwellings located at receiver locations R1, R2, R4, R5, and R7 to R9. Receiver locations R3 and R6 represent existing multi-family land uses in the project study area. The closest sensitive receiver is represented by location R1 at a distance of approximately 166 feet east of the project site.

- R1: Located approximately 166 feet east of the project site, location R1 represents existing residential homes across Elizabeth Lane.
- R2: Location R2 represents residential homes located approximately 354 feet east of the project site across Elizabeth Lane.
- R3: Location R3 represents the existing multi-family residential homes located roughly 733 feet west of the project site along Yamas Drive.
- R4: Location R4 represents the existing single-family residential homes located approximately 1,056 feet northeast of the project site along Jana Lane.
- R5: Location R5 represents an existing residential home situated approximately 1,633 feet northwest of the project site boundary, at the northwest corner of Clinton Keith Road and Salida Del Sol.
- R6: At a distance of approximately 202 feet southeast of the project site, location R6 represents a noise-sensitive multi-family residential community south of Prielipp Road.
- R7: At a distance of 202 feet from the project site boundary, location R7 represents the residential homes located southwest the project site across Prielipp Road.
- R8: Location R8 represents the residential homes located approximately 302 feet south of the project site, across Prielipp Road.

3.9 NOISE

- R9: Located approximately 1,615 feet east of the project site, location R9 represents an existing residential community along Mustang Spirit Lane.

EXISTING NOISE CONDITIONS

To assess the current ambient noise levels both within and around the proposed project site, the roadways surrounding the proposed project were evaluated. The evaluation included establishing noise level contour boundaries for the 55, 60, 65, and 70 dBA CNEL on 12 roadway segments surrounding the project site. **Table 3.9-3** presents these existing CNEL noise contour boundaries with existing traffic volumes for these 12 roadway segments.

**TABLE 3.9-3
EXISTING CONDITIONS NOISE CONTOURS**

Road	Segment	CNEL at 100 Feet (dBA) ¹	Distance to Contour (feet) ¹			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
George Avenue	North of Clinton Keith Road	57.9	RW ²	RW	72	155
Inland Valley Drive	South of Clinton Keith Road	60.0	RW	RW	101	217
Elizabeth Lane	South of Clinton Keith Road	45.5	RW	RW	RW	RW
Elizabeth Lane	North of Prielipp Road	40.7	RW	RW	RW	RW
Clinton Keith Road	West of George Avenue	66.5	58	126	270	583
Clinton Keith Road	East of George Avenue	66.7	60	130	279	601
Clinton Keith Road	East of Inland Valley Drive	65.0	RW	100	215	464
Clinton Keith Road	West of Elizabeth Lane	65.1	RW	102	219	472
Clinton Keith Road	East of Elizabeth Lane	64.9	RW	99	212	458
Prielipp Road	East of Inland Valley Drive	60.0	RW	RW	100	215
Prielipp Road	West of Elizabeth Lane	59.4	RW	RW	91	196
Prielipp Road	East of Elizabeth Lane	59.3	RW	RW	90	193

Source: *Urban Crossroads 2015a*

1. Measurement from centerline

2. RW = location of the respective noise contour falls within the right-of-way of the road

As shown in **Table 3.9-3**, several of the roadway segments exceed the 65 dBA CNEL standard at 100 feet from roadway centerlines.

3.9.3 REGULATORY FRAMEWORK

STATE

Government Code

Government Code Section 65302(f) requires that a noise element be included as part of all city and county general plans.



HORIZONS



LEGEND:

-  Noise Receiver Locations

Figure 3.9-2
Receiver Locations

3.9 NOISE

Noise contours must be shown for noise sources based on noise monitoring and accepted noise modeling techniques. The noise contours are to be used as a guide for designating land uses in the land use element that minimizes the exposure of community residents to excessive noise.

California Building Standards Code

Title 24 of the California Code of Regulations contains standards for allowable interior noise levels associated with exterior noise sources (California Building Standards Code, 1998 edition, Volume 1, Appendix Chapter 12, Section 1208A). The standards apply to new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family residences. The standards state that the interior noise level attributable to exterior sources cannot exceed 45 dBA in any habitable room. Proposed residential structures to be located where the annual L_{dn} or CNEL exceeds 60 dBA require an acoustical analysis showing that the proposed building design would achieve the prescribed allowable interior noise standard. The noise metric (measurement period, such as hourly or daily) is either the day-night average sound level (L_{dn}) or the Community Noise Equivalent Level (CNEL), consistent with the noise element of the local general plan. Worst-case noise levels, either existing or future, are used as the basis for determining compliance with these standards (Caltrans 2002).

LOCAL

City of Wildomar General Plan

The Noise Element of the City of Wildomar General Plan addresses several types of noise sources: mobile, stationary, and construction. The mobile, or transportation-related, noise impact policies are intended to ensure that noise-sensitive land uses are not located near noisy roads. The stationary impact noise policies are intended to ensure that a proposed land use does not generate noise that could affect sensitive receptors during operations. Construction noise can affect existing development, and the Noise Element policies are intended to minimize the impact.

Operational Noise Standards

The City of Wildomar General Plan Noise Element specifies the maximum noise levels allowable for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. The Noise Element includes standards for land use compatibility for community noise exposure in Policy N 1.3 and Policy N 4.1 and characterizes residential uses as noise-sensitive uses. For noise-sensitive land uses, the exterior noise levels should not exceed 65 dBA CNEL. The Noise Element also includes Table N-1, Land Use Compatibility for Community Noise Exposure, indicating that exterior noise for residential uses is "conditionally acceptable" up to 70 dBA (see **Table 3.9-4**).

In addition to exterior noise, the Noise Element establishes an interior noise standard of 45 dBA CNEL for noise-sensitive uses in Policy N 13.1. The Noise Element contains several policies associated with noise-generating uses.

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**TABLE 3.9-4
CITY OF WILDOMAR LAND USE COMPATIBILITY NOISE CRITERIA**

Land Use Category	Community Noise Exposure (L _{dn} or CNEL, dBA)						Interpretation
	55	60	65	70	75	80	
Residential – Single-Family	[Light Gray Box]						<p>Normally Acceptable Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</p> <p>Conditionally Acceptable New construction or development should be undertaken only after a detailed analysis of noise reduction requirements and needed noise insulation features included in the design. Conventional construction with closed windows and fresh air supply systems or air conditioning will normally suffice.</p> <p>Normally Unacceptable New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p>
	[Light Gray Box]		[Light Gray Box]		[Hatched Box]	[Black Box]	
Residential – Multiple-Family	[Light Gray Box]						
	[Light Gray Box]		[Light Gray Box]		[Hatched Box]	[Black Box]	
Transient Lodging – Motels, Hotels	[Light Gray Box]						
	[Light Gray Box]		[Light Gray Box]		[Hatched Box]	[Black Box]	
Schools, Libraries, Churches, Hospitals, Nursing Homes	[Light Gray Box]						
	[Light Gray Box]		[Light Gray Box]		[Hatched Box]	[Black Box]	
Auditoriums, Concert Halls, Amphitheaters	[Light Gray Box]						
	[Light Gray Box]		[Light Gray Box]		[Hatched Box]	[Black Box]	
Sports Arena, Outdoor Spectator Sports	[Light Gray Box]						
	[Black Box]						
	[Light Gray Box]				[Hatched Box]		
	[Light Gray Box]				[Hatched Box]		
Playgrounds, Parks	[Light Gray Box]						
	[Light Gray Box]				[Black Box]		

3.9 NOISE

Land Use Category	Community Noise Exposure (L _{dn} or CNEL, dBA)						Interpretation
	55	60	65	70	75	80	
Golf Courses, Riding Stables, Water Recreation, Cemeteries	[Shaded area from 55 to 75]						<div style="background-color: black; width: 100px; height: 15px; margin-bottom: 5px;"></div> Clearly Unacceptable New construction or development should generally not be undertaken.
	[Shaded area from 75 to 80]						
Office Buildings, Business Commercial and Professional	[Shaded area from 55 to 70]						
	[Shaded area from 70 to 75]						
Industrial, Manufacturing	[Shaded area from 55 to 70]						
	[Shaded area from 70 to 80]						

Source: Wildomar 2008

Worst-case impacts from stationary (non-transportation) noise sources (such as speakerphones, trash compactors, etc.) for daytime and nighttime activities are provided in Policy 4.1 and shown in **Table 3.9-5**.

**TABLE 3.9-5
FACILITY-RELATED NOISE, RECEIVED BY ANY SENSITIVE USE, WORST-CASE LEVELS**

Worst-Case Noise Level	Time of Day
65 dBA L _{eq} – 10 minutes	7 a.m. to 10 p.m.
45 dBA L _{eq} – 10 minutes	10 p.m. to 7 a.m.

Source: Wildomar 2008 (Noise Element, Policy N 4.1)

Construction-Related Noise Standards

Noise Element Policy N 12.1 requires that construction noise be minimized within acceptable practices. Among these are the requirement for a noise mitigation plan in Policy N 12.3 that must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project through the use of methods including, but not limited to, temporary noise attenuation fences, preferential location of equipment, and use of current noise suppression technology and equipment.

The General Plan also requires that all construction equipment use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer (General Plan Policy N 12.4). The General Plan does not contain any decibel limits on construction noise.

Community Noise Assessment Criteria

Changes in noise levels greater than 3 dBA are often identified as “barely perceptible,” while changes of 5 dBA are “readily perceptible.” Studies show that a relative noise impact of 5 dBA triggers community reaction (sporadic complaints to widespread complaints to several legal threats to vigorous action). In the range of 1 dBA to 3 dBA, people who are very sensitive to noise may perceive a slight change in noise level. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dBA. However, in a community situation, the noise exposure is extended over a long time period, and changes in noise levels occur over

3.9 NOISE

years rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dBA, and 3 dBA appears to be appropriate for most people. While a 1 dBA increase may be perceptible to a minority of very noise-sensitive people, noise increases of up to 3 dBA are barely perceptible to most people. The 3 dBA increase criteria represent a balance of community benefits and reasonableness.

GROUNDBORNE VIBRATION

According to the Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of groundborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second) and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts are generally associated with activities such as train operations, construction, and heavy truck movements (FTA 2006).

The background vibration-velocity level in residential areas is generally 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

The General Plan Noise Element also addresses vibration by establishing policies that restrict the placement of sensitive land uses in proximity to vibration-producing land uses. While the Noise Element contains Table N-3 (shown here as **Table 3.9-6**) that shows the human reaction to typical vibration levels, it does not establish a threshold or limit on vibration. Development projects in Wildomar are compared with the groundborne vibration criteria recommended by Caltrans, described below.

**TABLE 3.9-6
HUMAN REACTION TO TYPICAL VIBRATION LEVELS**

Vibration Level Peak Particle Velocity (inches/second)	Human Reaction
0.0059–0.0188	Threshold of perception, possibility of intrusion
0.0787	Vibrations readily perceptible
0.0984	Continuous vibration begins to annoy people
0.1968	Vibrations annoying to people in buildings
0.3937–0.5905	Vibrations considered unpleasant when continuously subjected and unacceptable by some walking on bridges

Source: Wildomar 2008 (Noise Element, Table N-3)

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The City of Wildomar has not identified or adopted vibration standards. However, the FTA provides guidelines for maximum acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB for residential uses and buildings where people normally sleep. **Table 3.9-7** shows representative construction equipment vibration levels at 25 feet from the property based on information from Caltrans and the Federal Transit Administration.

**TABLE 3.9-7
REPRESENTATIVE CONSTRUCTION EQUIPMENT VIBRATION LEVELS**

Equipment	Peak Particle Velocity at 25 Feet (in/sec ppv)¹	Approximate Lv at 25 Feet²
Impact Pile Driver (upper range)	1.518	112
Impact Pile Driver (typical)	0.644	104
Sonic Pile Driver (upper range)	0.734	105
Sonic Pile Driver (typical)	0.170	93
Vibratory Roller	0.210	94
Large Tractors	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Tractors	0.003	58

Source: Caltrans 2004; FTA 2006

¹ Where PPV is the peak particle velocity

² Where L_v is the velocity level in decibels (VdB) referenced to 1 micro-inch/second and based on the root mean square (RMS) velocity amplitude.

3.9.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Criteria for determining the significance of noise impacts were developed based on information contained in California Environmental Quality Act (CEQA) Guidelines Appendix G. According to those guidelines, a project may have a significant effect on the environment if it would result in the following conditions:

- 1) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or of applicable standards of other agencies.
- 2) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- 3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- 4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- 5) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, exposure of people residing or working in the project area to excessive noise levels.

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- 6) For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

The nearest airport is Skylark Field Airport, which is located approximately 6 miles northwest of the proposed project site. The project site is not located within 2 miles of a public airport or private airstrip, nor would implementation of the proposed project affect airport operations. For these reasons, there is no impact to the exposure of people to aircraft noise levels and Standards of Significance 5 and 6 are not discussed further in this DEIR.

Construction Noise

The City of Wildomar General Plan does not set standards for temporary noise impacts like construction. Chapter 9.48 of the Wildomar Municipal Code includes noise standards in addition to the standards contained in the General Plan, but Municipal Code Section 9.48.010 specifically states that the noise standards contained in that chapter are not thresholds of significance for the purposes of CEQA review. In addition, Wildomar Municipal Code Section 9.48.020(l) states that noise emanating from private construction projects located within one-quarter of a mile from an inhabited dwelling is exempt from the noise ordinance, provided that construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September or between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

To determine a threshold for construction noise, worker noise safety standards of other agencies were reviewed. The rationale is that if a maximum construction noise level is generally safe for construction workers who are exposed to the noise all day, the noise level should be also be safe for adjacent residents who are typically farther from the noise source and exposed only briefly during the day. Noise standards from Caltrans, the American National Standards Institute (ANSI), the American Conference of Governmental Industrial Hygienists (ACGIH), the Federal Railroad Administration (FRA), and the California Department of Industrial Relations (DIR) were reviewed. Their limits are as follows:

Caltrans Standard Specifications Section 14-8

Do not exceed 86 dBA L_{max} at 50 feet from the job site activities from 9 p.m. to 6 a.m.

The American National Standards Institute

A10.46-2007, Hearing Loss Prevention in Construction and Demolition Workers. Applies to all construction and demolition workers with potential noise exposures (continuous, intermittent, and impulse) of 85 dBA and above.

The American Conference of Governmental Industrial Hygienists

The ACGIH has established exposure guidelines for occupational exposure to noise in its Threshold Limit Values (TLVs) (85 dBA PEL with a 3 dBA exchange rate).

Federal Railroad Administration

49 CFR 227, Occupational Noise Exposure for Railroad Operating Employees. Requires railroads to conduct noise monitoring and implement a hearing conservation program for employees whose exposure to cab noise equals or exceeds an 8-hour time-weighted-average of 85 dBA. This final rule became effective February 26, 2007.

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California Department of Industrial Relations

Employers shall make hearing protectors available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater at no cost to the employees. Hearing protectors shall be replaced as necessary. The DIR also establishes time-based exposure limits to different noise levels; however, their table starts at the 90 dBA level.

The policies and guidelines above suggest 85 dBA is a reasonable threshold of noise exposure for construction workers. It should be noted that this threshold is based on worker protection, which assumes continuous exposure for the worker. Construction activities would be intermittent and temporary, and it is unlikely that a noise-sensitive receptor would be exposed to construction-related noise levels above 85 dBA continuously for the length of the project's construction. For purposes of this EIR, the City has determined that exposure of noise-sensitive receptors to construction noise levels above 85 dBA would result in a potentially significant impact.

Long-Term Off-Site Transportation Noise Impacts

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model FHWA-RD-77-108. The FHWA model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the California Vehicle Noise (Calveno) Emission Levels are substituted for the national REMEL. Adjustments are then made to the REMEL to account for the roadway classification (e.g., collector, secondary, major, or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT that flows each hour throughout a 24-hour period.

To assess the off-site transportation noise level impacts associated with development of the proposed project, noise contours were developed based on the traffic impact analysis prepared by Urban Crossroads (2015b). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Traffic noise contour boundaries are typically calculated at distances of 100 feet from a roadway centerline. Noise contours were developed for the following traffic scenarios:

Existing Without/With Project: This scenario refers to the existing present-day noise conditions, without the project and with the construction of the proposed project.

Year (2017) Without/With Project: This scenario refers to the background noise conditions at future Year 2017 with and without the proposed project. This scenario corresponds to 2017 conditions and includes all cumulative projects identified in the traffic impact analysis.

Year (2035) Without/With Project: This scenario refers to the background noise conditions at General Plan buildout (post-2035) with and without the proposed project. This scenario corresponds to 2035 conditions and includes all cumulative projects identified in the traffic impact analysis.

To quantify the project's traffic noise impacts on the surrounding areas, the changes in traffic noise levels on 12 roadway segments surrounding the project were calculated based on the changes in the average daily traffic volumes. The noise contours were used to assess the project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying

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project traffic. The traffic noise contour worksheets are included in **Appendix 3.9**. Based on the cumulative noise impact significance criteria described in **Table 3.9-2**, a significant off-site traffic noise level impact occurs when the without project noise levels:

- Are less than 60 dBA and the project creates a readily perceptible 5 dBA or greater project-related noise level increase; or
- Range from 60 to 65 dBA and the project creates a barely perceptible 3 dBA or greater project noise level increase; or
- Already exceed 65 dBA, and the project creates a community noise level impact of greater than 1.5 dBA.

LAND USE COMPATIBILITY

Proposed land uses are evaluated in comparison to the City's General Plan noise standards for land use compatibility shown in **Table 3.9-4**. The proposed project contains multi-family residential and senior living facility land uses. Multi-family residential land use is considered normally acceptable with unmitigated exterior levels of less than 65 dBA CNEL, while senior living facility land uses are normally acceptable with unmitigated exterior noise levels of less than 70 dBA CNEL. For conditionally acceptable exterior noise levels, approaching 70 dBA CNEL for multi-family and senior living facility land uses, new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Vibration Impacts

Construction activity can result in varying degrees of groundborne vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally, large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. Groundborne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of groundborne vibration and the short duration of the associated events, vehicular traffic-induced groundborne vibration is rarely perceptible beyond the roadway right-of-way and rarely results in vibration levels that cause damage to buildings in the vicinity. While not enforceable regulations in Wildomar, the FTA guidelines of 80 VdB for sensitive land uses provide the basis for determining the relative significance of potential project-related vibration impacts.

METHODOLOGY

The following subsection outlines the methods and procedures used to model and analyze the future traffic noise environment.

Short-Term Exposure to Construction-Related Noise

Construction noise represents a short-term impact on the ambient noise levels. The project's construction noise impacts will include both short-term mobile equipment and long-term stationary equipment. Short-term mobile construction activities (e.g., nail guns, hammers, power saws, drills) that are not staged or stationary will be undertaken throughout the project site.

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During construction, all of the long-term construction equipment (generators, compressors, pumps) staging activities will be located in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors. It is expected that project construction activities will consist primarily of short-term mobile equipment noise associated with backhoes, water trucks, graders, excavators, dump trucks, pickup trucks, vibratory rollers, and pavers. Portable tools will likely involve compressors, nail guns, hammers, drills, and saws.

Predicted noise levels at nearby noise-sensitive land uses were calculated utilizing typical noise levels and usage rates associated with construction equipment, derived from the FHWA Roadway Construction Noise Model (version 1.1). Construction noise levels are predicted assuming an average noise attenuation rate of 6 dB per doubling of distance from the source, in conformance with the stationary source attenuation rate estimated by the US Environmental Protection Agency (EPA). The mix of construction equipment by construction phase is consistent with the data found in **Appendix 3.2**.

Transportation Noise

The following methods and procedures were used to model and analyze the future traffic noise environment.

FHWA Traffic Noise Prediction Model

The roadway noise impacts from vehicular traffic were projected using a computer program that replicates the FHWA Traffic Noise Prediction Model FHWA-RD-77-108 (the FHWA model). The FHWA model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the REMEL to account for the roadway classification (e.g., collector, secondary, major, or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT that flows each hour throughout a 24-hour period.

Traffic Noise Prediction Model Inputs

Table 3.9-8 presents the FHWA model roadway parameters used in the analysis. Soft site conditions were used to develop the noise contours to analyze the traffic noise impacts. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Even though the proposed project will result in development, the areas adjacent to the roadway will remain earthen and vegetated rather than completely covered with concrete, asphalt, or another building material. Therefore, soft site conditions better represent the noise level contours.

The existing, Year 2017, and Year 2035 average daily traffic volumes used for the study and presented in **Table 3.9-9** were provided by the traffic impact analysis prepared by Urban Crossroads (2015b).

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**TABLE 3.9-8
OFF-SITE ROADWAY PARAMETERS**

Roadway	Segment	Roadway Classification ¹	Lanes	Vehicle Speed (mph)
George Avenue	North of Clinton Keith Road	Secondary	4	45
Inland Valley Drive	South of Clinton Keith Road	Secondary	4	45
Elizabeth Lane	South of Clinton Keith Road	Collector	2	40
Elizabeth Lane	North of Prielipp Road	Collector	2	40
Clinton Keith Road	West of George Avenue	Urban Arterial	6	50
Clinton Keith Road	East of George Avenue	Urban Arterial	6	50
Clinton Keith Road	East of Inland Valley Drive	Urban Arterial	6	50
Clinton Keith Road	West of Elizabeth Lane	Urban Arterial	6	50
Clinton Keith Road	East of Elizabeth Lane	Urban Arterial	6	50
Prielipp Road	East of Inland Valley Drive	Secondary	4	45
Prielipp Road	West of Elizabeth Lane	Secondary	4	45
Prielipp Road	East of Elizabeth Lane	Secondary	4	45

Source: *Urban Crossroads 2015b*; 1. Wildomar 2008

**TABLE 3.9-9
AVERAGE DAILY TRAFFIC VOLUMES FOR EXISTING, YEAR 2017, AND YEAR 2035 CONDITIONS**

Roadway	Segment	Average Daily Traffic (1,000s)					
		Existing		Year 2017		Year 2035	
		No Project	With Project	No Project	With Project	No Project	With Project
George Avenue	North of Clinton Keith Road	3.8	3.8	5.5	5.6	8.9	9.0
Inland Valley Drive	South of Clinton Keith Road	6.3	6.3	8.7	8.7	20.9	21.0
Elizabeth Lane	South of Clinton Keith Road	0.3	1.0	7.9	8.7	6.1	6.9
Elizabeth Lane	North of Prielipp Road	0.1	0.3	0.4	0.6	5.7	6.0
Clinton Keith Road	West of George Avenue	20.4	21.0	34.8	35.4	53.4	54.0
Clinton Keith Road	East of George Avenue	21.4	22.7	35.4	36.1	36.4	37.0
Clinton Keith Road	East of Inland Valley Drive	14.5	15.2	25.9	26.5	38.4	39.0
Clinton Keith Road	West of Elizabeth Lane	14.9	15.5	24.6	25.2	44.4	45.0
Clinton Keith Road	East of Elizabeth Lane	14.2	14.3	19.6	19.8	44.8	45.0
Prielipp Road	East of Inland Valley Drive	6.2	6.2	8.6	8.6	17.9	18.0
Prielipp Road	West of Elizabeth Lane	5.4	5.5	9.3	9.4	18.9	19.0
Prielipp Road	East of Elizabeth Lane	5.3	5.6	9.3	9.6	24.7	25.0

Source: *Urban Crossroads 2015b*

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Table 3.9-10 presents the hourly traffic flow distributions (vehicle mix) used for this analysis. The vehicle mixes were based on City of Wildomar requirements to prepare noise impact analysis and the truck mix data provided by Caltrans for all freeways. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA model.

**TABLE 3.9-10
HOURLY TRAFFIC FLOW DISTRIBUTION¹**

Motor Vehicle Type ¹	Daytime (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Total % Traffic Flow
Automobiles	77.5%	12.9%	9.6%	97.42%
Medium Trucks	84.8%	4.9%	10.3%	1.84%
Heavy Trucks	86.5%	2.7%	10.8%	0.74%

Source: *Urban Crossroads 2015a*

1. Vehicle mix obtained from the General Plan Circulation Element.

IMPACTS AND MITIGATION MEASURES

Exposure to Excessive Noise Levels (Standard of Significance 1)

Impact 3.9.1 The proposed project may expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or of applicable standards of other agencies. As such, impacts are considered **potentially significant**.

Construction Noise Level Impacts

Noise levels generated by heavy construction equipment can range from approximately 70 dBA to in excess of 100 dBA when measured at 50 feet. Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, power tools, concrete mixers, and portable generators, can reach high levels. Project construction is expected to occur in the following five stages:

- Site preparation
- Grading
- Building construction
- Paving
- Architectural coating

Using the stationary-source Roadway Construction Noise Model noise prediction model, calculations were completed of project construction noise level impacts at nine noise receiver locations in the project vicinity, the nearest at 166 feet (*Urban Crossroads 2015a*). The analysis shows that the highest construction noise level impacts will occur during grading construction activities at the boundaries of the project site. As shown in **Table 3.9-11**, the unmitigated peak construction noise levels are expected to range from 56.8 to 76.7 dBA L_{eq} .

3.9 NOISE

**TABLE 3.9-11
CONSTRUCTION NOISE LEVELS**

Noise Receiver	Distance to Property Line (in feet)	Construction Phase Hourly Noise Level (dBA Leq)					
		Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Peak ¹
R1	166	72.5	76.7	72.3	70.4	63.6	76.7
R2	354	65.9	70.1	65.7	63.9	57.0	70.1
R3	733	59.6	63.8	59.4	57.5	50.7	63.8
R4	1,056	56.4	60.6	56.2	54.4	47.5	60.6
R5	1,633	52.6	56.8	52.5	50.6	43.7	56.8
R6	202	70.8	75.0	70.6	68.7	61.9	75.0
R7	202	70.8	75.0	70.6	68.7	61.9	75.0
R8	302	67.3	71.5	67.1	65.2	58.4	71.5
R9	1,615	52.7	56.9	52.6	50.7	43.8	56.9

Source: Urban Crossroads 2015a

1. Estimated construction noise levels during peak operating conditions.

As previously stated, the City of Wildomar General Plan does not set standards for temporary noise impacts like construction. Chapter 9.48 of the Wildomar Municipal Code includes noise standards in addition to the standards contained in the General Plan, but Municipal Code Section 9.48.010 specifically states that the noise standards contained in that chapter are not thresholds of significance for the purposes of CEQA review. Worker noise safety standards of other agencies such as Caltrans, the American National Standards Institute, the American Conference of Governmental Industrial Hygienists, the Federal Railroad Administration, and the California Department of Industrial Relations suggest 85 dBA is a reasonable threshold of noise exposure for construction workers. Therefore, for the purposes of this analysis, the City has determined that exposure of noise-sensitive receptors to construction noise levels above 85 dBA would result in a potentially significant impact. The rationale is that if a maximum construction noise level is generally safe for construction workers who are exposed to the noise all day, the noise level should be also be safe for adjacent residents who are typically farther from the noise source and exposed only briefly during the day.

As shown in **Table 3.9-11**, the unmitigated peak construction noise levels are expected to range from 56.8 to 76.7 dBA Leq, which is below the threshold of 85 dBA. Furthermore, in conformance with City Municipal Code Section 9.48.020, noise-generating project construction activities would not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September or between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May. Therefore, construction-generated noise would be less than significant.

Operation Noise Level Impacts

It is expected that the primary source of noise impacts to the project site will be traffic noise from Prielipp Road and Elizabeth Lane. There are no other substantial noise sources in the vicinity. The project will also experience some background traffic noise impacts from the proposed Bunny Trail roadway to the north and the internal project residential streets; however, due to the distance, topography, and low traffic volume/speed, traffic noise from these roads will not make a significant contribution to the noise environment.

3.9 NOISE

On-Site Exterior Noise Levels

Using the FHWA model and the parameters outlined in **Tables 3.9-8** and **3.9-9**, the expected future exterior noise levels were calculated. **Table 3.9-12** presents a summary of future exterior noise level impacts. The estimated noise levels represent the worst-case exterior noise level impacts from Elizabeth Lane and Prielipp Road. The on-site traffic noise level impacts indicate that the townhomes, assisted living (east façade), and assisted living (south façade) will experience unmitigated exterior noise levels ranging from 48.1 to 63.0 dBA CNEL. The on-site traffic noise analysis calculations are provided in **Appendix 3.9**. According to the City of Wildomar Land Use Compatibility for Community Noise Exposure (Table N-1) in the General Plan Noise Element, noise levels between 60 and 70 dBA CNEL are considered conditionally acceptable. Since the expected exterior noise levels will not exceed 70 dBA CNEL, no exterior noise mitigation is needed, and this impact would be less than significant.

**TABLE 3.9-12
ON-SITE EXTERIOR NOISE LEVELS (CNEL)**

Building	Roadway	Unmitigated Noise Level (dBA CNEL)
39 (townhomes)	Elizabeth Lane	63.0
Assisted Living (east façade)	Elizabeth Lane	48.1
Assisted Living (south façade)	Prielipp Road	48.4

Source: *Urban Crossroads 2015a*

On-Site Interior Noise Levels

To ensure that the interior noise levels comply with the City of Wildomar 45 dBA CNEL interior noise standards, future noise levels were calculated at the first- and second-floor building façades. The interior noise level is the difference between the predicted exterior noise level at the building façade and the noise reduction of the structure. Typical building construction will provide a noise level reduction of approximately 12 dBA with windows open and a minimum 25 dBA noise reduction with windows closed (*Urban Crossroads 2015a*). However, sound leaks, cracks, and openings in the window assembly can greatly diminish the effectiveness in reducing noise.

Table 3.9-13 shows that the future noise levels at the first-floor building façade are expected to range from 48.1 to 63.0 dBA CNEL. The first-floor interior noise level analysis shows that the City's 45 dBA CNEL interior noise level standards can be satisfied using standard windows with a minimum Sound Transmission Class (STC) rating of 27.

**TABLE 3.9-13
FIRST-FLOOR INTERIOR NOISE IMPACTS (CNEL)**

Building	Roadway	Noise Level at Façade	Interior Noise Level for Windows		Required Interior Noise Reduction
			Open ¹	Closed ²	
39 (townhomes)	Elizabeth Lane	63.0	51.0	38.0	18.0
Assisted Living (east façade)	Elizabeth Lane	48.1	36.1	23.1	3.1
Assisted Living (south façade)	Prielipp Road	48.4	36.4	23.4	3.4

Source: *Urban Crossroads 2015a*

1. A minimum of 12 dBA noise reduction is assumed with a windows open condition.

2. A minimum of 25 dBA noise reduction is assumed with windows closed and standard windows with a minimum STC of 27.

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Table 3.9-14 shows that the future noise levels at the second-floor building façade are expected to range from 63.0 to 64.4 dBA CNEL, and windows with a minimum STC rating of 27 are expected to satisfy the City’s 45 dBA CNEL interior noise level standards.

**TABLE 3.9-14
SECOND-FLOOR INTERIOR NOISE IMPACTS (CNEL)**

Building	Roadway	Noise Level at Façade	Interior Noise Level for Windows		Required Interior Noise Reduction
			Open ¹	Closed ²	
39 (townhomes)	Elizabeth Lane	63.0	51.0	38.0	18.0
Assisted Living (east façade)	Elizabeth Lane	64.4	52.4	39.4	19.4
Assisted Living (south façade)	Prielipp Road	64.1	52.1	39.1	3.4

Source: *Urban Crossroads 2015a*

1. A minimum of 12 dBA noise reduction is assumed with a windows open condition.
2. A minimum of 25 dBA noise reduction is assumed with windows closed and standard windows with a minimum STC of 27.

In order to meet the City of Wildomar 45 dBA CNEL interior noise level standard, rooms facing Elizabeth Lane and Prielipp Road will require windows with a minimum STC rating of 27. Implementation of mitigation measure **MM 3.9.1** would satisfy the City’s 45 dBA CNEL interior noise level standard for multi-family residential development.

Mitigation Measures

MM 3.9.1

The project applicant shall provide a “windows closed” condition, requiring a means of mechanical ventilation for all units facing Elizabeth Lane and Prielipp Road. To ensure that the City of Wildomar’s 45 dBA CNEL interior noise level is met, the following measures shall be implemented:

- Windows: All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum STC of 27.
- Doors: All exterior doors shall be well weather-stripped solid core assemblies at least 1.75 inches thick.
- Roof: Roof sheathing of wood construction shall be well fitted or caulked plywood of at least 0.5 inches thick. Ceilings shall be well fitted, well sealed gypsum board of at least 0.5 inches thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g., air conditioning) shall be provided which satisfies the requirements of the Uniform Mechanical Code.

Timing/Implementation: Prior to a certificate of occupancy (as part of building permit requirements)

Enforcement/Monitoring: City of Wildomar Planning and Building Departments

With the interior noise mitigation measures provided in mitigation measure **MM 3.9.1**, the proposed project is expected to meet the City’s 45 dBA CNEL interior noise level standards for

3.9 NOISE

residential development. With implementation of the above mitigation measure, the interior noise level will be reduced below the applicable threshold. This is a **less than significant** impact.

Exposure Excessive Groundborne Vibration or Noise (Standard of Significance 2)

Impact 3.9.2 Implementation of the proposed project may expose persons to or generate minimal, short-duration groundborne vibration or groundborne noise levels. This impact is considered **less than significant**.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. It is expected that groundborne vibration from project construction activities would cause only intermittent, localized intrusion. The proposed project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential to cause at least some perceptible vibration while operating close to buildings, the vibration is usually short term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any residences to cause a vibration impact.
- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Groundborne vibration levels resulting from construction activities occurring on the project site were estimated based on data published by the Federal Transit Administration (FTA). Construction activities that would occur on the project site are expected to include excavation and grading, which would have the potential to generate low levels of groundborne vibration. Using the vibration level of construction equipment provided in **Table 3.9-15** and the construction vibration assessment methodology published by the FTA, it is possible to estimate the project vibration impacts. **Table 3.9-15** presents the expected project-related vibration levels at each of the nine noise receiver locations.

**TABLE 3.9-15
CONSTRUCTION EQUIPMENT VIBRATION LEVELS**

Noise Receiver	Distance to Property Line (in feet)	Receiver Vibration Levels					Significant Impact
		Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer	Peak Vibration	
R1	166	33.3	54.3	61.3	62.3	62.3	No
R2	354	23.5	44.5	51.5	52.5	52.5	No
R3	733	14.0	35.0	42.0	43.0	43.0	No
R4	1,056	9.2	30.2	37.2	38.2	38.2	No
R5	1,633	3.5	24.5	31.5	32.5	32.5	No
R6	202	30.8	51.8	58.8	59.8	59.8	No
R7	202	30.8	51.8	58.8	59.8	59.8	No
R8	302	25.5	46.5	53.5	54.5	54.5	No
R9	1,615	3.7	24.7	31.7	32.7	32.7	No

Source: Urban Crossroads 2015a

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Project construction is not expected to generate vibration levels exceeding the FTA maximum acceptable vibration standard of 80 (VdB). Further, impacts at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur only during the times that heavy construction equipment is operating proximate to the project site perimeter. Moreover, construction at the project site will be restricted to daytime hours consistent with City requirements, thereby eliminating potential vibration impacts during the sensitive nighttime hours. Because the projected ground vibration is less than the acceptable standard, this impact is considered **less than significant**.

Mitigation Measures

None required.

Result in a Permanent Increase in Ambient Noise Levels (Standard of Significance 3)

Impact 3.9.3 Completion of the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity. As such, impacts are considered **less than significant**.

Off-Site Traffic Noise Contour Boundaries

Traffic noise contour boundaries are often desired by local land planning and zoning authorities to represent sound level exposures on land that is being considered for development and is adjacent to highways. Noise contour boundaries represent the equal levels of noise exposure and are measured from the center of the roadway. Traffic noise contour boundaries are calculated at distances of 100 feet from a roadway centerline. CNEL noise contour boundaries are determined below for the 55, 60, 65, and 70 dBA noise levels. The off-site transportation noise contour calculations are presented in **Appendix 3.9**. **Tables 3.9-3** and **3.9-16** present the existing conditions noise contours without and with the project. **Tables 3.9-17** and **3.9-18** present the Year 2017 noise contours without and with the project. The off-site traffic noise analysis worksheets are included in **Appendix 3.9**.

The off-site traffic noise prediction model inputs are used to calculate the reference CNEL dBA noise levels at a distance of 100 feet from the centerline for the 12 off-site study area roadway segments. Noise level contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. In addition, noise level contours do not take into account the effect of any existing noise barriers, intervening buildings, or topography.

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**TABLE 3.9-16
EXISTING WITH PROJECT CONDITIONS NOISE CONTOURS**

Road	Segment	CNEL at 100 Feet (dBA) ¹	Distance to Contour (feet) ¹			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
George Avenue	North of Clinton Keith Road	57.9	RW ²	RW	72	155
Inland Valley Drive	South of Clinton Keith Road	60.0	RW	RW	101	217
Elizabeth Lane	South of Clinton Keith Road	50.7	RW	RW	RW	52
Elizabeth Lane	North of Prielipp Road	45.5	RW	RW	RW	RW
Clinton Keith Road	West of George Avenue	66.6	59	128	276	594
Clinton Keith Road	East of George Avenue	66.8	61	132	285	614
Clinton Keith Road	East of Inland Valley Drive	65.2	RW	103	222	479
Clinton Keith Road	West of Elizabeth Lane	65.3	RW	105	225	485
Clinton Keith Road	East of Elizabeth Lane	64.9	RW	99	213	460
Prielipp Road	East of Inland Valley Drive	60.0	RW	RW	100	215
Prielipp Road	West of Elizabeth Lane	59.5	RW	RW	92	198
Prielipp Road	East of Elizabeth Lane	59.5	RW	RW	93	201

Source: Urban Crossroads 2015a

1. Measurement from centerline

2. RW = location of the respective noise contour falls within the right-of-way of the road

**TABLE 3.9-17
YEAR 2017 WITHOUT PROJECT CONDITIONS NOISE CONTOURS**

Road	Segment	CNEL at 100 Feet (dBA) ¹	Distance to Contour (feet) ¹			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
George Avenue	North of Clinton Keith Road	59.5	RW ²	RW	92	198
Inland Valley Drive	South of Clinton Keith Road	61.5	RW	58	125	269
Elizabeth Lane	South of Clinton Keith Road	59.7	RW	RW	95	205
Elizabeth Lane	North of Prielipp Road	46.7	RW	RW	RW	RW
Clinton Keith Road	West of George Avenue	68.8	83	179	386	832
Clinton Keith Road	East of George Avenue	68.9	84	181	390	841
Clinton Keith Road	East of Inland Valley Drive	67.5	68	147	317	683
Clinton Keith Road	West of Elizabeth Lane	67.3	66	142	306	660
Clinton Keith Road	East of Elizabeth Lane	66.3	57	122	263	567
Prielipp Road	East of Inland Valley Drive	61.4	RW	58	124	267
Prielipp Road	West of Elizabeth Lane	61.7	RW	61	131	281
Prielipp Road	East of Elizabeth Lane	61.7	RW	61	131	281

Source: Urban Crossroads 2015a

1. Measurement from centerline

2. RW = location of the respective noise contour falls within the right-of-way of the road

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**TABLE 3.9-18
YEAR 2017 WITH PROJECT CONDITIONS NOISE CONTOURS**

Road	Segment	CNEL at 100 Feet (dBA) ¹	Distance to Contour (feet) ¹			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
George Avenue	North of Clinton Keith Road	59.5	RW ²	RW	93	201
Inland Valley Drive	South of Clinton Keith Road	61.5	RW	58	125	269
Elizabeth Lane	South of Clinton Keith Road	60.1	RW	RW	101	218
Elizabeth Lane	North of Prielipp Road	48.5	RW	RW	RW	RW
Clinton Keith Road	West of George Avenue	68.9	84	181	390	841
Clinton Keith Road	East of George Avenue	69.0	85	184	396	852
Clinton Keith Road	East of Inland Valley Drive	67.6	69	149	322	694
Clinton Keith Road	West of Elizabeth Lane	67.4	67	144	311	671
Clinton Keith Road	East of Elizabeth Lane	66.4	57	123	265	571
Prielipp Road	East of Inland Valley Drive	61.4	RW	58	124	267
Prielipp Road	West of Elizabeth Lane	61.8	RW	61	132	283
Prielipp Road	East of Elizabeth Lane	61.9	RW	62	133	287

Source: *Urban Crossroads 2015a*

1. Measurement from centerline

2. RW = location of the respective noise contour falls within the right-of-way of the road

Table 3.9-19 presents a comparison of the Existing Without and With Project conditions off-site noise levels. **Table 3.9-3** shows that the unmitigated exterior noise levels are expected to range from 40.7 to 66.7 dBA CNEL at 100 feet from each roadway's centerline. **Table 3.9-16** presents the Existing With Project conditions unmitigated noise contours that are expected to range from 45.5 to 66.8 dBA CNEL at 100 feet from the roadway centerline. According to the significance criteria described above, a significant off-site traffic noise level impact occurs when:

- The Without Project noise levels are less than 60 dBA and the project creates a readily perceptible 5 dBA or greater project related noise level increase; or
- The Without Project noise levels range from 60 to 65 dBA and the project creates a barely perceptible 3 dBA or greater project noise level increase; or
- The Without Project noise levels already exceed 65 dBA, and the project creates a community noise level impact of greater than 1.5 dBA.

As shown in **Table 3.9-19**, the project is expected to generate an unmitigated exterior noise level increase on Elizabeth Lane south of Clinton Keith Road of 5.2 dBA CNEL. Even though the expected noise level of 50.7 dBA CNEL does not exceed the noise level criteria, it does create a "readily perceptible" noise level increase since current noise levels are less than 60 dBA and the project-related noise increase exceeds 5 dBA. This impact would be potentially significant under Existing With Project conditions.

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**TABLE 3.9-19
EXISTING WITH PROJECT OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS**

Road	Segment	CNEL at 100 Feet (dBA)			Potential Significant Impact ¹
		No Project	With Project	Project Contribution	
George Avenue	North of Clinton Keith Road	57.9	57.9	0.0	No
Inland Valley Drive	South of Clinton Keith Road	60.0	60.0	0.0	No
Elizabeth Lane	South of Clinton Keith Road	45.5	50.7	5.2	Yes
Elizabeth Lane	North of Prielipp Road	40.7	45.5	4.8	No
Clinton Keith Road	West of George Avenue	66.5	66.6	0.1	No
Clinton Keith Road	East of George Avenue	66.7	66.8	0.1	No
Clinton Keith Road	East of Inland Valley Drive	65.0	65.2	0.2	No
Clinton Keith Road	West of Elizabeth Lane	65.1	65.3	0.2	No
Clinton Keith Road	East of Elizabeth Lane	64.9	64.9	0.0	No
Prielipp Road	East of Inland Valley Drive	60.0	60.0	0.0	No
Prielipp Road	West of Elizabeth Lane	59.4	59.5	0.1	No
Prielipp Road	East of Elizabeth Lane	59.3	59.5	0.2	No

Source: Urban Crossroads 2015a

1. For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0 dB, or greater, where the noise levels, without project implementation, are less than 60 dBA. Where the noise level without project implementation range from 60-65 dBA, an increase of 3.0 dB or greater would be considered a substantial increase. Where the noise levels without project implementation exceeds 65 dBA, an increase of 1.5 dB or greater would be considered a substantial increase.

Table 3.9-20 presents a comparison of the Year 2017 Without and With Project conditions CNEL noise levels. Table 3.9-17 shows that the Year 2017 Without Project unmitigated exterior noise levels are expected to range from 46.7 to 68.9 dBA CNEL at 100 feet from each roadway's centerline. Table 3.9-18 presents the Year 2017 With Project conditions unmitigated noise contours that are expected to range from 48.5 to 69.0 dBA CNEL at 100 feet from the roadway centerline. As shown in Table 3.9-20, the project is expected to generate an unmitigated exterior noise level increase of up to 1.8 dBA CNEL. Based on the thresholds of significance, the proposed project will not create a significant traffic noise level impact on the study area roadway segments for Year 2017 conditions.

3.9 NOISE

**TABLE 3.9-20
YEAR 2017 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS**

Road	Segment	CNEL at 100 Feet (dBA)			Potential Significant Impact ¹
		No Project	With Project	Project Contribution	
George Avenue	North of Clinton Keith Road	59.5	59.5	0.0	No
Inland Valley Drive	South of Clinton Keith Road	61.5	61.5	0.0	No
Elizabeth Lane	South of Clinton Keith Road	59.7	60.1	0.4	No
Elizabeth Lane	North of Prielipp Road	46.7	48.5	1.8	No
Clinton Keith Road	West of George Avenue	68.8	68.9	0.1	No
Clinton Keith Road	East of George Avenue	68.9	69.0	0.1	No
Clinton Keith Road	East of Inland Valley Drive	67.5	67.6	0.1	No
Clinton Keith Road	West of Elizabeth Lane	67.3	67.4	0.1	No
Clinton Keith Road	East of Elizabeth Lane	66.3	66.4	0.1	No
Prielipp Road	East of Inland Valley Drive	61.4	61.4	0.0	No
Prielipp Road	West of Elizabeth Lane	61.7	61.8	0.1	No
Prielipp Road	East of Elizabeth Lane	61.7	61.9	0.2	No

Source: Urban Crossroads 2015a

1. For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0 dB, or greater, where the noise levels, without project implementation, are less than 60 dBA. Where the noise levels without project implementation range from 60-65 dBA, an increase of 3.0 dB or greater would be considered a substantial increase. Where the noise level without project implementation exceeds 65 dBA, an increase of 1.5 dB or greater would be considered a substantial increase.

This analysis shows that the project will create a substantial permanent increase in traffic-related noise levels under Existing With Project conditions. It is important to recognize that the land uses adjacent to this roadway segment south of Clinton Keith Road consist of vacant land to the west of Elizabeth Lane and a storage facility to the east. Since there are no noise-sensitive residential receptors impacted by the off-site traffic noise level impacts on Elizabeth Lane south of Clinton Keith Road, the project will create a **less than significant** off-site traffic noise level impact on the study area roadway segments for existing conditions.

Mitigation Measures

None required.

Result in a Temporary Increase in Ambient Noise Levels (Standard of Significance 4)

Impact 3.9.4 Construction of the proposed project may result in a temporary increase in ambient noise levels in the project vicinity. This temporary impact is considered **less than significant**.

Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers, and portable generators, can reach high levels, typically greater than 5 dBA over ambient noise levels. Grading activities typically represent one of the highest potential sources for noise impacts.

3.9 NOISE

Because the proposed project vicinity is already developed, it is possible that construction noise will result in a short-term increase in the ambient noise.

As shown in **Table 3.9-11**, the unmitigated construction noise levels are expected to range from 43.7 to 76.7 dBA L_{eq} , which is below the threshold of 85 dBA. Furthermore, in conformance with City Municipal Code Section 9.48.020, noise-generating project construction activities would not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September or between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May. Additionally, construction-related noise will tend to diminish as the use of heavy equipment in the early construction stages concludes and will dissipate entirely at the end of construction activities. This impact is **less than significant**.

Mitigation Measures

None required.

3.9.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting associated with the proposed project with regard to noise impacts includes approved, proposed, planned, and other reasonably foreseeable projects and development in Wildomar. Developments and planned land uses, including the proposed project, would cumulatively contribute to increased noise levels along roadways in the city.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Contribution to Cumulative Noise Levels

Impact 3.9.5 Implementation of the proposed project will not result in a substantial contribution to cumulative noise levels. The impact would be considered **less than cumulatively considerable**.

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to the proposed project and other projects within the project vicinity. Therefore, cumulative traffic-generated noise impacts have been assessed based on the contribution of the proposed project to the future cumulative base traffic volumes in the project vicinity. The proposed project's contribution to the cumulative traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without project-generated traffic. **Table 3.9-21** shows that the Year 2035 Without Project unmitigated exterior noise levels are expected to range from 58.2 to 70.7 dBA CNEL at 100 feet from each roadway's centerline. According to the City of Wildomar Land Use Compatibility for Community Noise Exposure (Table N-1) in the General Plan Noise Element, noise levels between 60 and 70 dBA CNEL are considered conditionally acceptable, therefore, roadway noise levels along Clinton Keith Road, west of George Avenue exceed the conditionally acceptable standard, and a project contribution greater than 1.5 dBA would be considered significant. **Table 3.9-22** presents the Year 2035 With Project conditions unmitigated noise contours that are expected to range from 58.5 to 70.7 dBA CNEL at 100 feet from the roadway centerline. **Table 3.9-23** presents a comparison of the Year 2035 Without and With Project conditions CNEL noise levels. As shown on **Table 3.9-23**, the project is expected to generate an unmitigated exterior noise level increase of up to 0.6 dBA CNEL. Based on the thresholds of significance, the proposed project will not create a significant traffic noise level impact on for Year 2035 (cumulative) conditions.

3.9 NOISE

**TABLE 3.9-21
YEAR 2035 WITHOUT PROJECT CONDITIONS NOISE CONTOURS**

Road	Segment	CNEL at 100 Feet (dBA) ¹	Distance to Contour (feet) ¹			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
George Avenue	North of Clinton Keith Road	61.5	RW ²	59	127	273
Inland Valley Drive	South of Clinton Keith Road	65.3	RW	104	224	483
Elizabeth Lane	South of Clinton Keith Road	58.5	RW	RW	80	172
Elizabeth Lane	North of Prielipp Road	58.2	RW	RW	76	165
Clinton Keith Road	West of George Avenue	70.7	111	238	514	1,106
Clinton Keith Road	East of George Avenue	69.0	86	185	398	857
Clinton Keith Road	East of Inland Valley Drive	69.2	89	191	412	888
Clinton Keith Road	West of Elizabeth Lane	69.9	98	211	454	978
Clinton Keith Road	East of Elizabeth Lane	69.9	98	212	457	984
Prielipp Road	East of Inland Valley Drive	64.6	RW	94	202	435
Prielipp Road	West of Elizabeth Lane	64.8	RW	97	210	451
Prielipp Road	East of Elizabeth Lane	66.0	54	116	250	540

Source: Urban Crossroads 2015a

1. Measurement from centerline

2. RW = location of the respective noise contour falls within the right-of-way of the road

**TABLE 3.9-22
YEAR 2035 WITH PROJECT CONDITIONS NOISE CONTOURS**

Road	Segment	CNEL at 100 Feet (dBA) ¹	Distance to Contour (feet) ¹			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
George Avenue	North of Clinton Keith Road	61.6	RW ²	59	128	275
Inland Valley Drive	South of Clinton Keith Road	65.3	RW	104	225	484
Elizabeth Lane	South of Clinton Keith Road	59.1	RW	RW	87	187
Elizabeth Lane	North of Prielipp Road	58.5	RW	RW	79	170
Clinton Keith Road	West of George Avenue	70.7	111	240	517	1,115
Clinton Keith Road	East of George Avenue	69.1	87	187	402	866
Clinton Keith Road	East of Inland Valley Drive	69.3	90	193	417	897
Clinton Keith Road	West of Elizabeth Lane	69.9	99	213	458	987
Clinton Keith Road	East of Elizabeth Lane	69.9	99	213	458	987
Prielipp Road	East of Inland Valley Drive	64.6	RW	94	203	437
Prielipp Road	West of Elizabeth Lane	64.8	RW	98	210	453
Prielipp Road	East of Elizabeth Lane	66.0	54	117	253	544

Source: Urban Crossroads 2015a

1. Measurement from centerline

2. RW = location of the respective noise contour falls within the right-of-way of the road

3.9 NOISE

**TABLE 3.9-23
YEAR 2035 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS**

Road	Segment	CNEL at 100 Feet (dBA)			Potential Significant Impact ¹
		No Project	With Project	Project Contribution	
George Avenue	North of Clinton Keith Road	61.5	61.6	0.1	No
Inland Valley Drive	South of Clinton Keith Road	65.3	65.3	0.0	No
Elizabeth Lane	South of Clinton Keith Road	58.5	59.1	0.6	No
Elizabeth Lane	North of Prielipp Road	58.2	58.5	0.3	No
Clinton Keith Road	West of George Avenue	70.7	70.7	0.0	No
Clinton Keith Road	East of George Avenue	69.0	69.1	0.1	No
Clinton Keith Road	East of Inland Valley Drive	69.2	69.3	0.1	No
Clinton Keith Road	West of Elizabeth Lane	69.9	69.9	0.0	No
Clinton Keith Road	East of Elizabeth Lane	69.9	69.9	0.0	No
Prielipp Road	East of Inland Valley Drive	64.6	64.6	0.0	No
Prielipp Road	West of Elizabeth Lane	64.8	64.8	0.0	No
Prielipp Road	East of Elizabeth Lane	66.0	66.0	0.0	No

Source: *Urban Crossroads 2015a*

1. For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0 dB, or greater, where the noise levels, without project implementation, are less than 60 dBA. Where the noise levels without project implementation range from 60-65 dBA, an increase of 3.0 dB or greater would be considered a substantial increase. Where the noise level without project implementation exceeds 65 dBA, an increase of 1.5 dB or greater would be considered a substantial increase.

Given that the proposed project would not result in a significant contribution to traffic noise levels above 1.5 dBA, the proposed project's cumulative contribution to ambient noise levels would be considered **less than cumulatively considerable**.

Mitigation Measures

None required.

3.9 NOISE

REFERENCES

- Caltrans (California Department of Transportation). 2002. *Transportation Related Earthborne Vibrations*.
- . 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*.
- EPA (US Environmental Protection Agency). 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*.
- FICON (Federal Interagency Committee on Noise). 2000. *Discussion of Methodologies of Measuring Noise Impact*.
- FTA (Federal Transit Administration). 2006. *Transit Noise and Vibration Impact Assessment*.
- OPR (State of California Office of Planning and Research). 2003. *General Plan Guidelines*.
- Urban Crossroads. 2015a. *"Horizons" (Prielipp Road, APN: 380-250-023) Noise Impact Analysis, City of Wildomar, California*.
- . 2015b. *"Horizons" (Prielipp Road, APN: 380-250-023) Traffic Impact Analysis, City of Wildomar, California*.
- Wildomar, City of. 2008. *City of Wildomar General Plan*.

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

This section describes the public services and utilities that would serve the Horizons Development Project upon its completion. Specifically, this section includes an examination of fire protection and emergency medical services, law enforcement services, public schools, water supply and service, wastewater services, solid waste services, and parks and recreation. Each subsection includes a description of existing facilities and infrastructure, applicable service goals, potential environmental impacts resulting from implementation of the proposed project, and cumulative impacts. This section also describes the existing setting for recreation and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the City's General Plan.

Impacts associated with the following public service and utility issues are addressed in other sections of this Draft EIR, as listed below.

- Storm drainage system, including potential overflow and downstream flooding impacts – Section 3.8, Hydrology and Water Quality
- Groundwater impacts, including water quality – Section 3.8, Hydrology and Water Quality
- Energy use, including energy demands associated with the proposed project – Section 5.0, Other CEQA Analysis

3.10.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

3.10.1.1 EXISTING SETTING

RIVERSIDE COUNTY FIRE DEPARTMENT

The Riverside County Fire Department (RCFD) provides fire protection and emergency medical services to an approximate 7,000-square-mile service area that includes Wildomar.

RCFD services include providing fire suppression, emergency medical, rescue, and fire prevention services. The department also serves as the operational area coordinator for the California Fire and Rescue Mutual Aid System for all fire service jurisdictions in Riverside County. The Riverside County Fire Department also has several automatic aid agreements with other municipal jurisdictions as well as with the adjacent National Forests. The County of Riverside contracts with the State of California for fire protection. Public Resources Code 4142 affords legal authority for the California Department of Forestry and Fire Protection (Cal Fire) to enter into agreements with local government entities to provide fire protection services with the approval of the California Department of General Services. By virtue of this authority, Cal Fire administers the Riverside County Fire Department.

The RCFD currently operates 94 fire stations in 17 battalions. These 94 fire stations are divided into two operational divisions: East Operations and West Operations. The two divisions comprise six subdivisions: Bautista, Indio, Moreno, Northwest, Oak Glen, and Southwest. Wildomar is located in the Southwest Division. The department consists of 1,033 career firefighters, 247 administrative support personnel, and 203 volunteer reserve firefighters who responded to 133,536 incidents in 2013, averaging 366 emergency responses per day (RCFD 2013).

The Southwest Division comprises four battalions and encompasses the southwestern portion of Riverside County from the San Diego county line to the south, to the southern edge of the City of Moreno Valley to the north, and east to the western portion of the Hemet Valley. Wildomar is

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

located in Battalion 2, which includes eight fire stations. The locations of the eight stations are listed below (RCFD 2013).

- Elsinore Fire Station #10, 410 West Graham Avenue, Lake Elsinore (battalion headquarters)
- Lakeland Village Fire #11, 33020 Maiden Lane, Lake Elsinore
- El Cariso Fire Station #51, 32353 Ortega Highway, Lake Elsinore
- Wildomar Fire Station #61, 32637 Gruwell Street, Wildomar
- Rancho Carrillo Fire Station #62, Lot #51, Verdugo Road, San Juan Capistrano (a volunteer station)
- Rancho Capistrano Fire Station #74, 35420 Calle Grande, Lake Elsinore (a volunteer station)
- McVicker Park Fire Station #85, 29405 Grand Avenue, Lake Elsinore
- Canyon Hills Fire Station #94, 22770 Railroad Canyon Road, Lake Elsinore

Station 61, located at 32637 Gruwell Street in Wildomar, serves the city. RCFD Station 75, located at 38900 Clinton Keith Road in Murrieta, Station 68, located at 26020 Wickard Road in Menifee, and Station 95, located at 22770 Railroad Canyon Road in Lake Elsinore, provide support to Station 61.

The City of Wildomar currently collects fire protection fees for the Riverside County Fire Department (described below). The fees collected are used to address future fire protection facilities and equipment needs.

3.10.1.2 REGULATORY FRAMEWORK

STATE

California Fire Code

The 2013 California Fire Code (Chapter 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

California Health and Safety Code

Additional state fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building and child-care facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Fighting Equipment, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

LOCAL

Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan

The Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan was prepared in 2012. The plan identifies the county's hazards, reviews and assesses past disaster occurrences, estimates the probability of future occurrences, and sets goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards for the County and Operational Area member jurisdictions, including Wildomar.

Riverside County Operational Area Emergency Operations Plan

The Riverside County Operational Area Emergency Operations Plan was prepared in 2006. The plan establishes the emergency organizational structure, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements using the Standardized Emergency Management System (SEMS). The objective of the Emergency Operations Plan is to incorporate and coordinate all the facilities and personnel of the County and Operational Area member jurisdictions, including Wildomar, into an efficient organization capable of responding effectively to any emergency. The Emergency Operations Plan is an extension of the State Emergency Plan.

Riverside County Fire Department Strategic Plan

The Riverside County Fire Department Strategic Plan covers fiscal years 2009–2029 (RCFD 2009). The plan describes the array of fire and rescue services provided to citizens, and it provides an evaluation of the current status of various commonly used service performance measures. The plan also makes recommendations for staffing, facilities, and station sites and remodels. The RCFD has a response time goal of 5 minutes within 1.5 miles, 7 minutes within 3 miles, 11 minutes within 5 miles, and 17 minutes within 8 miles.

Mutual Aid Agreements

Fire protection mutual aid is defined as an agreement between two fire agencies in which they commit to respond to calls for services in the other agency's jurisdiction when they are called, at no cost to the requesting agency. Not only is automatic aid predetermined but one or more additional departments are automatically dispatched to certain locations or types of alarms at the same time as the home department. Typically, both mutual and automatic aid agreements are written between the agencies.

The Riverside County Fire Department has four mutual aid and seven automatic aid agreements with other agencies. The specific agencies with which the County has current contracts for these services are listed in **Table 3.10.1-1**.

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

**TABLE 3.10.1-1
RCFD CONTRACTUAL AGREEMENTS**

Mutual Aid Agreements	Automatic Aid Agreements
City of Corona (Hazmat) Chuckawalla Valley State Prison Fire Department March Air Force Base Niland Fire District	City of Palm Springs Idyllwild Fire Protection District City of Hemet Morongo Band of Mission Indians City of Murrieta Orange County Fire Authority Pechanga Band of Luiseno Mission Indians

Source: RCFD 2009

Based on a recent administrative review of the RCFD’s mutual aid and automatic aid agreements, the agreements are virtually identical. However, the agreements do not include provisions for annual reviews by either party. Data regarding these agreements is tracked in terms of how many responses to calls were provided under each agreement during the year. Several of the agreements are over ten years old (e.g., Orange County Fire Authority agreement dated 1999 and Idyllwild Fire Protection District agreement dated 2000) (RCFD 2009).

City of Wildomar Municipal Code

Chapter 3.44, Fees, of the Wildomar Municipal Code states that all residential and nonresidential development projects are subject to development impact fees to mitigate the impacts of new development. Development impact fees finance public facilities and service improvements, including police and fire protection capital and facilities needs.

3.10.1.3 IMPACTS AND MITIGATION MEASURES

STANDARD OF SIGNIFICANCE

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. A fire protection and emergency services impact is considered significant if implementation of the proposed project would:

- 1) Create substantial adverse physical impacts associated with the provision of new or physically altered fire related facilities or services, the construction and/or provision of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services.

METHODOLOGY

Evaluation of potential fire protection and emergency medical service impacts was based on information provided by the Riverside County Fire Department, as well as a review of the applicable fire codes and regulations, the Wildomar General Plan and Municipal Code, and other relevant literature.

PROJECT IMPACTS AND MITIGATION MEASURES

Increased Demand for Fire Protection and Emergency Medical Services (Standard of Significance 1)

Impact 3.10.1.1 Implementation of the proposed project will result in the need for additional fire protection and emergency services in order to maintain acceptable service levels. The impact is considered **less than significant**.

The Riverside County Fire Department (RCFD) provides fire protection and safety services to the City of Wildomar. As previously stated, Station 61, located at 32637 Gruwell Street in Wildomar, serves the city. The proposed project will be served by Station 61, which is approximately 4.1 miles from the project site. In addition, RCFD Station 75, located at 38900 Clinton Keith Road in Murrieta, provides support to Station 61. RCFD Fire Station 75 (Bear Creek) is approximately 4 miles southwest of the project site, and would likely also respond to calls for service from the proposed project.

A condition of approval for the proposed project includes compliance with the requirements of the RCFD and the payment of standard development impact fees pursuant to Wildomar Municipal Code Section 3.44.080.

In addition, the proposed project would not result in the need for additional fire protection/emergency medical service personnel and facilities, the construction of which would cause an environmental impact. The 2013 RCFD annual report indicated that in Wildomar there were a total of 2,782 incidents in 2012 and 2,794 incidents in 2013. Considering the city's population, 32,718 in 2012 and 33,182 in 2013 (DOF 2014, 2015), these totals equate to one incident for every 11.76 people in 2012 and one incident for every 11.87 people in 2013. Considering the number of housing units in the city, there were 0.25 incidents per household in 2012 and 0.25 incidents per household in 2013. Completion of the proposed project will result in the construction of 138 residential units and a senior living facility. Since the proposed project will result in a permanent increase in the city's population, it will result in an increase in the number of people needing fire protection and emergency medical services provided by the RCFD. Considering the 2013 incident rate of 0.25 incidents per housing unit, the proposed project may be projected to generate approximately 48 annual incidents. An additional 48 incidents would represent a 0.01 percent increase in the number of incidents in the city.

Finally, Wildomar General Plan Policy S-5.1 directs the City to develop and enforce construction and design standards which ensure that proposed development incorporates fire prevention features through specified minimum standards and the inclusion of certain safety features. The proposed development would also be subject to compliance with the 2013 California Building Standards Code (or most current version) and 2013 California Fire Code (Part 9 of Title 24 of the California Code of Regulations), which would aid in reducing the demand on fire protection services by requiring fire protection detection systems, proper fire flow, and use of appropriate construction materials.

Considering the projected 0.01 percent increase in the number of incidents in Wildomar and the proposed project's required compliance with Wildomar General Plan Policy S-5.1, any impact would be **less than significant**.

Mitigation Measures

None required.

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

Adequate Fire Flow (Standard of Significance 1)

Impact 3.10.1.2 While implementation of the proposed project will result in the need for additional water supply, this additional need will not be sufficient to require the creation of additional water supply infrastructure. Implementation of the proposed project may result in additional need for water supply and infrastructure to provide adequate fire flows for fire protection. The provision of these facilities could cause environmental impacts. This is a **less than significant** impact.

The Riverside County Fire Department has established the following minimum requirements for fire protection facilities required by the proposed project:

- Type of fire hydrant and connection as approved by the agency providing fire protection.
- Approved fire hydrants shall be located one at each street intersection and spaced not more than 330 feet apart in any direction.
- The water system shall be capable of providing a fire flow of 1,000 gallons per minute (gpm) for 2 hours duration at a minimum of 20 pounds per square inch operating pressure from each fire hydrant. This amount shall be in addition to the average day demand as defined in the California Administrative Code, Title 22, Chapter 16 (California Waterworks Standards).
- The fire protection system shall be installed and operational prior to any combustible building material being placed on the job site.

The RCFD will further review the proposed project site plan for fire hydrant sizing and placement during the building permit and site review processes. Fire flow will be provided at the project site via future water lines and public hydrants along Prielipp Road.

Upon review and the necessary permit processing required by the Riverside County Fire Department and the Elsinore Valley Municipal Water District, this impact will be **less than significant**.

Mitigation Measures

None required.

3.10.1.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for fire protection and emergency medical services includes the proposed project site and the immediate surrounding areas. The cumulative setting includes all existing, planned, proposed, approved, and reasonably foreseeable development in the immediate area of the proposed project that could potentially place demand on fire protection and emergency medical services or could be expected to place demand on these services in the future.

Cumulative Demand for Fire Protection and Emergency Medical Services

Impact 3.10.1.3 Implementation of the proposed project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the immediate area, may increase the demand for fire protection and emergency medical services. However, given the requirement for CEQA review of future development, any necessary infrastructure or facilities expansion will be reviewed for potential impacts. Impacts related to the proposed project are **less than cumulatively considerable**.

As previously stated, the proposed project may be projected to generate approximately 48 annual incidents. An additional 48 incidents would represent a 0.01 percent increase in the number of incidents in the city. This increase is not considered substantial and this impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

3.10.2 LAW ENFORCEMENT SERVICES

3.10.2.1 EXISTING SETTING

Riverside County Sheriff's Department

The Riverside County Sheriff's Department (RCSD) provides law enforcement services to the City of Wildomar. Composed of 2,049 sworn officers and 1,808 civilian personnel, the RCSD is responsible for law enforcement services over a 7,300-square-mile area that includes the unincorporated areas of the county as well as 17 incorporated cities (RCSD 2015). The RCSD provides service through ten sheriff's stations; Wildomar is in the service area of the Lake Elsinore Station, which is located at 333 Limited Avenue in Lake Elsinore. Responses to calls for service are dispatched to the Lake Elsinore Station through the RCSD's central dispatch communication center located in Riverside.

3.10.2.2 REGULATORY FRAMEWORK

STATE

Emergency Response/Evacuation Plans

Government Code Section 8607(a) directs the Governor's Office of Emergency Services to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. The program is intended to provide effective management of multi-agency and multijurisdictional emergencies in California. SEMS consists of five organizational levels, which are activated as necessary: (1) Field Response, (2) Local Government, (3) Operational Area, (4) Regional, and (5) State.

Local governments must use the SEMS to be eligible for funding of their response-related personnel costs under state disaster assistance programs. The City of Wildomar is generally responsible for emergencies that occur within city boundaries and has adopted an Emergency Operations Plan that is consistent with the SEMS.

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

LOCAL

Riverside County Operational Area Emergency Operations Plan

The Riverside County Operational Area Emergency Operations Plan was prepared in 2006. This plan establishes the emergency organizational structure, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements using SEMS. The objective of the Emergency Operations Plan is to incorporate and coordinate all the facilities and personnel of the County and Operational Area member jurisdictions, including Wildomar, into an efficient organization capable of responding effectively to any emergency. The Emergency Operations Plan is an extension of the State of California Emergency Plan.

City of Wildomar Municipal Code

Chapter 3.44, Fees, of the Wildomar Municipal Code states that all residential and nonresidential development projects are subject to development impact fees to mitigate the impacts of new development. Development impact fees finance public facilities and service improvements, including police and fire protection capital and facilities needs.

City of Wildomar Emergency Plan

The objectives of the City's Emergency Plan (Ordinance No. 44) are to prepare for and facilitate coordinated and effective responses to emergencies in Wildomar and to provide adequate assistance to other jurisdictions as needed. The plan specifies actions for the coordination of operations, management, and resources during emergencies; governmental responsibilities during emergency events; and a plan for the organization of nongovernmental organizations providing support assistance.

3.10.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. A law enforcement services impact is considered significant if implementation of the proposed project would:

- 1) Create substantial adverse physical impacts associated with the provision of 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 law enforcement services.

METHODOLOGY

Evaluation of potential law enforcement impacts was based on information provided by the Riverside County Sheriff's Department, as well as review of the RCSD's staffing report and facilities needs assessment. The impact analysis focuses on whether impacts would have a significant effect on the physical environment.

PROJECT IMPACTS AND MITIGATION MEASURES

Increased Demand for Law Enforcement Services (Standard of Significance 1)

Impact 3.10.2.1 Implementation of the proposed project will not result in a significant increased demand for law enforcement services and will not result in the need for new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts. Therefore, this is a **less than significant** impact.

Police protection services are provided by the Riverside County Sheriff's Department (RCSD). The nearest sheriff's station is located at 333 Limited Street in Lake Elsinore, approximately 9.9 miles from the project site. Traffic enforcement is provided for Riverside County in this area by the California Highway Patrol, with additional support from the local Riverside County Sheriff's Department.

The City of Wildomar currently contracts for 40 hours of service per 24-hour day, which equates to one patrol officer on day shift, two patrol officers on swing shift, and one patrol officer on graveyard shift. For the purpose of establishing acceptable levels of service, the RCSD maintains a recommended ratio of 1.2 sworn law enforcement personnel for every 1,000 residents. As such, if and when law enforcement service needs increase as a result of incremental population increases in the city, and additional patrol hours are deemed necessary, they would be met through alteration of the contract agreement between the City and the RCSD. The proposed development will result in 138 townhomes, 54 assisted living units, and 32 skilled nursing units. The fiscal impact analysis prepared by the Natelson Dale Group (2014) estimates an increase in population of 2.5 persons per townhome and 1.2 persons per each assisted/skilled living unit. Considering this estimate, the project will result in 345 persons in townhomes and 104 persons in assisted/skilled living units. Considering the RCSD's recommended servicing level, the population increase resulting from the proposed project would require 0.4 additional sworn law enforcement personnel per the recommended ratio of 1.2 personnel for every 1,000 residents. This is not considered to be an increase substantial enough to result in the alteration of the contract agreement or the need for new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts. In addition, a standard condition of approval for the proposed project will require the project applicant to pay the standard development impact fees pursuant to Section 3.44.080 of the Wildomar Municipal Code. The proposed project is not expected to result in activities that create unusual police protection needs or significant impacts. Any impacts would be considered incremental and **less than significant**.

Mitigation Measures

None required.

3.10.2.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for law enforcement services includes the service area boundaries of the Riverside County Sheriff's Department. The RCSD provides services within the current Wildomar city limits, as well as to the surrounding unincorporated areas of Riverside County and 16 other

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

incorporated cities. The cumulative analysis includes all existing, planned, proposed, approved, and reasonably foreseeable development in the project area.

Cumulative Demand for Law Enforcement Services

Impact 3.10.2.2 Implementation of the proposed project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the RCSD service area, would increase the demand for law enforcement services. The project's contribution to the need for expanded law enforcement services is considered **less than cumulatively considerable**.

As previously stated, the population increase resulting from the proposed project would require 0.4 additional sworn law enforcement personnel per the recommended ratio of 1.2 personnel for every 1,000 residents. This is not considered to be an increase substantial enough to result in the need for new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts. This impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

3.10.3 PUBLIC SCHOOLS

3.10.3.1 EXISTING SETTING

LAKE ELSINORE UNIFIED SCHOOL DISTRICT

The Lake Elsinore Unified School District (LEUSD) was formed in 1989 and now serves a 131.78-square-mile area that includes Wildomar, Lake Elsinore, Canyon Lake, and several unincorporated communities, including Lakeland Village and Horsethief Canyon. The LEUSD operates 13 elementary schools, two K-8 schools, four middle schools, three comprehensive high schools, four alternative schools, and a virtual K-12 school. LEUSD schools are shown in **Table 3.10.3-1**.

**TABLE 3.10.3-1
LEUSD SCHOOLS**

Elementary Schools	
Cottonwood Canyon	Donald Graham
Earl Warren	Elsinore
Jean Hayman	Machado
Railroad Canyon	Rice Canyon
Ronald Reagan	Tuscany Hills
Wildomar	William Collier
Withdraw	
K-8 Schools	
Luiseno	Lakeland Village

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Middle Schools	
Canyon Lake	David A. Brown
Elsinore	Terra Cotta
High Schools	
Elsinore	Lakeside
Temescal Canyon	
Alternative Schools	
Gordon Kiefer Independent Study	Keith McCarthy Academy
Ortega High	Tri-Valley Community Day
Virtual K–12	
Southern California Online Academy	

Source: LEUSD 2015a

Charter Schools

Charter schools are public schools that are created or organized by a group of teachers, parents, community leaders, or a community-based organization. Charter schools may provide instruction in any grades K–12 and are generally sponsored by a local public school board or county board of education. Specific goals and operating procedures for the charter school are detailed in an agreement (or “charter”) between the sponsoring board and charter organizers. Public charter schools may not charge tuition and may not discriminate against any pupil on the basis of ethnicity, national origin, gender, or disability (CCSA 2012). The State of California charters one school in the Wildomar area: Sycamore Academy. Sycamore Academy was established in 2009, offers grades K–6, and serves the Wildomar community and the surrounding area.

Transportation

The LEUSD has approved the establishment of a fee-based transportation program in order to continue transportation services to eligible students. Kindergarten students are eligible for the transportation program (school buses) if they reside more than 0.75 mile from the school, elementary students beyond 1.5 miles, middle school students beyond 2.5 miles, and high school students beyond 3.5 miles from the school. Parents desiring transportation services to transport children from their homes to the school must apply for the service annually, receive district approval, and pay a \$170.00 semiannual fee.

Enrollment

Existing and Historical Enrollment

For the 2012–13 academic year, the Lake Elsinore Unified School District had an enrollment of 21,231 students. During the past ten years, the LEUSD’s enrollments have risen from 18,933 students in the 2002–03 school year to 21,231 students in academic year 2012–13, representing an overall increase of 18.4 percent. As shown in **Table 3.10.3-2**, while the district was rapidly growing earlier in the decade, growth in recent years has significantly slowed, and in 2012–13, enrollment declined.

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TABLE 3.10.3-2
LAKE ELSINORE UNIFIED SCHOOL DISTRICT ENROLLMENT 2002–03 THROUGH 2012–13

Academic Year	District Enrollment	Change from Previous Year	Percentage Change
2002–03	18,933	+ 1,164	6.6%
2003–04	19,711	+ 778	4.1%
2004–05	20,203	+ 492	2.5%
2005–06	20,652	+ 449	2.2%
2006–07	21,528	+ 876	4.2%
2007–08	22,109	+ 581	2.7%
2008–09	21,756	-353	-1.60%
2009–10	22,171	+ 415	1.9%
2010–11	22,065	-106	-0.5%
2011–12	22,171	+ 106	0.5%
2012–13	21,231	-940	-4.2%

Source: California Department of Education 2015

3.10.3.2 REGULATORY FRAMEWORK

STATE

Development Impact Fees/SB 50

Proposition 1A, the Kindergarten–University Public Education Facilities Bond Act of 1998, or Senate Bill (SB) 50, was approved by voters in November 1998. This proposition provided \$6.7 billion in general obligation bonds for K–12 public school facilities and provided the first funding for the new School Facility Program, which provides state funding assistance for new construction and modernization. A primary result of SB 50 was the creation of different levels of developer fees. The Lake Elsinore Unified School District currently levies development impact fees on development within the district’s boundaries consistent with SB 50. The current fees are \$3.20 per square foot for new residential development and \$0.51 per square foot for new commercial development (LEUSD 2015a).

3.10.3.3 IMPACTS AND MITIGATION MEASURES

STANDARD OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. A public schools impact is considered significant if implementation of the proposed project would:

- 1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause

significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

METHODOLOGY

To determine the level of impact the proposed project will have on the local public school system, the schoolchildren generation rates published by the Lake Elsinore Unified School District were used to predict how many children will be housed within the proposed project. The predicted numbers were then reviewed against both the current and historic enrollment numbers of the LEUSD to determine the significance of enrollment increases.

PROJECT IMPACTS AND MITIGATION MEASURES

Increased Demand for School Facilities (Standard of Significance 1)

Impact 3.10.3.1 The proposed project will result in slightly increased enrollment in the local school district. Any impact would be **less than significant**.

The project site is located in the Lake Elsinore Unified School District (LEUSD). The district has established school impact mitigation fees to address the facility impacts created by residential, commercial, and industrial development.

According to the LEUSD's (2015b) School Facilities Needs Analysis, the generation rates for single-family homes include 0.2877 per unit for elementary school (K-5), 0.1376 per unit for middle school (grades 6-8), and 0.1702 per unit for high school (grades 9-12). Based on these rates, the project will generate 39 elementary school students, 19 middle school students, and 23 high school students, for a total of 81 students. As of the 2012-13 academic year, the LEUSD enrolled 21,231 students. The previous year, 2011-12, the LEUSD enrolled 22,171 students. The additional 81 students will not exceed district enrollment in previous academic years. Furthermore, the proposed project will represent an increase in current LEUSD enrollment of less than 1 percent.

Current state law requires that impacts to current school facilities be mitigated through mandatory development impact fees. The fees enacted within the LEUSD of \$3.20 per square foot of residential development and \$0.51 per square foot of commercial development will be collected for the proposed project. Therefore, this impact will be **less than significant**.

Mitigation Measures

None required.

3.10.3.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for public school impacts includes the district boundaries for the LEUSD for public school services. The LEUSD serves a 131.78-square-mile area that includes Wildomar, including the proposed project site. Any existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting could result in cumulative impacts.

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CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Schools Impacts

Impact 3.10.3.2 The proposed project will result in a slight increase in population and will result in population growth when developed in conjunction with other existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting. The cumulative impacts are **less than significant**.

Implementation of the proposed project will result in population growth that would increase student enrollment in the Lake Elsinore Unified School District. In addition, the proposed project will be required to pay all applicable development impact fees. Any significant expansion of LEUSD school facilities or development of new school facilities would be subject to the appropriate CEQA environmental review, which would identify any site-specific impacts and provide mitigation to reduce those impacts. Therefore, cumulative impacts on school facilities are considered **less than cumulatively considerable**.

Mitigation Measures

None required.

3.10.4 WATER SUPPLY AND SERVICE

3.10.4.1 EXISTING SETTING

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

The Elsinore Valley Municipal Water District (EVMWD) is a nonprofit public utility supplying water service to 35,000 water, wastewater, and agricultural service connections in the region as well as to two water agencies: the Farm Mutual Water Company and the Elsinore Water District (EVMWD 2012). The EVMWD is a subagency of the Western Municipal Water District, a member agency of the Metropolitan Water District of Southern California. The EVMWD serves the cities of Lake Elsinore, Canyon Lake, Murrieta, and Wildomar and the surrounding areas in unincorporated Riverside County. The EVMWD's water supply is a blend of local groundwater, surface water from Railroad Canyon Reservoir, and imported water. In an average year, approximately half of the EVMWD's water supply is imported, and the district's total water production equals approximately 27,000 acre-feet (EVMWD 2012).

3.10.4.2 REGULATORY FRAMEWORK

LOCAL

In order to comply with the Urban Water Management Planning Act of the California Water Code, the Elsinore Valley Municipal Water District prepared the Urban Water Management Plan. The most recent Urban Water Management Plan (UWMP) prepared by the EVMWD was adopted on June 9, 2011. The purpose of a UWMP is to determine the current levels of water use and to predict and plan for future water demand. The information contained in the EVMWD Urban Water Management Plan includes the water usage and predicted water demand of the service area of the Farm Mutual Water Company.

3.10.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. A water service impact is considered significant if implementation of the proposed project would:

- 1) Result in the need for new entitlements or a substantial expansion or alteration to local or regional water supplies that would result in a physical impact to the environment.
- 2) Result in the need for new systems or a substantial expansion or alteration to the local or regional water treatment or distribution facilities that would result in a physical impact to the environment.
- 3) 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).

As previously mentioned, water quality impacts are discussed in Section 3.8, Hydrology and Water Quality.

METHODOLOGY

To determine the potential impact the proposed project may have on local water supplies and potable water distribution facilities, information regarding current water use and predicted water demands in the 2011 EVWMD Urban Water Management Plan was referenced. In addition, the development standards of the Western Municipal Water District were reviewed and used to determine the proposed project's potential water demand. Documents and planning criteria of the local water agency, the Elsinore Valley Municipal Water District, were also reviewed and used to determine impacts.

PROJECT IMPACTS AND MITIGATION MEASURES

Water Supply Demand and Environmental Effects (Standards of Significance 1 and 3)

Impact 3.10.4.1 Implementation of the proposed project will slightly increase demand for water supply, which could result in effects on the physical environment. However, adequate water supply sources exist, and the proposed project's and the Elsinore Valley Municipal Water District's water conservation provisions would ensure adequate water service. This is considered a **less than significant** impact.

The EVMWD obtains its potable water supplies from imported water from the Metropolitan Water District and local surface water from Canyon Lake. In addition, the EVMWD has access to groundwater from the Elsinore Basin, Coldwater Basin, San Bernardino Bunker Hill Basin, Rialto-Colton Basin, and Riverside-North Basin. Almost all of the groundwater production for potable use occurs in the Elsinore Basin. Through recharge programs run by the EVMWD, the amount of annual groundwater pumping is nearly equal to the natural recharge (EVMWD 2011). California Department of Water Resources, Bulletin 118, does not identify the Elsinore Basin to be in a state

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of overdraft (EVMWD 2011). Imported water supply is purchased from the Metropolitan Water District via the Eastern Municipal Water District and the Western Municipal Water District.

The EVMWD's existing recycled water demands are supplied by tertiary treated wastewater from the Regional Water Reclamation Facility (WRF), Railroad Canyon WRF, and Horsethief Canyon WRF. In the effort to minimize the need for imported water, the EVMWD plans to expand its recycled water system to provide recycled water for irrigation users and to maintain water levels in Lake Elsinore during normal and dry years.

The EVMWD's 2011 Urban Water Management Plan reports that the average daily per capita water use within its service area from 1999 to 2008 was 248 gallons per capita per day (base daily rate). Conservatively, the proposed project would result in 449 new people in the EVMWD service area, which would result in a residential water demand of 111,352 gallons per day, or approximately 124 acre-feet per year.

The Comprehensive Annual Financial Report produced by the EVMWD (2014) states that the district produced 26,055 acre-feet of water in fiscal year 2014 (July 1, 2013, through June 30, 2014). The report further states that of the 26,055 acre-feet of water produced, a total of 25,375 acre-feet of water was consumed. For the past ten years, the EVMWD has produced an average of approximately 27,235 acre-feet. During that same period, the lowest amount of water consumed by EVMWD customers was 23,046 acre-feet in 2011 and the highest amount of was 34,016 acre-feet in 2007.

With estimated water consumption of 124 acre-feet annually, the proposed project will represent an increase in water consumption by the EVMWD of 0.5 percent in years of low water consumption, 0.4 percent in years of high water consumption, and 0.5 percent over the historic average water consumption of the EVMWD's customers.

Considering the current estimations that were determined by utilizing the EVMWD and Western Municipal Water District water consumption assumptions, the proposed project will increase regional water consumption by less than 1 percent. This impact is **less than significant**.

Mitigation Measures

None required.

Water Supply Infrastructure (Standard of Significance 2)

Impact 3.10.4.2 Implementation of the proposed project would increase demand for water supply and thus require additional water supply infrastructure that could result in a physical impact to the environment. This is considered a **less than significant** impact.

The Elsinore Valley Municipal Water District has reviewed the proposed project and determined that the district can provide water to the proposed project. As noted above, the amount of water provided to the project is considered a small increase in the amount currently provided to the area. The EVMWD will be able to supply the estimated increase in the amount of water required by the proposed project. Other than the connection of the proposed project to existing water lines in Prielipp Road, the EVMWD has indicated that no other improvements to the water treatment or delivery system are necessary. The impacts of the proposed project on the water treatment and delivery system are **less than significant**.

Mitigation Measures

None required.

3.10.4.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for water services, including supplies and related infrastructure, consists of Elsinore Valley Municipal Water District boundaries, as well as other areas obtaining water from the Western Municipal Water District.

The cumulative setting includes all existing, planned, proposed, approved, and reasonably foreseeable development in the EVMWD service area and the larger service area of the Western Municipal Water District.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Water Supply Impacts

Impact 3.10.4.3 Implementation of the proposed project, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development within the cumulative setting, would increase the cumulative demand for water supplies. However, this increased demand will not be sufficient to lead to a requirement for new water facilities and related infrastructure. The project’s contribution to cumulative water supply and infrastructure impacts is considered **less than cumulatively considerable**.

To determine future water demands in its service area, the EVMWD based the predictions contained in the 2011 UWMP on the existing year (2010) demands calculated as a product of the 2010 population and the 10-year baseline per capita water use. Starting in 2020, future demands were calculated as the product of the population, and the target water use (240 gallons per capita per day) was established for the EVMWD using the summation of three performance standards: indoor residential use, outdoor residential use, and commercial, industrial use, and institutional use. Water demand for 2015 was calculated as halfway between the usage in 2010 and 2020. Water use projections for years 2015, 2020, 2025, 2030, and 2035 are presented in **Table 3.10.4-1**.

**TABLE 3.10.4-1
EVMWD DEMAND ASSUMPTIONS AND PREDICTIONS**

Projections	2015	2020	2025	2030	2035
Population of service area	136,133	149,852	162,626	174,579	185,102
Employment	24,699	27,458	32,272	37,086	41,900
Housing	46,388	51,297	55,774	59,921	63,888
EVMWD water deliveries (acre-feet per year)	37,292	40,338	43,777	46,995	49,827
Total water sales to the Farm Mutual Water Company (acre-feet per year)	501	542	588	631	669

Source: EVMWD 2011

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As previously stated, the proposed project will represent an increase in water consumption by the EVMWD of 0.5 percent in years of low water consumption, 0.4 percent in years of high water consumption, and 0.5 percent over the historic average water consumption of the EVMWD's customers. Considering the current estimations that were determined by utilizing the EVMWD and Western Municipal Water District water consumption assumptions, the proposed project will increase regional water consumption by less than 1 percent. This impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

3.10.5 WASTEWATER SERVICES

3.10.5.1 EXISTING SETTING

The Elsinore Valley Municipal Water District maintains facilities to convey, treat, and dispose of municipal wastewater generated in a 96-square-mile area of western Riverside County. This service area includes the area of the proposed project and much of Wildomar, among other jurisdictions.

The EVMWD currently operates three wastewater treatment facilities: the Regional Wastewater Treatment Plant (WWTP), the Horsethief Canyon WWTP, and the Railroad Canyon WWTP. In addition, flow in the southern part of the EVMWD's service area is treated at the Santa Rosa Water Reclamation Facility operated by the Rancho California Water District. These four treatment plants serve four major service areas in the EVMWD's wastewater collection system. Each service area consists of gravity collectors, trunk lines, lift stations, and force mains, which convey flow to the treatment plants. The regional area contains 21 lift stations, the Canyon Lake area contains 7 lift stations, and the Horsethief area contains 2 lift stations. A large portion of the EVMWD's wastewater collection system consists of collector and trunk sewer lines with diameters ranging from 8 to 15 inches. In addition to these collector and trunk lines, the EVMWD has two major interceptor sewers ranging in size from 12 to 27 inches in diameter. The EVMWD's system also contains 30 force mains, with diameters ranging in size from 4 to 16 inches.

3.10.5.2 REGULATORY FRAMEWORK

FEDERAL

Clean Water Act

The Clean Water Act (CWA) is the primary federal legislation governing surface water quality protection. The statute employs a variety of regulatory and nonregulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. Pollutants regulated under the CWA include "priority" pollutants, including various toxic pollutants; "conventional" pollutants, such as biochemical oxygen demand, total suspended solids, fecal coliform, oil and grease, and Ph; and "non-conventional" pollutants, including any pollutant not identified as either conventional or priority. The CWA regulates both direct and indirect discharges (EPA 2015).

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) program, Section 402 of the CWA, controls direct discharges into navigable waters. Direct discharges, or point source discharges, are from sources such as pipes and sewers. NPDES permits, issued by either the US Environmental Protection Agency (EPA) or an authorized state/tribe, contain industry-specific, technology-based, and/or water-quality-based limits and establish pollutant monitoring and reporting requirements. (The EPA has authorized 40 states to administer the NPDES program, including California, under which the regional boards administer the NPDES program.) A facility that intends to discharge into the nation's waters must obtain a permit before initiating a discharge. A permit applicant must provide quantitative analytical data identifying the types of pollutants present in the facility's effluent and the permit will then set forth the conditions and effluent limitations under which a facility may make a discharge (EPA 2015).

STATE

Porter-Cologne Water Quality Act

In 1969, the California legislature enacted the Porter-Cologne Water Quality Control Act to preserve, enhance, and restore the quality of the state's water resources. The act established the State Water Resources Control Board and the nine Regional Water Quality Control Boards as the principal state agencies with the responsibility for controlling water quality in California. Under the act, water quality policy is established, water quality standards are enforced for both surface water and groundwater, and the discharges of pollutants from point and nonpoint sources are regulated. The act authorizes the SWRCB to establish water quality principles and guidelines for long-range resource planning including groundwater and surface water management programs and control and use of recycled water (DOE 2015).

State Water Resources Control Board

Created by the California legislature in 1967, the five-member State Water Resources Control Board (SWRCB) allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine Regional Water Quality Control Boards located in the major watersheds of the state. The joint authority of water allocation and water quality protection enables the SWRCB to provide comprehensive protection for California's waters (SWRCB 2015).

The SWRCB is responsible for implementing the Clean Water Act and issues NPDES permits to cities and counties through Regional Water Quality Control Boards (RWQCBs). Wildomar is located in the jurisdiction of two RWQCBs: the San Diego RWQCB (Region 9) and the Santa Ana RWQCB (Region 8). The proposed project is specifically within the San Diego Regional Water Quality Control Board (SDRWQCB).

REGIONAL

San Diego Regional Water Quality Control Board

The SDRWQCB provides planning, monitoring, and enforcement techniques for surface water and groundwater quality in San Diego County and western Riverside County, including in Wildomar and the surrounding area. The SDRWQCB develops and enforces water quality objectives and implements plans that will best protect the area's waters while recognizing local differences in climate, topography, geology, and hydrology. The RWQCB also protects and

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enforces the many uses of water, including the needs of industry, agriculture, municipal districts, and the environment (SDRWQCB 2015).

Water Reuse Requirements (Permits)

The SDRWQCB issues water reuse requirements (permits) for projects that reuse treated wastewater. These permits include water quality protections as well as public health protections by incorporating criteria established in Title 22. The SDRWQCB may incorporate requirements into the permit in addition to those specified in Title 22. These requirements typically include periodic inspection of recycled water systems, periodic cross-connection testing, periodic training of personnel that operate recycled water systems, maintaining a database and/or permitting individual use sites, periodic monitoring of recycled water and groundwater quality, and periodic reporting.

Waste Discharge Requirements

The San Diego Regional Water Quality Control Board typically requires a waste discharge requirement (WDR) permit for any facility or person discharging or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system. Those discharging pollutants (or proposing to discharge pollutants) into surface waters must obtain an NPDES permit from the SDRWQCB. The NPDES permit serves as the WDR permit. For other types of discharges, such as those affecting groundwater or in a diffused manner (e.g., erosion from soil disturbance or waste discharges to land), a Report of Waste Discharge must be filed with the SDRWQCB in order to obtain a WDR permit. For specific situations, the RWQCB may waive the requirement to obtain a WDR permit for discharges to land or may determine that a proposed discharge can be permitted more effectively through enrollment in a general NPDES permit or general WDR permit (SDRWQCB 2015).

LOCAL

Wastewater Master Plan

The EVMWD's (2008) Wastewater Master Plan evaluates the capacity of the district's wastewater collection system during peak wet weather flows and describes current services and plans to connect currently unserved areas and future development areas to the district's sanitary sewer system. The plan provides a detailed capital improvement program for the necessary improvements to the existing wastewater collection system facilities and improvements needed for future growth, as well as a detailed cost summary and implementation plan.

3.10.5.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following standards are based on CEQA Guidelines Appendix G. A significant impact to wastewater service would occur if implementation of the proposed project would:

- 1) 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.

- 2) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

METHODOLOGY

Evaluation of potential impacts on wastewater facilities and services was based on the Elsinore Valley Municipal Water District's 2011 Urban Water Management Plan and 2008 Wastewater Master Plan. Wastewater demand projections, as well as infrastructure conditions and needs, discussed in these documents were compared to potential impacts resulting from development of the proposed project.

PROJECT IMPACTS AND MITIGATION MEASURES

Waste Discharge Requirements and Conveyance and Treatment Standards (Standards of Significance 1 and 2)

Impact 3.10.5.1 Implementation of the proposed project will not result in wastewater discharge that would exceed the wastewater treatment requirements of the San Diego Regional Water Quality Control Board. This impact is considered **less than significant**.

The proposed project will include connection to the EVMWD wastewater system via an 8-inch sewer pipe in Prielipp Road and Elizabeth Lane.

The EVMWD currently operates three wastewater treatment facilities: the Regional WWTP, the Horsethief Canyon WWTP, and the Railroad Canyon WWTP. In addition, flow in the southern part of the EVMWD's service area is treated at the Santa Rosa Water Reclamation Facility operated by the Rancho California Water District. The proposed project will be within the Regional WWTP service area, which has its wastewater conveyed by 24 lift stations and treated by the Regional Water Reclamation Facility (EVMWD 2008).

An estimated increase in demand for wastewater facilities as a result of the project can be predicted based on anticipated increases in population and wastewater demand rates per capita. According to the EVMWD's Design Standards and Standard Drawings (2013, Section 2, p. 18), the district has a current baseline wastewater flow rate of 100 gallons per capita per day. Based on this baseline rate, the proposed project would result in an increased demand for wastewater treatment by approximately 44,900 gallons per day. Of the 24 lift stations operating with the Regional WRF service area, wastewater produced by the proposed project will be drawn by the B-2 Regional Lift Station, which includes three 25-horsepower pumps and has a firm capacity (the capacity of the lift station with the largest pump out of service) of 3,456,000 gallons per day. Therefore, the projected increase in wastewater as a result of the project would represent an increase of 1.3 percent of the existing capacity of the WRF.

In addition, according to the EVMWD Design Standards and Standard Drawings (2013), the district conducts a wastewater system analysis review for each new development project to determine the backbone infrastructure needs on a case-by-case basis, and any needed facilities as determined by the EVMWD are included in a development agreement for each project.

As stated, the proposed project will increase wastewater generation by 1.3 percent. Furthermore, the EVMWD wastewater system analysis review will ensure that the water district has

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adequate infrastructure to meet the demand associated with the project before it is developed. This impact is **less than significant**.

Mitigation Measures

None required.

3.10.5.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The EVMWD's (2008) Wastewater Master Plan analyzes current and future wastewater demand by developing projections for average dry weather flows, average wet weather flows, and peak wet weather flows. These projections are based on past wastewater demands and population growth estimates. Of the three projection categories—average dry weather flows, average wet weather flows, and peak wet weather flows—the peak wet weather flow projection is the most conservative in that it anticipates the highest volume of wastewater flow. The peak wet weather wastewater flows in the Regional Wastewater Treatment Plant service area are predicted to be 15.3 million gallons per day.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Wastewater Service Impacts

Impact 3.10.5.2 Implementation of the proposed project, along with other existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting, would contribute to the cumulative demand for wastewater service. However, continued implementation of EVMWD standards would ensure adequate wastewater facilities are provided. This impact is considered to be **less than cumulatively considerable**.

The proposed project will construct all of the wastewater collection systems necessary to meet its needs. No future phases of the project will require additional wastewater collection or treatment facilities. Therefore, the proposed project would not contribute to cumulative wastewater infrastructure impacts, and this impact is considered **less than cumulatively considerable**.

Mitigation Measures

None required.

3.10.6 SOLID WASTE SERVICES

3.10.6.1 EXISTING SETTING

Solid waste services for the proposed project site would be provided by contract with Waste Management of the Inland Empire. Waste Management currently serves over 220,000 residents by disposing of over 17,000 tons of waste on a weekly basis.

Solid waste collection from the region is trucked to the Moreno Valley Transfer Station, which is owned and operated by Waste Management and which also serves as a component of the Riverside County Waste Management Department's (RCWMD) network of solid waste facilities. The transfer station is located approximately 25 miles from the proposed project site at 17700

Indian Street in Moreno Valley. Following collection at the transfer station, the waste is taken to one of three landfills: El Sobrante, Lamb Canyon, or Badlands. The El Sobrante Landfill (CalRecycle Solid Waste Information System Number 33-AA-0217), which is owned and operated by USA Waste Services of California, is the facility closest to and most likely to receive waste from the project site. The other two landfills are owned and operated by the County of Riverside.

Solid waste collection and disposal is funded through monthly service fees paid by service users. Funding options support disposal sites, diversion activities, public education programs, hazardous waste collection, and transportation programs, along with other requirements of state and federal laws. Other fees are provided by a surcharge on residential collection bills for recycling programs, tipping fees, the sale of recyclables, waste hauler franchise fees, special programs (recycling and hazardous materials), and grants (RCWMD 2015).

3.10.6.2 REGULATORY FRAMEWORK

FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), an amendment to the Solid Waste Disposal Act of 1965, was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. The RCRA gives the US Environmental Protection Agency the authority to control hazardous waste from “cradle to grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also sets forth a framework for the management of nonhazardous solid wastes. The federal Hazardous and Solid Waste Amendments are the 1984 amendments to the RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program. Amendments to the RCRA in 1986 enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances (EPA 2015).

STATE

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (Public Resources Code Section 42900–42927) requires all California cities and counties to reduce the volume of waste deposited in landfills by 50 percent by the year 2000 and continue to remain at 50 percent or higher for each subsequent year. The purpose of this act is to reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible.

The California Integrated Waste Management Act requires each city and county in the state to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle) a source reduction and recycling element (SRRE) that demonstrates how the jurisdiction will meet the act’s mandated diversion goals. Each jurisdiction’s SRRE must include specific components, as defined in Public Resources Code Sections 41003 and 41303. In addition, the SRRE must include a program for management of solid waste generated in the jurisdiction that is consistent with the following hierarchy: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. Included in this

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hierarchy is the requirement to emphasize and maximize the use of all feasible source reduction, recycling, and composting options in order to reduce the amount of solid waste that must be disposed of by transformation and land disposal (Public Resources Code Sections 40051, 41002, and 41302) (CalRecycle 2013).

REGIONAL

Riverside County Waste Management Department

The RCWMD is responsible for the landfilling of nonhazardous county waste. In this effort, the RCWMD operates six landfills and has a contract agreement for waste disposal with an additional private landfill; it also administers several transfer station leases. The RCWMD ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal.

LOCAL

Wildomar Source Reduction and Recycling Element

On April 27, 2011, the City of Wildomar adopted its Source Reduction and Recycling Element, which is required to fulfill the requirements of the California Integrated Waste Management Act of 1989. The law requires that all cities and counties in California divert 50 percent of the total waste generated within their jurisdiction from landfill disposed annually by the year 2000. The adopted element includes a Source Reduction and Recycling Element, a Household Hazardous Waste Element, and a Non-Disposal Facility Element. Waste Management of the Inland Empire is the solid waste hauler under contract to the City of Wildomar.

City of Wildomar Municipal Code

Title 8, Health and Safety, of the Wildomar Municipal Code sets forth the City's solid waste provisions, including restrictions on disposing of any garbage, rubbish, or waste matter in the city other than at a disposal site established by the City Council or designated by the City Manager, prohibitions on solid waste collectors disposing of recyclable materials, and restrictions on accumulation of solid waste on residential properties.

3.10.6.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G. A solid waste impact is considered significant if implementation of the proposed project would:

- 1) Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- 2) Fail to comply with federal, state, and local statutes and regulations related to solid waste.

METHODOLOGY

Evaluation of potential solid waste service impacts was based on information from the CalRecycle website. The capacity of landfills and other solid waste facilities was evaluated based on reporting from CalRecycle.

PROJECT IMPACTS AND MITIGATION MEASURES

Increased Solid Waste Disposal (Standard of Significance 1)

Impact 3.10.6.1 Implementation of the proposed project will generate increased amounts of solid waste that will need to be disposed of in landfills or recycled. This impact is considered **less than significant**.

Implementation of the proposed project will result in an additional 449 new residents who will generate solid waste that will require disposal and recycling. CalRecycle provides unofficial estimates of solid waste generation and disposal rates for five different land use or business types: commercial, industrial, institutional, residential, and service.

The solid waste generated as a result of the proposed project is expected to be sent to the El Sobrante Landfill. Assuming that each person generates 0.41 tons of solid waste each year, as estimated by CalRecycle (2009) for Riverside County residents, the project would create an additional 184 tons of solid waste per year (0.5 tons per day) (449 additional residents x 0.41 = 184). The estimated amount of generated solid waste would not exceed the landfill's maximum permitted disposal as the El Sobrante Landfill has a processing capacity of 16,054 tons of waste per day. Therefore, the El Sobrante Landfill would be able to accommodate waste generated under the project's projected growth rate. As identified above, adequate landfill capacity is available to meet the needs of the proposed project. This impact would be considered **less than significant**.

Mitigation Measures

None required.

Compliance with Federal, State, and Local Statutes for Solid Waste (Standard of Significance 2)

Impact 3.10.6.2 The proposed project would not fail to comply with federal, state, and local statutes and regulations related to solid waste. This impact is considered **less than significant**.

Wildomar Municipal Code Title 8, Chapter 8.20 regulates refuse disposal sites in Wildomar. Section 8.20.050 requires that each solid waste facility operator perform random load checks across load types of residential, commercial, and industrial to detect hazardous waste before such incoming waste is transferred to and/or disposed at the landfill. The goals of the ordinance and check program are to (1) prevent hazardous waste from being placed in a landfill not permitted to receive such waste, and (2) educate and discourage customers from bringing in such material. The code mandates the number of checks per day, depending on the daily tonnage. The load checks are random and an inspection form is required for each check. Chapter 8.104 mandates that solid waste be collected in the city and establishes the methodology and timing for collection. Because it is required by comply with the SRRE and City ordinances, the proposed project will comply with federal, state, and local regulations regarding solid waste. This impact is considered **less than significant**.

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

Mitigation Measures

None required.

3.10.6.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for solid waste includes all existing, planned, proposed, approved, and reasonably foreseeable development in Riverside County. Future development associated with the proposed project, as well as in the surrounding region, would result in an increased cumulative demand for solid waste collection and disposal in regional landfills.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Solid Waste Impacts

Impact 3.10.6.3 Implementation of the proposed project, along with other existing, planned, proposed, approved, and reasonably foreseeable development in the region, would result in increased demand for solid waste services. This impact is **less than cumulatively considerable**.

The proposed project, when considered with all existing, planned, proposed, approved, and reasonably foreseeable development in the region, will not produce a significant amount of solid waste. Any impact would be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.10.7 PARKS AND RECREATION

3.10.7.1 EXISTING SETTING

Wildomar owns and manages three public parks—Marna O’Brien Park, Regency Heritage Park, and Windsong Park—which encompass approximately 14 acres.¹ In addition to the 14 acres of public parks, the city has approximately 307 acres of land dedicated to open space recreation and 221 acres of land dedicated to open space conservation. A summary of the park and open space acreages in Wildomar is shown in **Table 3.10.7-1**.

¹ In August 2012, the City stopped funding Regency Heritage and Windsong Park, making both facilities nonoperational. However, on November 6, 2012, Wildomar residents approved a \$28 annual parcel tax (Measure Z) to assist in the funding of park operations and related park activities as noted in the measure. The special tax went into effect July 1, 2013. The City is in the process of restoring and reopening the parks.

**TABLE 3.10.7-1
PARK AND OPEN SPACE FACILITIES**

Open Space	Acreage
Mama O'Brien Park	8.94
Regency Heritage Park	3.26
Windsong Park	2.07
Open Space – Recreation	306.93
<i>Park and Open Space - Recreation Subtotal</i>	<i>321.20</i>
Open Space – Conservation	220.92
Total Open Space Acreage	542.12

Source: Colgan 2012

Wildomar's Municipal Code includes an open space requirement of 3 acres of neighborhood and community parkland per 1,000 residents. According to Section 16.20.020.D of the Wildomar Municipal Code, a park is defined as a parcel or parcels of land, exclusive of conserved open space, which is open and available for use by the general public and which serves the recreational needs of the public. As of 2015, Wildomar's estimated population is 34,148, which results in a parkland demand of approximately 102 acres. As demonstrated in **Table 3.10.7-1**, the city currently has approximately 321 acres of parkland and recreational open space, which exceeds the amount of parkland required per the Municipal Code by approximately 219 acres.

3.10.7.2 REGULATORY FRAMEWORK

STATE

Quimby Act

The goal of the 1975 Quimby Act (California Government Code Section 66477) was to require developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The Quimby Act gave authority for passage of land dedication ordinances only to cities and counties, thus requiring special districts to work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide parks and recreation services community-wide. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities (Westrup 2002).

Originally, the Quimby Act was designed to ensure "adequate" open space acreage in jurisdictions adopting Quimby Act standards (e.g., 3–5 acres per 1,000 residents). In some California communities, the acreage fee was very high where property values were high, and many local governments did not differentiate on their Quimby fees between infill projects and greenbelt developments. In 1982, the Quimby Act was substantially amended via Assembly Bill (AB) 1600. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied (nexus) to a project's impacts as identified through traffic studies required by CEQA. In other words, AB 1600 requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or park land

3.10 PUBLIC SERVICES, UTILITIES, AND RECREATION

and the type of development project upon which the fee is imposed (Westrup 2002). Cities or counties with a high ratio of parkland to inhabitants can set a standard of 5 acres per 1,000 residents for new development. Cities or counties with a lower ratio can only require the provision of up to 3 acres of parkland per 1,000 residents. The calculation of a city's or county's parkland-to-population ratio is based on a comparison of the population count of the last federal census to the amount of city- or county-owned parkland.

LOCAL

Wildomar Community Services Department

The City of Wildomar Community Services Department oversees the development and maintenance of local parks and assists in coordinating disaster preparedness programs. Open space in the city is maintained by private landowners or associations.

City of Wildomar Municipal Code

Chapter 16.20 of Title 16 requires fees in lieu of dedication or dedication of parkland at a ratio of 3 acres per 1,000 residents. The code defines a park as a parcel or parcels of land, exclusive of natural open space, which is open and available for use by the general public and which serves the recreational needs of the public.

3.10.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. A park and recreation impact is significant if implementation of the proposed project would:

- 1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- 2) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

METHODOLOGY

Evaluation of the proposed project was based on review of the current facilities and the City's Municipal Code. This material was compared to the proposed project's specific park and recreation service-related impacts. The impact analysis below focuses on whether those impacts would have a significant effect on the physical environment.

PROJECT IMPACTS AND MITIGATION MEASURES

Increased Demand for Parks and Recreation Facilities (Standards of Significance 1 and 2)

Impact 3.10.7.1 Implementation of the proposed project would result in a population increase of approximately 449 residents and would increase demand for city parks and recreation facilities. There will be a **less than significant** impact to parks and recreation facilities.

As previously stated, Wildomar's Municipal Code includes an open space requirement of 3 acres of neighborhood and community parkland per 1,000 residents. The project will result in 345 persons in townhomes and 104 persons in assisted/skilled living units for a total of approximately 449 new residents, which equates to the need for 1.3 additional acres of parkland and/or recreation facilities. However as previously described, the City's current parkland and recreational open space inventory includes 321 acres, which would equal a surplus of 217 acres after implementation of the project. Furthermore, the proposed project includes construction of private recreational facilities, including a pool and clubhouse. Private open space courtyards will also be constructed in the senior housing areas. Therefore, the proposed project would not result in the need for the construction of additional neighborhood and regional parks or other recreational facilities. Additionally, prior to issuance of any building permit, the project applicant must pay the required development impact fees for parkland pursuant to Municipal Code Section 16.20.020 and in effect at the time of building permit issuance. The proposed project would result in a **less than significant** demand for City parks and recreation facilities.

Mitigation Measures

None required.

3.10.7.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for parks and recreation consists of the City of Wildomar's jurisdictional boundary, which encompasses 13.2 square miles. Any existing, planned, proposed, approved, and reasonably foreseeable development in the city could contribute to cumulative impacts.

Cumulative Park and Recreation Demands

Impact 3.10.7.2 Implementation of the proposed project, along with other existing, planned, proposed, approved, and reasonably foreseeable development, would increase the use of existing parks and would require additional park and recreation facilities within the cumulative setting, the provision of which could have an adverse physical effect on the environment. This would be a **less than cumulatively considerable** impact.

The City's current parkland and recreational open space inventory includes 321 acres, which would equal a surplus of 217 acres after implementation of the project. Furthermore, the proposed project includes construction of private recreational facilities, including a pool and a clubhouse. Private open space courtyards will also be constructed in the senior housing areas. Therefore, the proposed project would not result in the need for the construction of additional neighborhood and regional parks or other recreational facilities. Additionally, prior to issuance of any building permit, the project applicant must pay the required development impact fees for parkland pursuant to Municipal Code Section 16.20.020 and in effect at the time of building permit issuance. This impact would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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3.11 TRAFFIC AND CIRCULATION

This section presents the results of the traffic impact analysis (TIA) prepared by Urban Crossroads (2015) for the proposed project (see **Appendix 3.11-A**). The TIA evaluated the potential impacts to traffic and circulation associated with development of the proposed project and recommended improvements to mitigate impacts considered significant in comparison to established regulatory thresholds.

3.11.1 EXISTING SETTING

The nine study area intersection locations listed in **Table 3.11-1** were selected for the TIA based on the following: (1) Wildomar’s TIA analysis methodology that requires analysis of intersection locations with 50 or more peak-hour project trips and (2) input from the City of Wildomar Engineering Division. **Figure 3.11-1** illustrates the intersections in the study area. Of the nine study area intersections, six currently exist as part of the city’s circulation network. The other three study area intersections are proposed as part of the project (project driveways) and do not currently exist.

**TABLE 3.11-1
INTERSECTION ANALYSIS LOCATIONS**

ID	Intersection Location	Jurisdiction
1	George Avenue/Clinton Keith Road	Wildomar
2	Inland Valley Drive/Clinton Keith Road	Wildomar
3	Inland Valley Drive/Prielipp Road	Wildomar
4	Salida Del Sol/Yamas Drive/Clinton Keith Road	Wildomar
5	Driveway 1/Prielipp Road	Wildomar
6	Elizabeth Lane/Clinton Keith Road	Wildomar
7	Elizabeth Lane/Driveway 2	Wildomar
8A	Elizabeth Lane/Driveway 3	Wildomar
8B	Elizabeth Lane/Driveway 4	Wildomar
9	Elizabeth Lane/Prielipp Road	Wildomar

Source: *Urban Crossroads 2015*

TRANSIT SERVICE

The study area is currently served by the Riverside Transit Agency (RTA), a public transit agency serving the unincorporated Riverside County region near Wildomar. Based on a review of the existing transit routes in the vicinity of the proposed project, there appears to be one existing line that could feasibly serve the project, RTA Route 23 with an existing bus stop near the corner of Prielipp Road and Inland Valley Drive (Urban Crossroads 2015, p. 25). Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments, which may lead to either enhanced or reduced service where appropriate. A map of existing routes in the vicinity of the project site is illustrated on **Figure 3.11-2**.

3.11 TRAFFIC AND CIRCULATION

BICYCLE AND PEDESTRIAN FACILITIES

Field observations conducted in May 2013 indicate very little pedestrian and bicycle activity in the study area. **Figure 3.11-3** illustrates the City of Wildomar Regional Community Multi-Use Trail System. Review of the adopted City trails map shows that no trails are currently planned on or adjacent to the project site. Existing pedestrian facilities in the study area are shown on **Figure 3.11-4**.



HORIZONS



LEGEND:

-  = EXISTING INTERSECTION
-  = FUTURE INTERSECTION

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-1
Project Study Area Intersections



HORIZONS



LEGEND:

 = RTA ROUTE 23

Source: Urban Crossroads

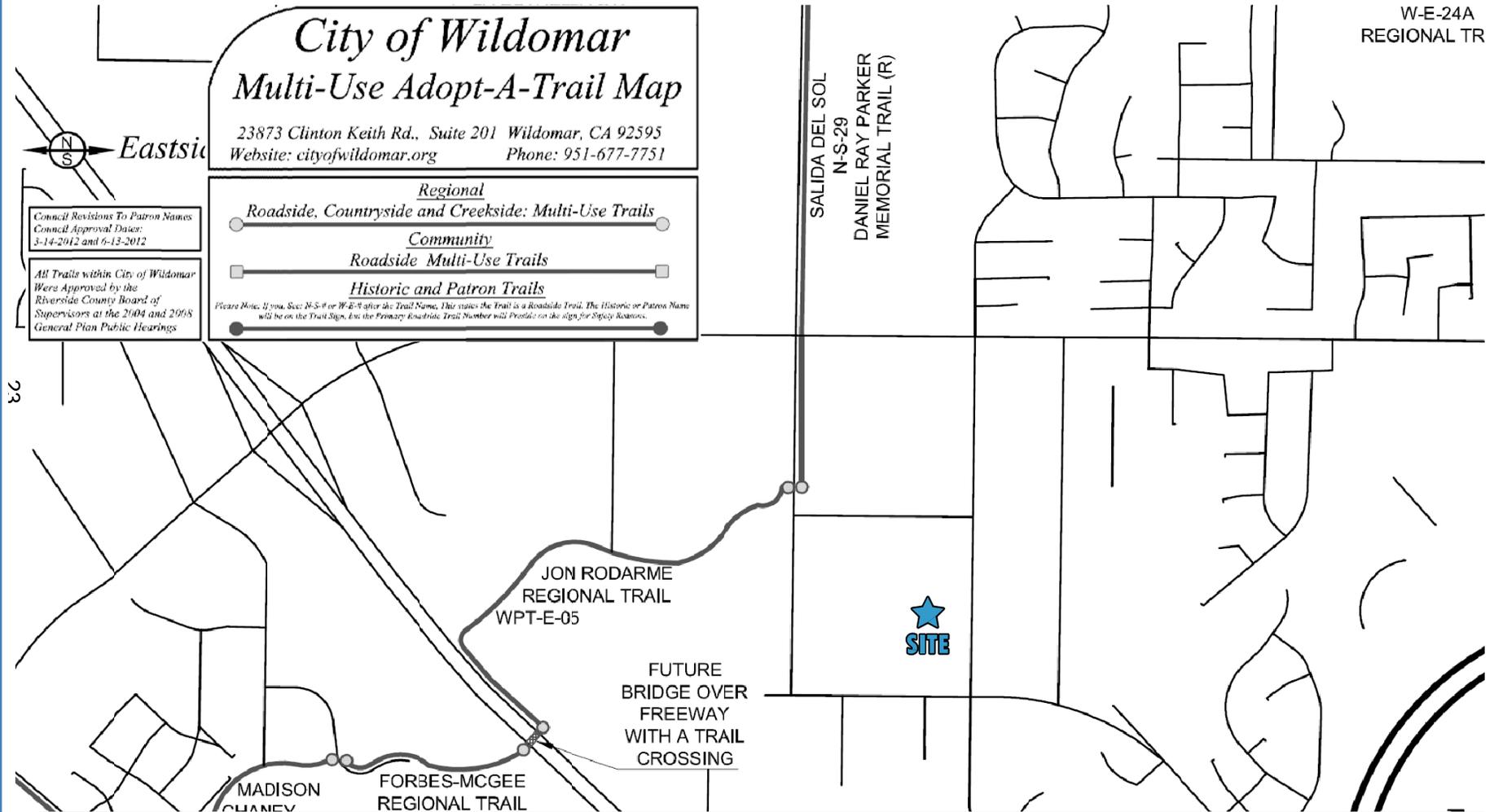
NOT TO SCALE



Figure 3.11-2
Existing Transit Services



HORIZONS



Source: Urban Crossroads

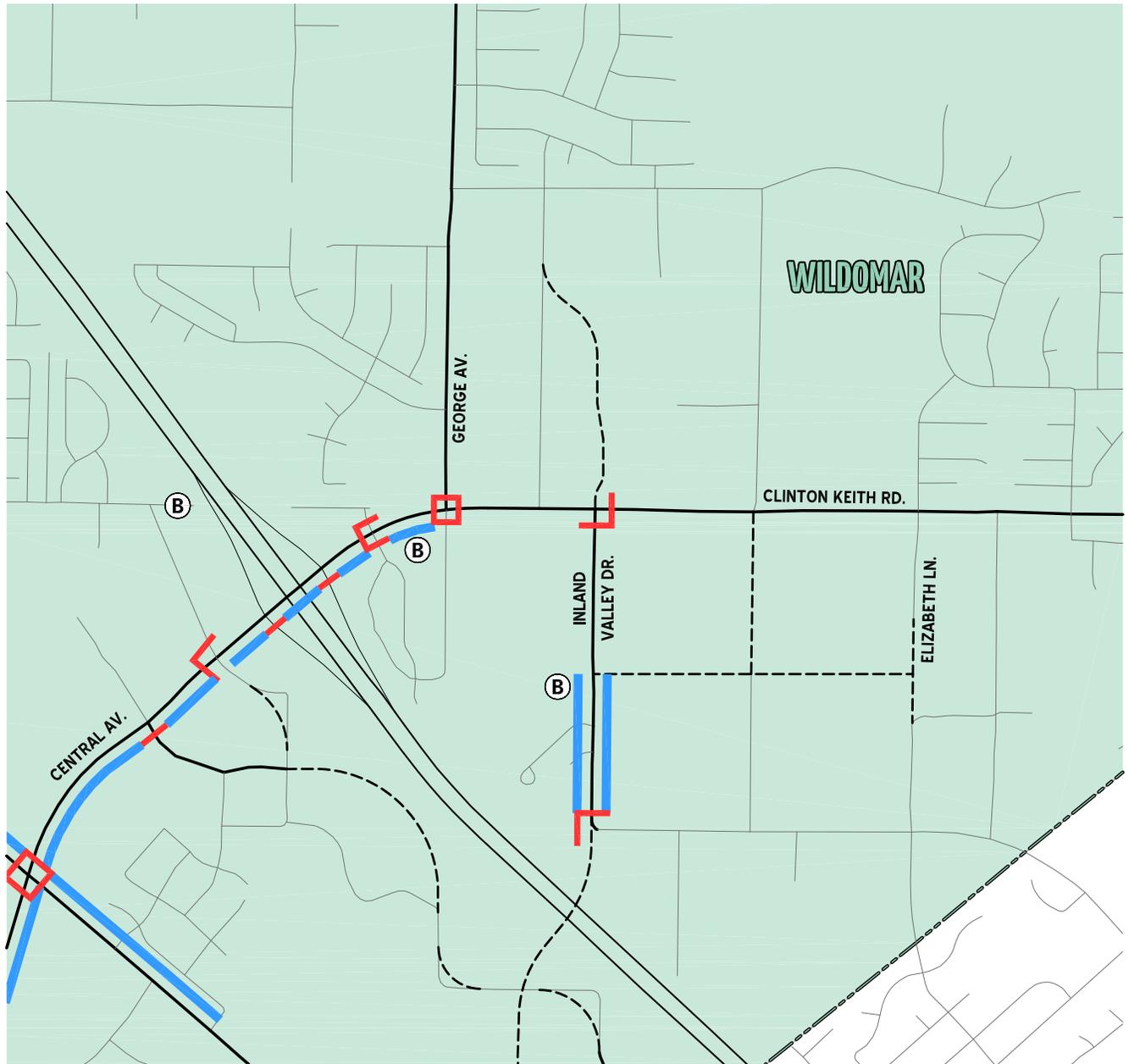
Not to scale



Figure 3.11-3
Multi-Use Adopt-A-Trail System



HORIZONS



LEGEND:

- ⓑ = BUS STOP
- = BIKE LANE
- = CROSSWALK
- = CROSSWALK (SCHOOL ZONE)
- = SIDEWALK

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-4
Existing Pedestrian Facilities

Existing (2013) condition peak-hour traffic operations were evaluated for the project study area transportation facilities based on the analysis methodologies presented in the Methodology subsection below. The intersection operations analysis results are summarized in terms of levels of service (LOS) in **Table 3.11-2**. LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined, ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow. As shown in **Table 3.11-2**, the existing study area intersections are currently operating at acceptable LOS C or D or better during the peak hours, with the exception of:

- Salida Del Sol/Yamas Drive/Clinton Keith Road – LOS D PM peak hour only
- Elizabeth Lane/Clinton Keith Road – LOS D AM peak hour and LOS E PM peak hour

Existing (2013) average daily traffic (ADT) volumes on roadways throughout the study area are shown on **Figure 3.11-5**, in addition to peak-hour intersection volumes. Existing ADT volumes are based on factored intersection peak-hour counts collected by Urban Crossroads using the following formula for each intersection leg:

$$\text{PM peak hour (approach volume + exit volume)} \times 12 = \text{leg volume}$$

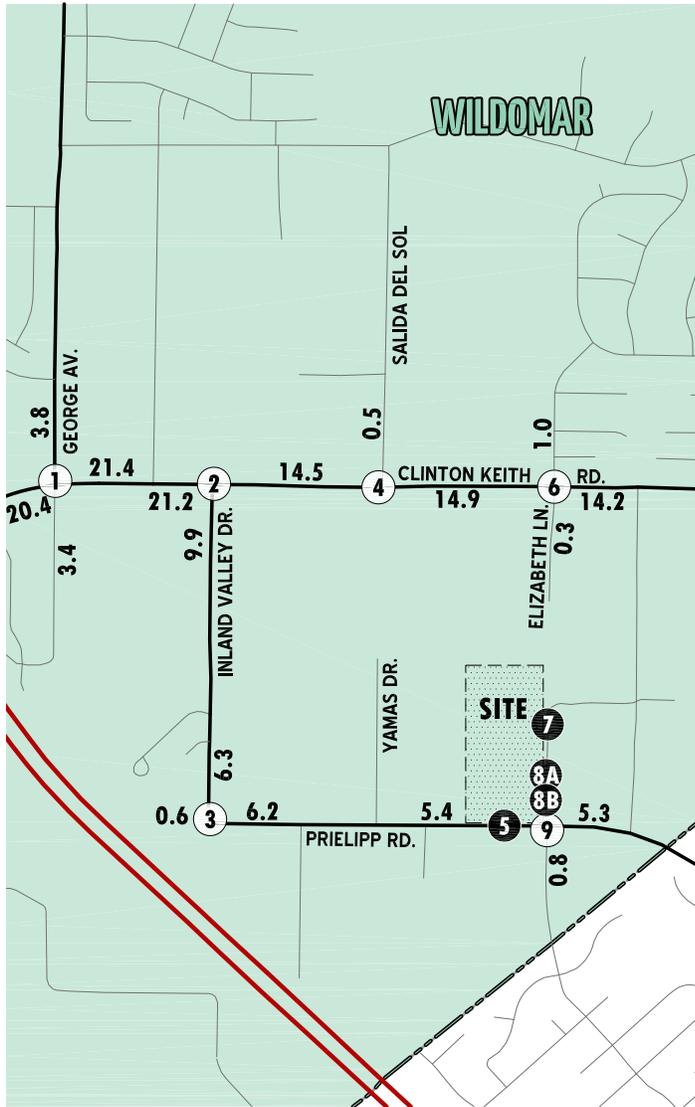
The PM peak-hour volume typically represents approximately 8 percent of daily traffic. The equation shown above was utilized to estimate average daily traffic.

3.11 TRAFFIC AND CIRCULATION

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HORIZONS



1 George Av. & Clinton Keith Rd. 	2 Inland Valley Dr. & Clinton Keith Rd. 	3 Inland Valley Dr. & Prielipp Rd.
4 Salida Del Sol/ Yamas Dr. & Clinton Keith Rd. 	5 Driveway 1 & Prielipp Rd. <p>Future Intersection</p>	6 Elizabeth Ln. & Clinton Keith Rd.
7 Elizabeth Ln. & Driveway 2 <p>Future Intersection</p>	8A Elizabeth Ln. & Driveway 3 <p>Future Intersection</p>	8B Elizabeth Ln. & Driveway 4 <p>Future Intersection</p>
9 Elizabeth Ln. & Prielipp Rd. 		

LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
 26(31) = AM(PM) PEAK HOUR VOLUMES

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-5
Existing Conditions ADT

TABLE 3.11-2
INTERSECTION ANALYSIS FOR EXISTING (2013) CONDITIONS

#	Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (secs.)		Level of Service		
			Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
1	George Avenue/Clinton Keith Road	TS	1	1	0	1	1	1	1	1	1	1	1	1	d	31.3	31.5	C	C
2	Inland Valley Drive/Clinton Keith Road	TS	1	0	1	0	0	0	0	1	1	1	1	1	0	19.9	22.0	B	C
3	Inland Valley Drive/Prielipp Road	AWS	0	0	0	1	0	1	1	1	0	0	1	1		9.3	11.8	A	B
4	Salida Del Sol/Clinton Keith Road	CSS	0	0	0	0	1	0	1	1	0	0	1	0		21.4	25.1	C	D
5	Driveway 1/Prielipp Road	—	Future Intersection												—	—	—	—	
6	Elizabeth Lane/Clinton Keith Road	CSS	0	1	0	0	1	d	1	1	0	1	1	d		28.0	36.4	D	E
7	Elizabeth Lane/Driveway 2	—	Future Intersection												—	—	—	—	
8A	Elizabeth Lane/Driveway 3	—	Future Intersection												—	—	—	—	
8B	Elizabeth Lane/Driveway 4	—	Future Intersection												—	—	—	—	
9	Elizabeth Lane/Prielipp Road	CSS	0	1	d	0	1	0	1	1	0	1	1	0		11.8	12.0	B	B

Source: Urban Crossroads 2015

1. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. (L = left; T = through; R = right; d= de facto right turn lane). A through lane shown opposite of a nonexistent intersection leg denotes a shared left-right turn lane rather than an actual through lane.
2. Delay and LOS calculated using Traffix (Version 8.0 R1, 2008) for signalized and unsignalized intersections. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and LOS for the worst individual movement (or movements sharing a single lane) are shown.
3. AWS = all-way stop; CSS = cross-street stop; TS = traffic signal
Bold = Unsatisfactory level of service/significant impact as defined by City of Wildomar standards.

3.11 TRAFFIC AND CIRCULATION

3.11.2 REGULATORY FRAMEWORK

STATE

Caltrans Traffic Operation Standards

The California Department of Transportation (Caltrans) *Guide for the Preparation of Traffic Impact Studies* (2002) includes criteria for evaluating the effects of land use development and changes to the circulation system on state highways. Caltrans maintains a target level of service at the transition between LOS C and LOS D for freeway facilities.

REGIONAL

Riverside Transit Agency

The Riverside Transit Agency was established as a joint powers agency in 1975 and began operating bus service in 1977. RTA is the consolidated transportation service agency for western Riverside County, with a service area of approximately 2,500 square miles. It is responsible for coordinating transit services throughout the service area, providing driver training, assistance with grant applications, and development of short-range transit plans.

RTA provides both local and regional services throughout the region with 36 fixed routes, eight CommuterLink routes, and dial-a-ride services. Wildomar is served by Route 7, which heads north to the City of Lake Elsinore, Route 8, which heads around Lake Elsinore, and Route 23, which heads toward the City of Murrieta. The routes include connections to other routes into and beyond Riverside County.

Riverside County Congestion Management Program

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California, including Riverside County, to prepare a Congestion Management Program (CMP). The 2011 Riverside County CMP, which was prepared by the Riverside County Transportation Commission (RCTC) in consultation with the County and the cities in Riverside County, is intended to more directly align land use, transportation, and air quality management efforts and to promote reasonable growth management programs that effectively use statewide transportation funds, while ensuring that new development pays its fair share of needed transportation improvements.

The focus of the CMP is the development of an Enhanced Traffic Monitoring System in which real-time traffic count data can be accessed by the RCTC to evaluate the condition of the Congestion Management System (CMS) as well as meet other monitoring requirements at the state and federal levels. Per the adopted level of service standard of LOS E, when a CMS segment falls to LOS F, a deficiency plan is required. Preparation of a deficiency plan will be the responsibility of the local agency where the deficiency is located. Other agencies identified as contributors to the deficiency will also be required to coordinate with the development of the plan. The plan must contain mitigation measures, including transportation demand management (TDM) strategies and transit alternatives, and a schedule for mitigating the deficiency. To ensure that the CMS is appropriately monitored to reduce the occurrence of CMP deficiencies, it is the responsibility of local agencies, when reviewing and approving development proposals, to consider the traffic impacts on the CMS.

LOCAL

City of Wildomar General Plan

Several General Plan policies relate to circulation; however, many are vague and not implementable. The policies listed below are the most relevant to the proposed project.

C 2.1: Maintain the following target Levels of Service:

LOS "C" along all County [City] maintained roads and conventional state highways. As an exception, LOS "D" may be allowed in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional state highways, or freeway ramp intersections.

LOS "E" may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

ELAP 11.1: Design and develop the vehicular roadway system per Figure 7, Circulation, and in accordance with the functional classifications and standards specified in the Planned Circulation Systems section of the General Plan Circulation Element.

ELAP 12.1: Implement the Trails and Bikeway System, Figure 8, through such means as dedication or purchase, as discussed in the Trails and Greenways section of the General Plan Multipurpose Open Space Element and in the Non-motorized Transportation section of the General Plan Circulation Element.

The City of Wildomar is included in the Elsinore Area Plan, which is a Community Development area. As such, LOS C is the target, but LOS D may be allowed as indicated in Policy C 2.1. Prielipp Road is a secondary highway, whereas Elizabeth Lane and Bunny Trail are collector roadways.

3.11.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. Transportation impacts are considered significant when the project would:

- 1) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- 2) Conflict with an applicable congestion management program, including, but not limited to, level of service standard and travel demand measure or other standards established by the county congestion management agency for designated roads or highways.
- 3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

3.11 TRAFFIC AND CIRCULATION

- 4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- 5) Result in inadequate emergency access.
- 6) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The nearest airport is Skylark Field Airport, which is located approximately 6 miles northwest of the proposed project site. Due to the airport's distance from the project site, the proposed project would not result in any change in air traffic patterns. As such, this issue area (Standard of Significance 3) will not be analyzed further in this EIR.

SIGNIFICANCE THRESHOLD

Based on the City's guidelines, a significant impact occurs when the addition of project traffic, as defined by any "with project" scenario, causes an intersection that operates at an acceptable level of service under the "without project" traffic condition (i.e., LOS C or D or better) to fall to an unacceptable level of service (i.e., LOS E or F). Therefore, the following criteria were utilized to identify significant project-related traffic impacts:

- If an intersection is projected to operate at an acceptable level of service without the project and the addition of project traffic, as measured by 50 or more peak-hour trips, is expected to cause the intersection to operate at an unacceptable level of service, the impact is considered significant.

In addition, for intersections within the jurisdictional authority of the City of Wildomar, the City requires that an additional test be performed for intersection locations found to operate at a deficient level of service (i.e., LOS E or F) under pre-project conditions:

- If an intersection is projected to operate at an unacceptable level of service without the project, and the addition of project traffic (as measured by 50 peak-hour trips or more) results in an increase of more than 5.0 seconds to the peak-hour delay, the impact is considered significant. Mitigation is then required to bring the "with project" scenario delay to within 5.0 seconds of the pre-project condition.

A significant cumulative impact has been identified when an intersection is projected to operate below the requisite level of service standard under pre-project conditions and the project's measurable increase in traffic, as defined by 50 or more peak-hour trips, contributes to the deficiency. Cumulative traffic impacts are created as a result of a combination of the proposed project together with other future developments contributing to the overall traffic impacts and requiring additional improvements to maintain acceptable level of service operations with or without the project.

A project's contribution to a cumulatively significant impact can be reduced to less than significant if the project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact would be identified and would exist until the needed improvement is fully funded and constructed.

In cases where the TIA prepared for the proposed project identifies that the project would have a significant cumulative impact to a roadway facility, and the recommended mitigation

measure is a fair-share monetary contribution, the following methodology was applied to determine the fair-share contribution. A project’s fair-share contribution at an off-site study area intersection is determined based on the following equation, which is the ratio of project traffic to new traffic, and new traffic is total future traffic minus existing baseline traffic:

$$\text{Project Fair Share \%} = \text{Project Traffic} / (\text{Post-2035 Total Traffic} - \text{Existing Baseline Traffic})$$

METHODOLOGY

Project Trip Generation

Trip generation represents the amount of traffic that is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based on forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed for a given development. Trip generation rates used to estimate project traffic are shown in **Table 3.11-3** and a summary of the project’s trip generation is shown in **Table 3.11-4**. The trip generation rates are based on data collected by the Institute of Transportation Engineers (ITE) for condominium/townhome (ITE Land Use Code 230), assisted living facility (ITE Land Use Code 254), and skilled nursing facility (ITE Land Use Code 620) land uses in their recently published *Trip Generation Manual*, 9th Edition (2012).

The project is estimated to generate a net total of approximately 1,129 net trip-ends per day on a typical weekday, with approximately 81 net weekday AM peak-hour trips and 99 net weekday PM peak-hour trips.

**TABLE 3.11-3
PROJECT TRIP GENERATION RATES¹**

Land Use	Units ²	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			Inbound	Outbound	Total	Inbound	Outbound	Total	
Condo/Townhome	DU	230	0.07	0.37	0.44	0.35	0.17	0.52	5.81
Assisted Living	Beds	254	0.09	0.05	0.14	0.10	0.12	0.22	2.66
Skilled Nursing ³	Beds	620	0.09	0.08	0.17	0.07	0.15	0.22	2.74

Source: *Urban Crossroads 2015*

1. Trip Generation Source: *ITE Trip Generation Manual, 9th Edition (2012)*

2. DU = dwelling unit

3. AM peak-hour split is unavailable for ITE Land Use 620. As such, a split of 50% has been utilized.

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**TABLE 3.11-4
PROJECT TRIP GENERATION SUMMARY**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Condo/Townhome	10	54	64	51	25	76	848
Assisted Living	5	3	8	5	6	11	144
Skilled Nursing	5	4	9	4	8	12	137
Total	20	61	81	60	39	99	1,129

Source: Urban Crossroads 2015

Project Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be used by project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the project traffic would distribute. The project trip distributions were developed based on anticipated travel patterns to and from the project site for the traffic associated with the proposed project. Trip distributions were developed by Urban Crossroads based on a “select zone” model run from the City-focused version of the Riverside County Traffic Analysis Model (RivTAM). Further refinements to these distributions have been made based on the proposed land uses, existing transportation network, and anticipated travel patterns.

Modal Split

Although the use of public transit, walking, and/or bicycling have the potential to reduce project-related traffic, such reductions were taken into consideration in the traffic study in order to provide a conservative analysis of the project’s potential to result in significant traffic impacts.

Project Trip Assignment

The assignment of traffic from the project area to the adjoining roadway system is based on the project trip generation, trip distribution, and arterial highway and local street system improvements that would be in place by the time of initial occupancy of the project. Based on the identified project traffic generation and trip distribution patterns, project average daily traffic (ADT) and weekday AM and PM peak-hour volumes are shown on **Figure 3.11-6**.

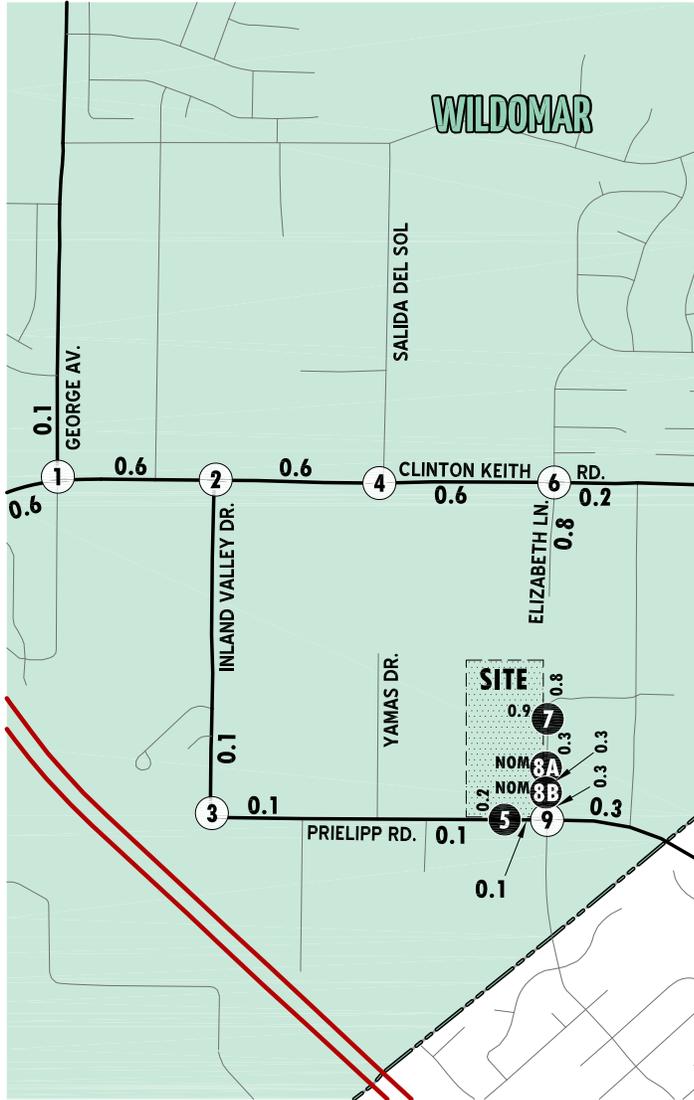
Background Traffic

Future year traffic forecasts were based on four years of background (ambient) growth at 2 percent per year for 2017 traffic conditions. The total ambient growth is 8.24 percent for 2017 traffic conditions (compounded growth of 2 percent per year over four years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak-hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

According to information published by the Riverside County Information Technology GIS staff as input to the Southern California Association of Governments (SCAG) Regional Transportation



HORIZONS



1 George Av. & Clinton Keith Rd. 	2 Inland Valley Dr. & Clinton Keith Rd. 	3 Inland Valley Dr. & Prielipp Rd.
4 Salida Del Sol/ Yamas Dr. & Clinton Keith Rd. 	5 Driveway 1 & Prielipp Rd. 	6 Elizabeth Ln. & Clinton Keith Rd.
7 Elizabeth Ln. & Driveway 2 	8A Elizabeth Ln. & Driveway 3 	8B Elizabeth Ln. & Driveway 4
9 Elizabeth Ln. & Prielipp Rd. 		

LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

26(31) = AM(PM) PEAK HOUR VOLUMES

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-6
Project Only Average ADT

Plan (2012), the population of western Riverside County is projected to increase by 41 percent in the period between 2010 and 2035, a compounded rate of approximately 1.38 percent annually (Urban Crossroads 2015, p. 35). During the same period, employment in western Riverside County is expected to increase by 112 percent, or 3.06 percent compounded annually (Urban Crossroads 2015, p. 35).

Therefore, the use of an annual growth rate of 2 percent would appear to accurately approximate the anticipated regional growth in traffic volumes in the city, especially when considered with the addition of project-related traffic and traffic generated by other known development projects. As such, the growth in traffic volumes assumed in this section would tend to overstate, as opposed to understate, the potential impacts to traffic and circulation.

Traffic Forecasts

To provide a comprehensive assessment of the potential project-related and cumulative traffic impacts, two types of analyses, “buildup” and “buildout,” were performed in support of this work effort. The buildup method was used to approximate traffic forecasts for both Existing Plus Project and Opening Year (2017) traffic conditions. The Existing Plus Project scenario is intended to identify the significant project impacts associated with the proposed project, while the Opening Year (2017) scenario is intended to identify near-term cumulative impacts on both the existing and planned near-term circulation system. The Existing Plus Project traffic conditions include existing traffic in addition to the traffic generated by the proposed project. The Opening Year (2017) traffic conditions include background traffic, traffic generated by other cumulative development projects within the study area, and traffic generated by the proposed project. (The buildout approach is used to forecast the General Plan buildout (post-2035) without and with project conditions of the study area.)

Intersection Capacity Analysis

As previously described, traffic operations of transportation facilities are described using the term *level of service*. LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined, ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The level of service is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) (Transportation Research Board 2000) methodology expresses the level of service at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control.

The intersection LOS analysis is based on the traffic volumes observed during the peak-hour conditions using traffic count data collected on August 21, 2013, and September 17, 2013, while schools in the Lake Elsinore Unified School District were in session. The following peak hours were selected for analysis:

- Weekday AM peak hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM peak hour (peak hour between 4:00 PM and 6:00 PM)

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Roadway Segment Capacity Analysis

In general, intersection operations analysis provides a more realistic assessment of traffic conditions on a road than the roadway segment analysis. As stated above, the LOS of a roadway segment is typically dependent on the quality of traffic flow at the intersections along a roadway (Transportation Research Board 2000). In other words, the performance and LOS of a roadway segment is heavily influenced by the ability of the intersections to accommodate peak-hour volumes. Therefore, for the purposes of this analysis, the project will be deemed to have significant impacts to study area roadway segments if the analyses exhibit unacceptable levels of service at study area intersections.

Signalized Intersections

The City of Wildomar requires signalized intersection operations analysis based on the methodology described in Chapter 16 of the *Highway Capacity Manual*. Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in **Table 3.11-5**. All signalized study area intersections were analyzed using the software package Traffix (Version 8.0 R1, 2008).

**TABLE 3.11-5
SIGNALIZED INTERSECTION LOS THRESHOLDS**

Level of Service	Description	Average Control Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up

Source: *Urban Crossroads 2015*
V/C = volume-to-capacity

The peak-hour traffic volumes have been adjusted using a peak-hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., $PHF = \frac{[Hourly Volume]}{4 \times Peak\ 15\text{-minute\ Flow\ Rate}}$). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs were used for Existing (2013), Existing Plus Project, and Opening Year (2017) traffic conditions for the purposes of analysis. A PHF of 0.92 or

higher was used for all study area intersections for Wildomar General Plan buildout (post-2035) without and with project traffic conditions.

Unsignalized Intersections

The City of Wildomar requires the operations of unsignalized intersections to be evaluated using the methodology described in Chapter 17 of the HCM (also consistent with Riverside County traffic study guidelines). The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see **Table 3.11-6**).

**TABLE 3.11-6
UNSIGNALIZED INTERSECTION LOS THRESHOLDS**

Level of Service	Description	Average Control per Vehicle (Seconds)
A	Little or no delays	0 to 10.00
B	Short traffic delays	10.01 to 15.00
C	Average traffic delays	15.01 to 25.00
D	Long traffic delays	25.01 to 35.00
E	Very long traffic delays	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded	> 50.00

Source: *Urban Crossroads 2015*

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop-controlled intersections, LOS is computed for the intersection as a whole.

Traffic Signal Warrant Analysis Methodology

The term *signal warrants* refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The TIA used the signal warrant criteria presented in the latest edition of the Federal Highway Administration’s (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD), as amended by the MUTCD 2012 California Supplement, for all study area intersections.

The signal warrant criteria for existing (2013) conditions are based on several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. According to the TIA, both the MUTCD and the MUTCD 2012 California Supplement indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. Specifically, the TIA utilized Peak Hour Volume-Based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 criteria are basically identical for both the MUTCD and the MUTCD 2012 California Supplement. Warrant 3 was deemed appropriate to use for the TIA by Urban Crossroads because it provides specialized warrant criteria for intersections with rural characteristics (e.g., located in communities with populations of less than 10,000 or with adjacent major streets operating at or

3.11 TRAFFIC AND CIRCULATION

above 40 miles per hour). For the purposes of the TIA, the speed limit was the basis for determining whether urban or rural warrants were used for a given intersection.

Future unsignalized intersections were assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning-level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for the following unsignalized study area intersections and future intersections shown in **Table 3.11-7**.

**TABLE 3.11-7
EXISTING AND FUTURE UNSIGNALIZED TRAFFIC SIGNAL WARRANT ANALYSES LOCATIONS**

ID	Intersection Location	Jurisdiction
3	Inland Valley Drive/Prielipp Road	Wildomar
4	Salida Del Sol/Yamas Drive/Clinton Keith Road	Wildomar
5	Driveway 1/Prielipp Road	Wildomar
6	Elizabeth Lane/Clinton Keith Road	Wildomar
7	Elizabeth Lane/Driveway 2	Wildomar
8A	Elizabeth Lane/Driveway 3	Wildomar
8B	Elizabeth Lane/Driveway 4	Wildomar
9	Elizabeth Lane/Prielipp Road	Wildomar

Source: *Urban Crossroads 2015*

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS D or operate below LOS D and not meet a signal warrant.

LOS Criteria/Threshold of Significance

As previously described, General Plan Circulation Element Policy C 2.1 states that the City will maintain the following countywide target level of service:

- LOS C on all City maintained roads and conventional state highways.
- LOS D as an exception allowed in Community Development areas at intersections of any combination of Secondary Highways, Major Highways, Arterial, Urban Arterials, Expressways, conventional state highways, or freeway ramp intersections.
- LOS E as an exception allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

Additionally, if an intersection is projected to operate at an unacceptable level of service without the project, and the addition of project traffic (as measured by 50 peak-hour trips or more) results in an increase of more than 5.0 seconds to the peak-hour delay, the impact is

considered significant. Mitigation is then required to bring the “with project” scenario delay to within 5.0 seconds of the pre-project condition.

A summary of acceptable level of service by study area intersection is shown in **Table 3.11-8**.

**TABLE 3.11-8
ACCEPTABLE LEVEL OF SERVICE PER INTERSECTION**

ID	Intersection Location	Acceptable LOS
1	George Avenue/Clinton Keith Road	D
2	Inland Valley Drive/Clinton Keith Road	D
3	Inland Valley Drive/Prielipp Road	D
4	Salida Del Sol/Clinton Keith Road	C
5	Driveway 1/Prielipp Road	C
6	Elizabeth Lane/Clinton Keith Road	C
7	Elizabeth Lane/Driveway 2	C
8A	Elizabeth Lane/Driveway 3	C
8B	Elizabeth Lane/Driveway 4	C
9	Elizabeth Lane/Prielipp Road	C

Source: *Urban Crossroads 2015*

Traffic Operations Analysis Methodology

For the purpose of the TIA, potential impacts to traffic and circulation were assessed for each of the following conditions:

Existing (2013) Conditions (1 scenario)

Information for the existing year (2013) is disclosed to represent the baseline traffic conditions as they existed at the time the TIA was prepared.

Existing Plus Project Conditions (1 scenario)

The existing year (2013) with project analysis determines direct project-related traffic impacts that would occur on the existing roadway system in the theoretical scenario of the project being placed on existing conditions. Based on discussions with City staff, project impacts have been determined through a comparison of the existing (2013) versus existing with project traffic conditions. As such, the existing with project scenario is provided to assess direct project impacts and to identify the associated project mitigation measures.

Opening Year (2017) Without and With Project Conditions (2 Scenarios) – Ambient Growth and Cumulative Development Projects (EAC and EAPC)

The opening year (2017) without and with project conditions analyses will be utilized to determine both direct project-related and cumulative traffic impacts. To account for background traffic, 31 other known cumulative projects in the study area were included in addition to 8.24-percent of ambient growth. This list of cumulative projects was compiled from information provided by the Planning Department and Engineering Department, in an effort to

3.11 TRAFFIC AND CIRCULATION

identify pending development projects and development applications on file with the City. The opening year (2017) scenario is provided to assess the cumulative impacts and to identify the associated mitigation measures through a comparison of opening year (2017) without and with project traffic conditions.

Cumulative Analysis Methodology

The CEQA Guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. The cumulative setting for the proposed project includes the buildout population and land use mix of the Wildomar General Plan. Traffic projections for General Plan buildout (post-2035) without project conditions were derived from a version of the Riverside County Traffic Analysis Model (RivTAM) modified to represent General Plan buildout conditions for Wildomar using accepted procedures for model forecast refinement and smoothing.

The General Plan buildout (post-2035) without and with project traffic conditions analyses will be utilized to determine whether improvements funded through regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF), City Development Impact Fee (DIF) programs, or other approved funding mechanism can accommodate the long-range cumulative traffic at the target LOS identified in the City of Wildomar General Plan. If the funded improvements can provide the target LOS, then the project's payment into the TUMF and DIF will be considered as cumulative mitigation through the conditions of approval. Other improvements needed beyond the funded improvements (such as localized improvements to non-TUMF, or DIF facilities) are identified as such. **Table 4-3 (Appendix 3.11)** in the TIA lists the cumulative development projects in the City of Wildomar and surrounding communities

PROJECT IMPACTS AND MITIGATION MEASURES

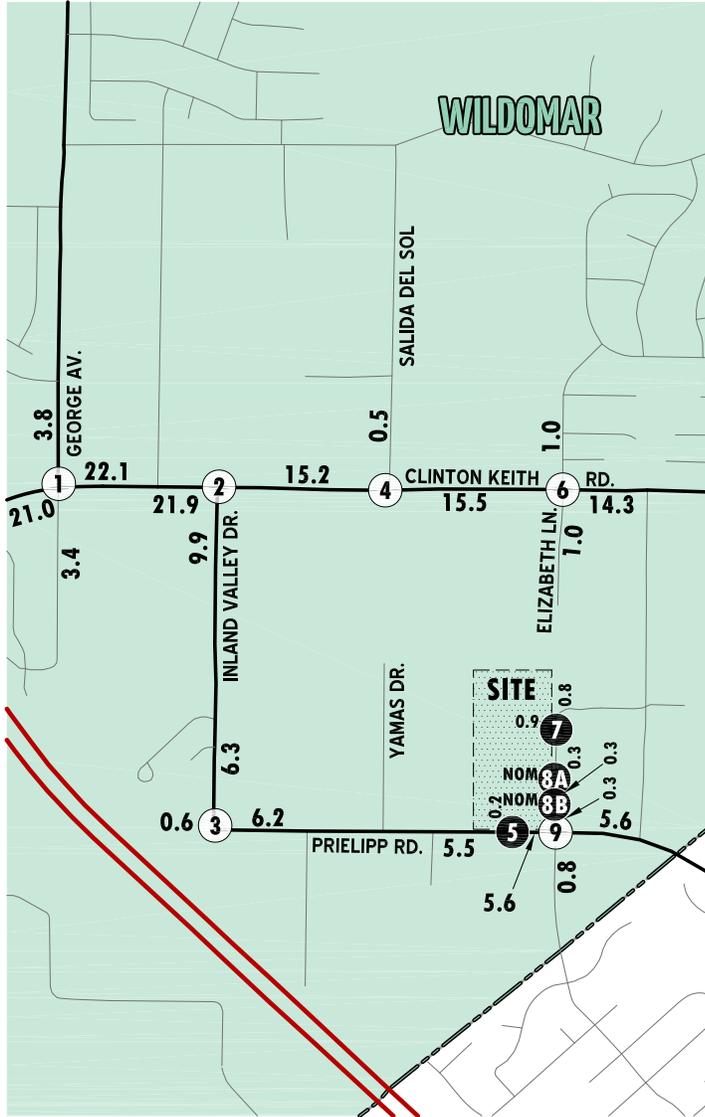
Substantial Increase in Traffic Volume – Existing Plus Project (Standards of Significance 1 and 2)

Impact 3.11.1 The proposed project would result in an increase in traffic under the Existing Plus Project scenario that is substantial in relation to the existing traffic load and capacity of the street system or exceeds an established level of service standard (i.e., results in a substantial increase in either the volume-to-capacity ratio and/or the level of service at intersections). This impact is considered **less than significant**.

Existing Plus Project peak-hour traffic operations were evaluated for the study area intersections based on the analysis methodologies presented above. The Existing Plus Project scenario includes Existing (2013) traffic volumes plus project traffic. **Figure 3.11-7** shows the ADT volumes which can be expected for Existing Plus Project conditions. Existing Plus Project AM and PM peak-hour intersection turning movement volumes are also shown in **Figure 3.11-7**. The intersection analysis results are summarized in **Table 3.11-9**.



HORIZONS



1 George Av. & Clinton Keith Rd. $\begin{matrix} \uparrow 155(75) \\ \downarrow 17(43) \\ \downarrow 63(53) \\ \uparrow 63(45) \\ \leftarrow 741(724) \\ \downarrow 59(70) \end{matrix}$	2 Inland Valley Dr. & Clinton Keith Rd. $\begin{matrix} \leftarrow 403(681) \\ \leftarrow 413(331) \\ \leftarrow 267(360) \\ \leftarrow 44(88) \end{matrix}$	3 Inland Valley Dr. & Prielipp Rd. $\begin{matrix} \uparrow 32(4) \\ \downarrow 169(269) \\ \leftarrow 228(230) \\ \leftarrow 15(5) \end{matrix}$
4 Salida Del Sol/ Yamas Dr. & Clinton Keith Rd. $\begin{matrix} \uparrow 6(4) \\ \downarrow 2(23) \\ \leftarrow 20(13) \\ \leftarrow 682(493) \end{matrix}$	5 Driveway 1 & Prielipp Rd. $\begin{matrix} \uparrow 3(2) \\ \downarrow 6(4) \\ \leftarrow 2(6) \\ \leftarrow 212(170) \end{matrix}$	6 Elizabeth Ln. & Clinton Keith Rd. $\begin{matrix} \uparrow 39(14) \\ \downarrow 9(6) \\ \leftarrow 9(4) \\ \leftarrow 628(465) \\ \leftarrow 8(13) \end{matrix}$
7 Elizabeth Ln. & Driveway 2 $\begin{matrix} \uparrow 17(37) \\ \downarrow 4(5) \\ \leftarrow 38(24) \\ \leftarrow 11(7) \end{matrix}$	8A Elizabeth Ln. & Driveway 3 $\begin{matrix} \uparrow 0(1) \\ \downarrow 14(11) \\ \leftarrow 1(1) \\ \leftarrow 1(0) \end{matrix}$	8B Elizabeth Ln. & Driveway 4 $\begin{matrix} \uparrow 0(1) \\ \downarrow 15(10) \\ \leftarrow 1(1) \\ \leftarrow 1(0) \end{matrix}$
9 Elizabeth Ln. & Prielipp Rd. $\begin{matrix} \uparrow 7(3) \\ \downarrow 0(0) \\ \downarrow 13(8) \\ \leftarrow 5(12) \\ \leftarrow 182(151) \\ \leftarrow 9(16) \end{matrix}$		

LEGEND:

- 10.0** = VEHICLES PER DAY (1000'S)
- 26(31) = AM(PM) PEAK HOUR VOLUMES
- NOM** = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-7
Existing Plus Project ADT

TABLE 3.11-9
INTERSECTION ANALYSIS FOR EXISTING PLUS PROJECT CONDITIONS

#	Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Existing (2013)				Existing Plus Project					
			Northbound			Southbound			Eastbound			Westbound			Delay ² (secs.)		Level of Service		Delay ² (secs.)		Level of Service			
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM		
1	George Avenue/Clinton Keith Road	TS	1	1	0	1	1	1	1	1	1	1	1	1	1	d	31.3	31.5	C	C	32.5	32.8	C	C
2	Inland Valley Drive/Clinton Keith Road	TS	1	0	1	0	0	0	0	1	1	1	1	1	0		19.9	22.0	B	C	20.0	22.4	B	C
3	Inland Valley Drive/Prielipp Road	AWS	0	0	0	1	0	1	1	1	0	0	1	1		9.3	11.8	A	B	9.3	11.9	A	B	
4	Salida Del Sol/Clinton Keith Road	CSS	0	0	0	0	1	0	1	1	0	0	1	0		21.4	25.1	C	D	22.7	26.5	C	D	
5	Driveway 1/Prielipp Road	CSS	0	0	0	0	1	0	0	1	0	0	1	0		—	—	—	—	10.6	11.0	B	B	
6	Elizabeth Lane/Clinton Keith Road	CSS	0	1	0	0	1	d	1	1	0	1	1	d		28.0	36.4	D	E	32.9	39.8	D	E	
7	Elizabeth Lane/Driveway 2	CSS	0	1	0	0	1	0	0	1	0	0	0	0		—	—	—	—	8.8	8.8	A	A	
8A	Elizabeth Lane/Driveway 3	CSS	0	1	0	0	1	0	0	1	0	0	0	0		—	—	—	—	8.5	8.5	A	A	
8B	Elizabeth Lane/Driveway 4	CSS	0	1	0	0	1	0	0	1	0	0	0	0		—	—	—	—	8.5	8.6	A	A	
9	Elizabeth Lane/Prielipp Road	CSS	0	1	d	0	1	0	1	1	0	1	1	0		11.8	12.0	B	B	11.9	11.9	B	B	

Source: Urban Crossroads 2015

1. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. (L = left; T = through; R = right; d = de facto right turn lane). A through lane shown opposite of a nonexistent intersection leg denotes a shared left-right turn lane rather than an actual through lane.
2. Delay and LOS calculated using Traffix (Version 8.0 R1, 2008) for signalized and unsignalized intersections. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and LOS for the worst individual movement (or movements sharing a single lane) are shown.
3. AWS = all-way stop; CSS = cross-street stop; TS = traffic signal
Bold = Unsatisfactory level of service

3.11 TRAFFIC AND CIRCULATION

As shown in **Table 3.11-9**, the addition of project traffic would not result in an acceptably operating intersection to operate unacceptably. Also, the addition of project traffic would not result in an increase of delay of more than 5.0 seconds at either of the two intersections that already operate unacceptably under Existing (2013) conditions. For Existing Plus Project conditions, no additional study area intersections appear to warrant a traffic signal beyond those identified under Existing (2013) conditions. This impact is **less than significant**.

Mitigation Measures

None required.

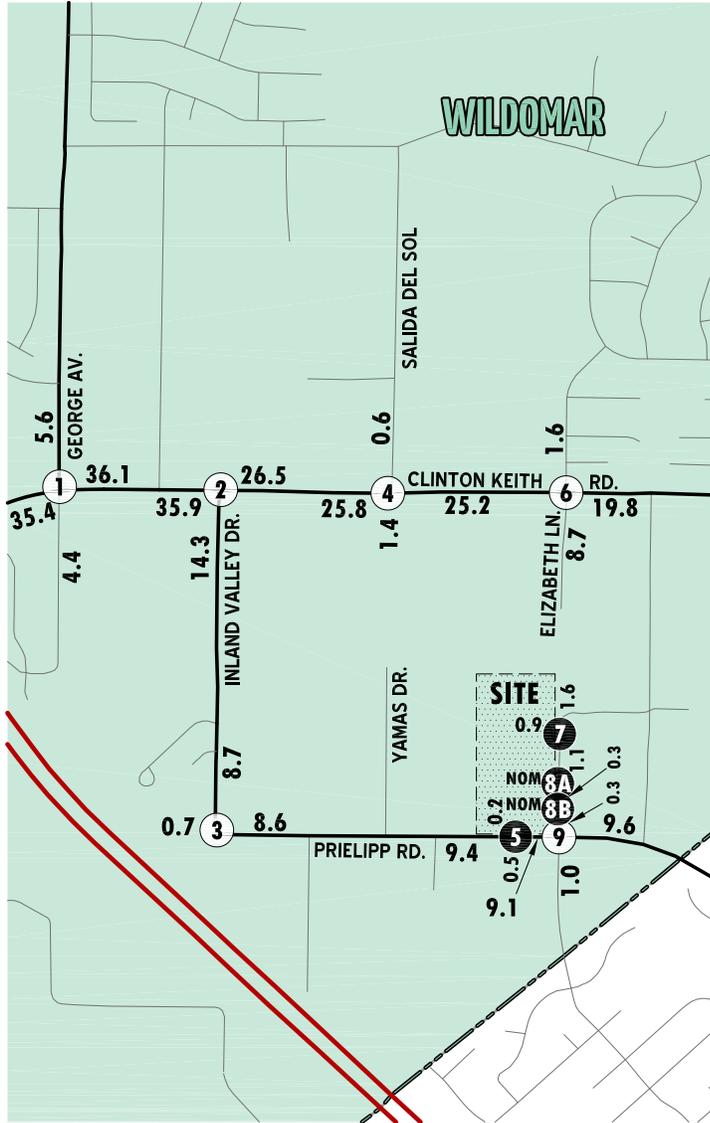
Substantial Increase in Traffic Volume – Opening Year (2017) With Project (Standards of Significance 1 and 2)

Impact 3.11.2 The proposed project would result in an increase in traffic under the Opening Year (2017) With Project scenario that is substantial in relation to the existing traffic load and capacity of the street system or exceeds an established level of service standard (i.e., result in a substantial increase in either the volume-to-capacity ratio and/or the level of service at intersections). This impact is considered **significant and unavoidable**.

Opening Year (2017) With Project peak-hour traffic operations were evaluated for the study area intersections. The Opening Year (2017) With Project scenario includes Existing (2013) traffic volumes plus an ambient growth factor of 8.24 percent, traffic from pending and approved development projects in the area, and the addition of project traffic in 2017. **Figure 3.11-8** shows the ADT volumes that can be expected for Opening Year (2017) With Project conditions. Opening Year (2017) With Project AM and PM peak-hour intersection turning movement volumes are also shown in **Figure 3.11-8**. The intersection analysis results are summarized in **Table 3.11-10**, which also presents Opening Year (2017) peak-hour traffic data without the proposed project.



HORIZONS



1 George Av. & Clinton Keith Rd. 178(108) ↓ 217(57) ↓ 94(93) ↓ 101(83) ↑ 1132(1485) ↑ 64(76) ↓	2 Inland Valley Dr. & Clinton Keith Rd. 881(1079) ↓ 143(97) ↓	3 Inland Valley Dr. & Prielipp Rd. 355(4) ↓ 239(379) ↓ 298(340) ↑ 16(5) ↓
105(111) → 256(357) → 23(50) ↓ 46(46) ↑ 18(31) ↑ 34(118) ↓	996(1088) → 531(483) → 398(534) ↑ 62(121) ↓	22(28) → 11(18) →
4 Salida Del Sol/ Yamas Dr. & Clinton Keith Rd. 6(4) ↓ 0(0) ↓ 26(25) ↓ 22(14) ↑ 943(1092) ↑ 7(10) ↓	5 Driveway 1 & Prielipp Rd. 3(2) ↓ 0(0) ↓ 6(4) ↓ 2(6) ↑ 339(308) ↑ 1(4) ↓	6 Elizabeth Ln. & Clinton Keith Rd. 48(33) ↑ 7(5) ↓ 16(14) ↓ 15(10) ↑ 758(640) ↑ 96(69) ↓
8(4) ↓ 988(1120) ↓ 40(55) ↓ 82(92) ↓ 0(0) ↓ 8(9) ↓	1(3) ↓ 269(462) ↓ 9(30) ↓ 27(18) ↓ 0(0) ↓ 4(2) ↓	32(74) ↓ 573(873) ↓ 418(206) ↓ 165(442) ↓ 3(7) ↓ 57(106) ↓
7 Elizabeth Ln. & Driveway 2 12(37) ↓ 16(55) ↓ 38(24) ↓ 11(7) ↓ 4(11) ↓ 58(31) ↓	8A Elizabeth Ln. & Driveway 3 0(1) ↓ 1(1) ↓ 0(1) ↓ 9(13) ↓	8B Elizabeth Ln. & Driveway 4 0(1) ↓ 15(10) ↓ 1(1) ↓ 0(1) ↓ 0(1) ↓ 8(13) ↓
9 Elizabeth Ln. & Prielipp Rd. 7(3) ↓ 0(0) ↓ 35(20) ↓ 10(34) ↑ 308(292) ↑ 13(26) ↓ 3(2) ↓ 266(448) ↓ 10(18) ↓ 32(24) ↓ 0(0) ↓ 34(20) ↓		

LEGEND:

- 10.0** = VEHICLES PER DAY (1000'S)
- 26(31) = AM(PM) PEAK HOUR VOLUMES
- NOM** = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-8
Opening Year ADT

TABLE 3.11-10
INTERSECTION ANALYSIS FOR OPENING YEAR (2017) CONDITIONS – WITH AND WITHOUT PROJECT

#	Intersection	Funding Source ¹	Traffic Control ²	Intersection Approach Lanes ³												Without Project				With Project						
				Northbound			Southbound			Eastbound			Westbound			Delay ⁴ (secs.)		Level of Service		Delay ⁴ (secs.)		Level of Service				
				L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	A M	PM
1	George Avenue/Clinton Keith Road	DIF	TS	1	1	0	1	1	1	1	1	1	1	1	1	1	1	d	163.8	192.7	F	F	171.7⁵	201.8⁵	F	F
2	Inland Valley Drive/Clinton Keith Road	DIF	TS	1	0	1	0	0	0	0	1	1	1	1	1	0			43.3	59.9	D	F ⁶	44.2	64.1	F ⁶	F ⁶
3	Inland Valley Drive/Prielipp Road	DIF	AWS	0	0	0	1	0	1	1	1	0	0	1	1			11.0	19.4	B	C	11.1	19.7	B	C	
4	Salida Del Sol/Clinton Keith Road	TUMF	CSS	0	1	0	0	1	0	1	1	0	0	1	0			656.9	1,444.6	F	F	738.4⁵	1,627.6⁵	F	F	
5	Driveway 1/Prielipp Road	Project	CSS	0	1	0	0	1	0	0	1	0	0	1	0			—	—	—	—	15.0	18.7	B	C	
6	Elizabeth Lane/Clinton Keith Road	TUMF	CSS	0	1	0	0	1	d	1	1	0	1	1	d			1,704.3	5,805.5	F	F	2,262.4⁵	6,678.1⁵	F	F	
7	Elizabeth Lane/Driveway 2	Project	CSS	0	1	0	0	1	0	0	1	0	0	0	0			—	—	—	—	9.1	9.2	A	A	
8A	Elizabeth Lane/Driveway 3	Project	CSS	0	1	0	0	1	0	0	1	0	0	0	0			—	—	—	—	8.5	8.6	A	A	
8B	Elizabeth Lane/Driveway 4	Project	CSS	0	1	0	0	1	0	0	1	0	0	0	0			—	—	—	—	8.5	8.6	A	A	
9	Elizabeth Lane/Prielipp Road	Project	CSS	0	1	d	0	1	0	1	1	0	1	1	0			16.0	19.7	C	C	16.7	20.2	C	C	

Source: Urban Crossroads 2015

1. TUMF funded intersections are based on the January 2015 Southwest Zone 5-year Transportation Improvement Program Amendment (**Appendix 3.11**); DIF funded intersections are based on the City of Wildomar Impact Fee Study Report (City of Wildomar 2014).
2. AWS = all-way stop; CSS = cross-street stop; TS = traffic signal
3. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. (L = left; T = through; R = right; d= de facto right turn lane). A through lane shown opposite of a nonexistent intersection leg denotes a shared left-right turn lane rather than an actual through lane.
4. Delay and LOS calculated using Traffix (Version 8.0 R1, 2008) for signalized and unsignalized intersections. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and LOS for the worst individual movement (or movements sharing a single lane) are shown.
5. Project impact related to an increase in the peak-hour delay of more than 5 seconds
6. V/C is greater than 1.00; LOS F
Bold = Unsatisfactory level of service
Bold = Significant impact as defined by City of Wildomar standards

3.11 TRAFFIC AND CIRCULATION

As shown in **Table 3.11-10**, the George Avenue/Clinton Keith Road, Salida Del Sol/Clinton Keith Road, and Elizabeth Lane/Clinton Keith Road intersections are anticipated to experience unacceptable level of service during both the AM and PM peak hours during the Opening Year (2017) without the project. In addition, the Inland Valley Drive/Clinton Keith Road intersection will operate at an unacceptable level of service during the PM peak hour in 2017 without the project.

The addition of project traffic in the Opening Year (2017) is not anticipated to result in any additional deficient intersection beyond those identified for 2017 without the project, with the exception of the Inland Valley Drive/Clinton Keith Road intersection, which would experience a reduction in level of service from the acceptable LOS D to the unacceptable LOS F during the AM peak hour. Furthermore, the Salida Del Sol/Clinton Keith Road and Elizabeth Lane/Clinton Keith Road intersections were found to warrant a traffic signal under the Opening Year 2017 With Project scenario (Urban Crossroads 2015, p. 53). A signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate to a poor level of service.

As previously described, a project's contribution to a cumulatively significant impact can be reduced to less than significant if the project implements or funds its fair share of improvements designed to alleviate the potential cumulative impact. As enforced by City Municipal Code Chapter 3.40, Western Riverside County Transportation Uniform Mitigation Fee, and the recently adopted City Traffic Signal Development Impact Fee (DIF) (Article I, Development Impact Fees, of Chapter 3.44),¹ the project applicant will be required to participate in the funding of off-site improvements, including traffic signals that are needed to serve cumulative traffic conditions. Specifically, this will be done through the payment of Western Riverside County Transportation Uniform Mitigation Fees and City of Wildomar Development Impact Fees. Per Municipal Code Chapters 3.40 and 3.44, these fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with projected population increases.

Each of the following improvements has been identified as being included as part of the TUMF funding program or City DIF funding program.

George Avenue/Clinton Keith Road (#1)

- Restripe the eastbound right turn lane as a shared through-right turn lane (TUMF)
- Construct a westbound shared through-right turn lane (TUMF)

Inland Valley Drive/Clinton Keith Road (#2)

- Construct an eastbound through lane (TUMF)
- Construct a westbound through lane (TUMF)

¹ During its June 10, 2015, meeting, the City Council adopted Resolution No. 2015-24, Chapter 3.44 (City Traffic Signal Development Impact Fee) of the City of Wildomar Municipal Code and approved Ordinance No. 106, which repeals Chapter 10.40 (Traffic Signal Cost Mitigation Fee Program) of the City's Municipal Code.

Salida Del Sol/Yamas Drive/Clinton Keith Road (#4)

- Construct an eastbound shared through-right turn lane (TUMF)
- Construct a westbound left turn lane (TUMF)

Elizabeth Lane/Clinton Keith Road (#6)

- Construct an eastbound shared through-right turn lane (TUMF)
- Construct a westbound shared through-right turn lane (TUMF)

In addition to the TUMF and DIF funding programs, the project applicant will be required to participate in a fair-share contribution, as directed by the City. When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. As such, mitigation measure **MM 3.11.2** requires a 2-percent fair share contribution for Salida Del Sol/Yamas Drive/Clinton Keith Road and a 2.8-percent fair share contribution for Elizabeth Lane/Clinton Keith Road (as calculated by Urban Crossroads (2015)) fair-share contribution. Applicant fees are required to be received prior to occupancy of the proposed project.

Mitigation Measures

MM 3.11.2 The project applicant shall be required to construct or pay its fair share of the following traffic improvements:

Salida Del Sol/Yamas Drive/Clinton Keith Road (#4)

- Install a traffic signal
- Construct a northbound left turn lane
- Construct a northbound shared through-right turn lane
- Construct a southbound left turn lane

Elizabeth Lane/Clinton Keith Road (#6)

- Install a traffic signal
- Construct a northbound left turn lane
- Restripe the southbound approach to provide one left turn lane and one shared through-right turn lane

The effectiveness of implementation of these transportation improvement strategies is shown in **Table 3.11-11**.

3.11 TRAFFIC AND CIRCULATION

**TABLE 3.11-11
INTERSECTION ANALYSIS FOR OPENING YEAR (2017) WITH PROJECT CONDITIONS – WITH IMPROVEMENTS**

#	Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
1	George Avenue/Clinton Keith Road													171.7	201.8	F	F	
	– without improvements	TS	1	1	0	1	1	1	1	1	1	1	1					d
	– with improvements	TS	1	1	0	1	1	1	1	2	0	1	2					0
2	Inland Valley Drive/Clinton Keith Road													44.2	64.1	F ⁴	F ⁴	
	– without improvements	TS	1	0	1	0	0	0	0	1	1	1	1					0
	– with improvements	TS	1	0	1	0	0	0	0	2	1	1	2					0
4	Salida Del Sol/Clinton Keith Road													738.4	1,627.6	F	F	
	– without improvements	CSS	0	1	0	0	1	0	1	1	0	0	1					0
	– with improvements	TS	1	1	0	1	1	0	1	2	0	1	1					0
6	Elizabeth Lane/Clinton Keith Road													2,262.4	6,678.1	F	F	
	– without improvements	CSS	0	1	0	0	1	d	1	1	0	1	1					d
	– with improvements	TS	1	1	0	1	1	0	1	2	0	1	2					0

Source: Urban Crossroads 2015

1. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. (L = left; T = through; R = right; d = de facto right turn lane). A through lane shown opposite of a nonexistent intersection leg denotes a shared left-right turn lane rather than an actual through lane.
2. Delay and LOS calculated using *Traffic* (Version 8.0 R1, 2008) for signalized and unsignalized intersections. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and LOS for the worst individual movement (or movements sharing a single lane) are shown.
3. AWS = all-way stop; CSS = cross-street stop; TS = traffic signal
4. V/C is greater than 1.00; LOS F
Bold = Unsatisfactory level of service

As shown in **Table 3.11-11**, implementation of the proposed mitigation measures will ensure that all intersections operate at an acceptable level of service under the Opening Year (2017) With Project Conditions scenario.

However, the City does not have the authority to implement TUMF funded program improvements independent of the Riverside County Transportation Commission and cannot be certain that the other projects shown in **Table 4-3** of the TIA (**Appendix 3.11**) will be built and will pay to address their impacts at the intersections addressed in **MM 3.11.2**. Without certain funding, the City cannot guarantee that the proposed improvements will be constructed as proposed by mitigation measure **MM 3.11.2**.

Because the City cannot be certain that the improvements will occur, the EIR must assume that the improvements may not occur and that the project impacts would remain as shown in **Table 3.11-10**. As shown in **Table 3.11-10**, the intersection analysis for opening year 2017 would result in significant impacts at George Avenue/Clinton Keith Road (Intersection #1); Inland Valley Drive/Clinton Keith Road (Intersection #2); Salida Del Sol/Clinton Keith Road (Intersection #4); and Elizabeth Lane/Clinton Keith Road (Intersection #6). While the City will collect fees representing the proportionate share of the proposed project's impact at the intersections identified in mitigation measure **MM 3.11.2**, for these reasons, this impact remains **significant and unavoidable**.

Roadway or Traffic Hazard (Standard of Significance 4)

Impact 3.11.3 Implementation of the proposed project will not result in increased hazards due to a design feature or incompatible uses. This impact is considered **less than significant**.

The City of Wildomar implements development standards designed to ensure standard engineering practices are used for all improvements. The proposed project would be checked for compliance with these standards as part of the review process conducted by the City. The project includes improvements to the transportation and circulation system surrounding the site, and all such improvements would be designed and constructed to local, regional, and federal standards. As such, they would not introduce any hazardous design features.

The project is proposed to have access on Prielipp Road via Driveway 1 and Elizabeth Lane via Driveway 2 and Driveway 3. All three project driveways are proposed to be full access. Construction of on-site and site-adjacent improvements would occur in conjunction with adjacent project development activity or as needed for project access purposes. The site access driveway improvements for the project are included in the Traffic Impact Analysis and described in **Table 3.11-12**.

3.11 TRAFFIC AND CIRCULATION

**TABLE 3.11-12
SITE ACCESS DRIVEWAY IMPROVEMENTS**

#	Access Driveway	Funding Source	Site Access Driveway Improvement
5	Driveway 1/Prielipp Road	Project Applicant	Installation of a stop control on the southbound approach and construction of the intersection with the following geometrics: <ul style="list-style-type: none"> • Northbound approach – N/A • Southbound approach – one shared left-right turn lane • Eastbound approach – one shared left-through lane • Westbound approach – one shared through-right turn lane
7	Elizabeth Lane/Driveway 2	Project Applicant	Installation of a stop control on the eastbound approach and construction of the intersection with the following geometrics: <ul style="list-style-type: none"> • Northbound approach – one shared left-through lane • Southbound approach – one shared through-right turn lane • Eastbound approach – one shared left-right lane • Westbound approach – N/A
8A	Elizabeth Lane/Driveway 3	Project Applicant	Installation of a stop control on the eastbound approach and construction of the intersection with the following geometrics: <ul style="list-style-type: none"> • Northbound approach – one shared left-through lane • Southbound approach – one shared through-right turn lane • Eastbound approach – one shared left-right lane • Westbound approach – N/A
8B	Elizabeth Lane/Driveway 4	Project Applicant	Installation of a stop control on the eastbound approach and construction of the intersection with the following geometrics: <ul style="list-style-type: none"> • Northbound Approach: one shared left-through lane • Southbound Approach: one shared through-right turn lane • Eastbound Approach: one shared left-right turn lane • Westbound Approach: N/A
9	Elizabeth Lane/Prielipp Road	Project Applicant	Installation of stop controls on the northbound and eastbound approaches and construction of the intersection with the following geometrics: <ul style="list-style-type: none"> • Northbound approach – one shared left-through-right turn lane • Southbound approach – one shared left-through-right turn lane • Eastbound approach – one left turn lane and one shared through-right turn lane • Westbound approach – one left turn lane and one shared through-right turn lane

Source: *Urban Crossroads 2015*

Additionally, as part of the development, the project would construct improvements on the site-adjacent roadways of Bunny Trail, Prielipp Road, and Elizabeth Lane. Roadway improvements necessary to provide site access are assumed to be constructed in conjunction with site development and are described below. These improvements would be constructed as adjacent portions of the project are developed.

On-Site Roadway Improvements

Bunny Trail – Bunny Trail is a future east-west-oriented roadway located along the project's northern boundary. It is proposed to be constructed at its ultimate half-section width as a collector (74-foot right-of-way) between the project's western boundary and Elizabeth Lane.

Prielipp Road – Prielipp Road is an east-west-oriented roadway located along the project's southern boundary. The roadway would be constructed at its ultimate half-section width as a secondary highway (100-foot right-of-way) between the project's western boundary and Elizabeth Lane.

Elizabeth Lane – Elizabeth Lane is a future north-south-oriented roadway located along the project's eastern boundary. It would be constructed at its ultimate half-section width as a collector (74-foot right-of-way) from the project's northern boundary to Prielipp Road.

Wherever necessary, roadways adjacent to the project, site access points, and site-adjacent intersections will be constructed to be consistent with or within the recommended roadway classifications and respective cross sections in the City of Wildomar General Plan Circulation Element. On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project site. As part of the City's review of all improvement plans, sight distance at each project access point will be reviewed with respect to City of Wildomar sight distance standards at the time of preparation of final grading, landscape, and street improvement plans. The proposed project does not include any dangerous design features, curves, or intersections. As such, impacts would be **less than significant**.

Mitigation Measures

None required.

Emergency Access (Standard of Significance 5)

Impact 3.11.4 Implementation of the proposed project could result in temporary blockages of Prielipp Road and Elizabeth Lane and other roadways, causing an impact to emergency access. This impact is considered **potentially significant**.

All of the roadways proposed with the project meet the City's design standards for access. During construction of improvements associated with the project, roadways may be temporarily blocked or subject to detours and delays, which could temporarily affect emergency access. Construction of the project will require the export of materials from the site and import of construction materials to the site. The exported materials will be transported via dump trucks. Each truck will generate one inbound and one outbound trip, accounting for a total of two truck trips per load of material exported. Export/import of materials is anticipated to consist of the export of soil from the site (approximately 34,497 cubic yards) and the importation of raw building materials, concrete, asphalt, etc.

In order to minimize the impact of construction truck traffic to the surrounding roadway network, trucks will utilize the most direct route between the site and I-15 via Clinton Keith Road. As required by mitigation measure **MM 3.11.4**, the export of materials will occur during off-peak hours in order to have a minimal traffic impact to the surrounding roadway network. Specifically, the hauling trips will be limited during the AM and PM peak commute hours. A construction traffic management plan will be implemented for the duration of the construction phase. Both Riverside County and the City of Wildomar require traffic management plans (TMP) for large-

3.11 TRAFFIC AND CIRCULATION

scale construction projects. A TMP is prepared through coordination with emergency services personnel and made part of the construction requirements placed on the contractor. The TMP often requires public notice of construction schedules as well as contact information in case of emergency or concern with the construction site and/or roadways. A TMP can be customized to avoid construction during special events, holidays, or other periods of intense traffic demand. Of particular focus in a TMP is a requirement to ensure access to adjacent homes and property during the construction process. Coordination of the TMP with local and regional emergency personnel is required to ensure consistency. The following mitigation measure establishes the requirement for the TMP and minimizes the effect of construction activity on emergency access.

After construction, emergency access throughout the project site will be developed in accordance with applicable ordinances, standard conditions of approval, and permits related to emergency access and reduce this impact to a less than significant level.

Mitigation Measures

MM 3.11.4 The project applicant shall prepare and implement a traffic management plan (TMP) to minimize inconveniences during construction. Included among the provisions, the contractor shall coordinate with the City of Wildomar, Riverside County, and local police, fire, and emergency medical service providers regarding construction scheduling and any other practical measures to maintain adequate access to properties and response times. The TMP shall also limit construction activity to the extent feasible, and limit all soil export activities to occur outside of the typical weekday morning (7:00 AM to 9:00 AM) and weekday evening (4:00 PM to 6:00 PM) peak commute hours. The TMP shall include contact information for the general public who may have questions concerning the project and access to their property. Two-way traffic through the construction zone shall be maintained throughout the construction period.

Timing/Implementation: Prior to and during construction

Enforcement/Monitoring: City of Wildomar Public Works and Planning Departments

Implementation of mitigation measure **MM 3.11.4** will reduce this impact to a **less than significant** level.

Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities (Standard of Significance 6)

Impact 3.11.5 Implementation of the proposed project will not conflict with adopted policies, plans, or programs supporting alternative transportation. This is considered a **less than significant** impact.

The addition of population proposed by the project has the potential to increase the demand for public transit. There is one transit route that could serve the project, RTA Route 23. An RTA Route 23 bus stop is located at the corner of Elizabeth Lane and Prielipp Road. There is currently little pedestrian and bicycle activity in the area, and no trails are currently planned in the immediate vicinity of the project site. As such, the proposed project would provide the opportunity for RTA to expand its service area along Prielipp Road to better meet the needs of not only the proposed project but those residing and working in proximity to it. Additionally,

existing transit options would remain intact and not otherwise be affected by the project. Therefore, impacts related to existing alternative transportation would not result from the project, and the proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation or the expansion of alternative transportation. Therefore, a **less than significant** impact would occur in terms of alternative transportation.

Mitigation Measures

None required.

3.11.6 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

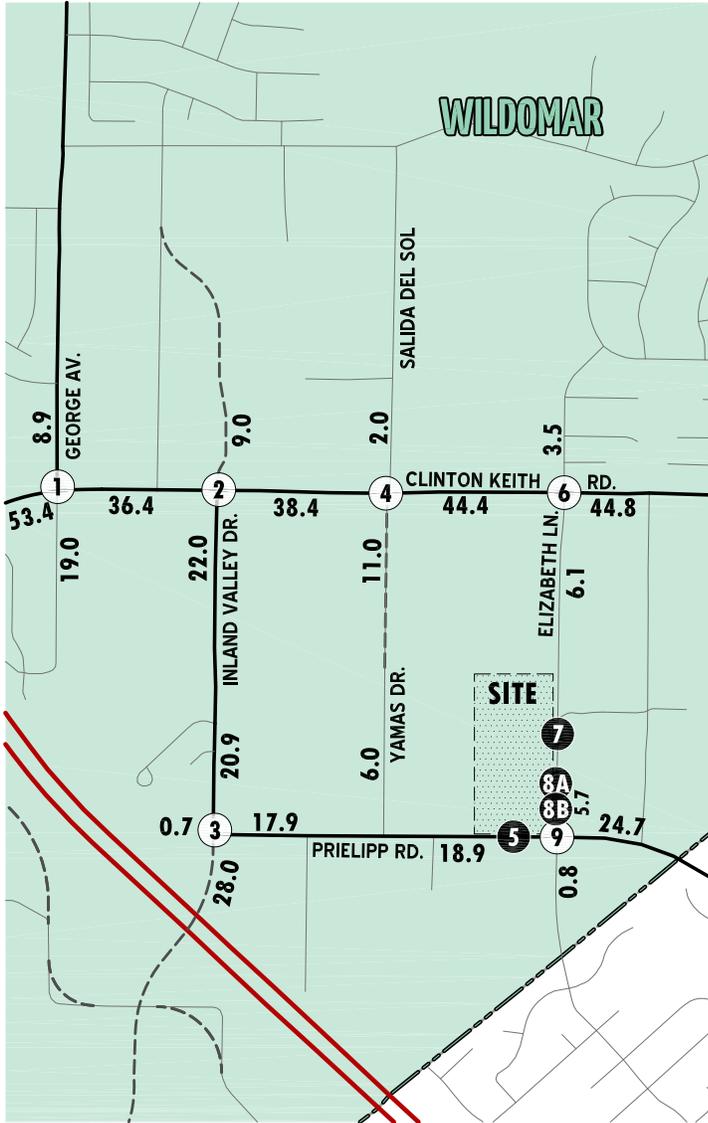
The cumulative setting includes the buildout population and land use mix of the City of Wildomar General Plan. Additionally, a cumulative project list was developed for the purposes of this cumulative analysis. A cumulative development location map and a summary of cumulative development land uses are shown in **Appendix 3.11-A**. The AM and PM peak-hour volumes as well as the ADT that can be expected for Cumulative (Post-2035) Without Project traffic conditions are shown on **Figure 3.11-9**.

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HORIZONS



1 George Av. & Clinton Keith Rd. 	2 Inland Valley Dr. & Clinton Keith Rd. 	3 Inland Valley Dr. & Prielipp Rd.
4 Salida Del Sol/ Yamas Dr. & Clinton Keith Rd. 	5 Driveway 1 & Prielipp Rd. 	6 Elizabeth Ln. & Clinton Keith Rd.
7 Elizabeth Ln. & Driveway 2 <p style="text-align: center;">Future Intersection</p>	8A Elizabeth Ln. & Driveway 3 <p style="text-align: center;">Future Intersection</p>	8B Elizabeth Ln. & Driveway 4 <p style="text-align: center;">Future Intersection</p>
9 Elizabeth Ln. & Prielipp Rd. 		

LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

26(31) = AM(PM) PEAK HOUR VOLUMES

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-9
Cumulative Without Project ADT

The intersection analysis results for Cumulative (Post-2035) Without Project conditions are summarized in **Table 3.11-15**, which indicates that all study area intersection locations will experience acceptable level of service (i.e., LOS C or D or better) during both of the peak hours with the exception of the intersections shown in **Table 3.11-13**.

**TABLE 3.11-13
UNACCEPTABLY OPERATING INTERSECTIONS – CUMULATIVE (POST-2035) WITHOUT PROJECT CONDITIONS**

ID	Intersection Location	Jurisdiction
3	Inland Valley Drive/Prielipp Road – LOS F AM and PM peak hours	Wildomar
4	Salida Del Sol/Yamas Drive/Clinton Keith Road – LOS F AM and PM peak hours	Wildomar
6	Elizabeth Lane/Clinton Keith Road – LOS F AM and PM peak hours	Wildomar
9	Elizabeth Lane/Prielipp Road – LOS F AM and PM peak hours	Wildomar

Source: *Urban Crossroads 2015*

Traffic signal warrant analysis for Cumulative (Post-2035) Without Project conditions resulted in the following intersection warranting a traffic signal in addition to those identified under Opening Year (2017) Without Project conditions as shown in **Table 3.11-14**.

**TABLE 3.11-14
INTERSECTIONS WARRANTING TRAFFIC SIGNAL– CUMULATIVE (POST-2035) WITHOUT PROJECT CONDITIONS**

ID	Intersection Location	Jurisdiction
3	Inland Valley Drive/Prielipp Road	Wildomar
9	Elizabeth Lane/Prielipp Road	Wildomar

Source: *Urban Crossroads 2015*

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Impacts on City Transportation Facilities

Impact 3.11.6 When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed project would contribute to cumulative traffic volumes in the region that result in significant impacts to level of service and operations. However, with the payment of off-site improvement fees, this is considered a **less than cumulatively considerable** impact.

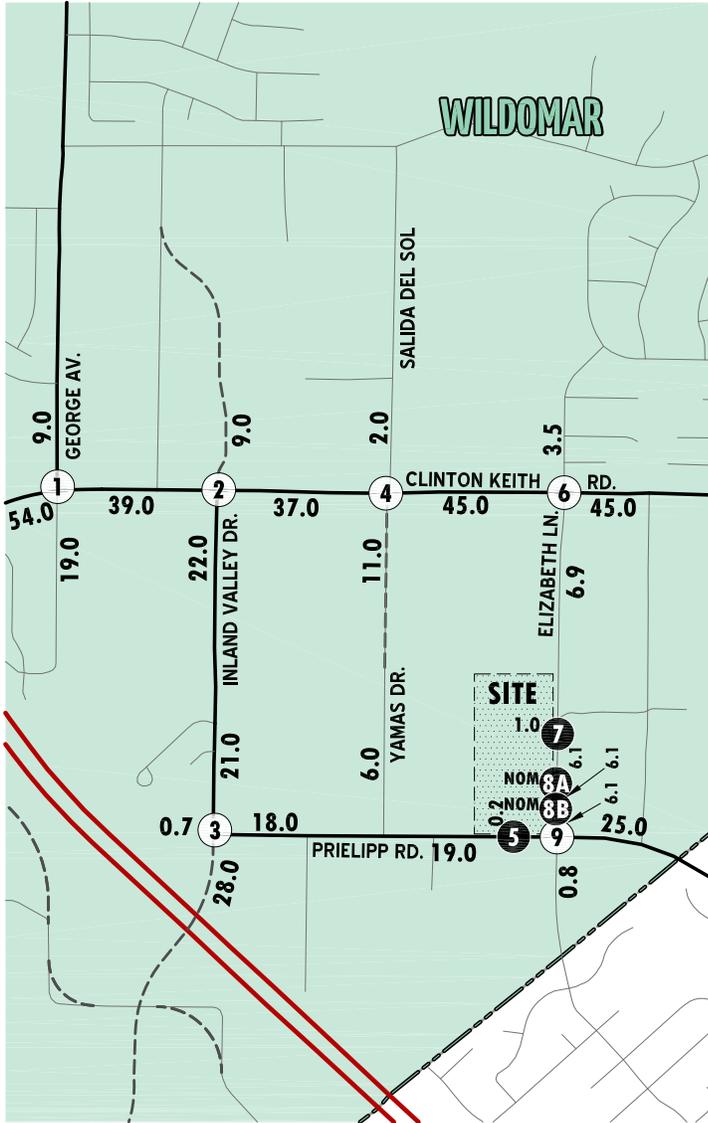
Level of service calculations were conducted for the study intersections to evaluate their operations. **Figure 3.11-10** shows the ADT volumes that can be expected for Cumulative (Post-2035) With Project conditions. Cumulative (Post-2035) With Project AM and PM peak-hour intersection turning movement volumes are also shown in **Figure 3.11-10**. The intersection analysis results are summarized in **Table 3.11-15**, which also presents Cumulative (Post-2035) peak-hour traffic data without the proposed project.

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HORIZONS



1 George Av. & Clinton Keith Rd. 470(210) 57(90) 48(102) 69(24) 1230(1774) 112(131) 481(287) 312(1496) 111(229)	2 Inland Valley Dr. & Clinton Keith Rd. 64(102) 190(241) 45(108) 62(103) 1150(1316) 378(345) 73(94) 945(1266) 442(314)	3 Inland Valley Dr. & Prielipp Rd. 32(4) 470(686) 200(268) 228(230) 15(5) 380(574) 20(26) 10(17) 0(0) 0(0) 400(760) 380(700)
4 Salida Del Sol/ Yamas Dr. & Clinton Keith Rd. 27(60) 51(58) 74(69) 59(80) 1211(1449) 370(126) 28(98) 1002(1593) 159(81)	5 Driveway 1 & Prielipp Rd. 3(2) 0(0) 6(4) 2(6) 966(659) 1(4) 1(3) 374(1309) 9(30)	6 Elizabeth Ln. & Clinton Keith Rd. 62(27) 43(40) 25(62) 23(20) 1249(1566) 128(69) 52(89) 1216(1590) 201(137)
7 Elizabeth Ln. & Driveway 2 12(37) 360(246) 38(24) 11(7)	8A Elizabeth Ln. & Driveway 3 0(1) 30(203) 0(1) 202(303)	8B Elizabeth Ln. & Driveway 4 0(1) 30(202) 0(1) 20(303)
9 Elizabeth Ln. & Prielipp Rd. 175(72) 7(13) 125(119) 123(136) 755(558) 17(32) 67(164) 295(1121) 12(24)	36(29) 1(3) 42(23)	

LEGEND:

- 10.0** = VEHICLES PER DAY (1000'S)
- 26(31) = AM(PM) PEAK HOUR VOLUMES
- NOM** = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source: Urban Crossroads

NOT TO SCALE



Figure 3.11-10
Cumulative With Project ADT

TABLE 3.11-15
INTERSECTION ANALYSIS FOR CUMULATIVE (2035) CONDITIONS – WITH AND WITHOUT PROJECT

#	Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Without Project				With Project			
			Northbound			Southbound			Eastbound			Westbound			Delay ² (secs.)		Level of Service		Delay ² (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	George Avenue/Clinton Keith Road	TS	1	1	0	1	2	1	2	3	1	1	3	1	48.7	47.4	D	D	49.2	47.9	D	D
2	Inland Valley Drive/Clinton Keith Road	TS	1	2	1	1	2	1	2	3	1	2	3	1	41.7	51.8	D	D	41.7	52.5	D	D
3	Inland Valley Drive/Prielipp Road	AWS	1	1	0	1	2	0	1	1	0	1	1	0	159.4	616.5	F	F	159.5	616.5	F	F
4	Salida Del Sol/Clinton Keith Road	CSS	0	1	0	0	1	0	1	1	0	0	1	0	— ⁵	— ⁵	F	F	— ⁵	— ⁵	F	F
5	Driveway 1/Prielipp Road	CSS	0	1	0	0	1	0	0	2	0	0	2	0	—	—	—	—	27.3	110.4	D	F⁴
6	Elizabeth Lane/Clinton Keith Road	CSS	0	1	0	0	1	d	1	2	0	1	2	d	— ⁵	— ⁵	F	F	— ⁵	— ⁵	F	F
7	Elizabeth Lane/Driveway 2	CSS	0	1	0	0	1	0	0	1	0	0	0	0	—	—	—	—	13.3	13.3	B	B
8A	Elizabeth Lane/Driveway 3	CSS	0	1	0	0	1	1	0	1	0	0	0	0	—	—	—	—	10.8	11.1	B	B
8B	Elizabeth Lane/Driveway 4	CSS	0	1	0	0	1	0	0	1	0	0	0	0	—	—	—	—	11.8	12.2	B	B
9	Elizabeth Lane/Prielipp Road	CSS	0	1	d	0	1	0	1	2	0	1	2	0	282.9	1,139.1	F	F	350.4	1,281.3	F	F

Source: Urban Crossroads 2015

- When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. (L = left; T = through; R = right; d = de facto right turn lane). A through lane shown opposite of a nonexistent intersection leg denotes a shared left-right turn lane, not a real through lane.
- Delay and LOS calculated using Traffix (Version 8.0 R1, 2008) for signalized and unsignalized intersections. Per the 2000 Highway Capacity Manual, overall average intersection delay and LOS are shown for intersections with a traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and LOS for the worst individual movement (or movements sharing a single lane) are shown.
- AWS = all-way stop; CSS = cross-street stop; TS = traffic signal
- This calculated deficiency results from the Traffix software, which does not take into account adjacent intersection operations and their effects on "grouping" or "platooning" of cross-street traffic along Prielipp Road. As HCM methodology for intersection operations analysis at a cross-street stop intersection is to report the delay of the most impacted movement, in the case of the northbound left turning vehicles from the cumulative development adjacent to the project, the reported delay is not representative of the average delay experienced by vehicles moving eastward and westward along Prielipp Road or entering and exiting the project on the north side of the street. The combination of Traffix software operations and HCM intersections operations reporting methodology results in a conservative analysis, as the calculations assume a worst-case scenario where cross-street traffic is distributed evenly throughout the analysis-hour which would provide the least amount of "gaps" in traffic flow along Prielipp Road. As it is anticipated that either or both adjacent intersections of Yamas Drive at Prielipp Road or Elizabeth Lane at Prielipp Road would be signalized in cumulative conditions, it is anticipated that the east-west traffic flow along Prielipp Road will not be uniform and will instead be "grouped" or "platooned" by these traffic signals, resulting in gaps for vehicles to enter and exit driveways. In addition, a review of the adjacent cumulative development's site plan reveals that vehicles will have access to the intersection of Elizabeth Lane and Prielipp Road in order to make northbound left turns. In anticipation of future signalization and its effects on traffic flow and the addition of a more accessible entry/exit point for the cumulative development at Elizabeth Lane and Prielipp Road, the intersection of Driveway 1 and Prielipp Road is not anticipated to operate at deficient LOS (LOS D or worse) during either peak hour.
- Delay is theoretically infinite.

Bold = Unsatisfactory level of service; **Bold** = Significant cumulative impact

3.11 TRAFFIC AND CIRCULATION

As previously described, a project's contribution to a cumulatively significant impact can be reduced to less than significant if the project implements or funds its fair share of improvements designed to alleviate the potential cumulative impact. As enforced by City Municipal Code Chapter 3.40, Western Riverside County Transportation Uniform Mitigation Fee, and the adopted City Traffic Signal Development Impact Fee (DIF) (Article I, Development Impact Fees, of Chapter 3.44), the project applicant will be required to participate in the funding of off-site improvements, including traffic signals that are needed to serve cumulative traffic conditions. Specifically, this will be done through the payment of Western Riverside County TUMF, City of Wildomar DIF, and a fair-share contribution as directed by the City. Per Municipal Code Chapters 3.40 and 3.44, these fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with projected population increases.

Transportation improvements have been listed under Impact 3.11.2. Each of these transportation improvements has been identified as being included as part of a TUMF funding program, City DIF funding program, or fair-share contribution. Applicant fees are required to be received prior to occupancy of the proposed project. The effectiveness of implementation of these transportation improvement strategies is shown in **Table 3.11-16**.

TABLE 3.11-16
INTERSECTION ANALYSIS FOR CUMULATIVE (POST-2035) WITH PROJECT CONDITIONS – WITH IMPROVEMENTS

#	Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
4	Salida Del Sol/Clinton Keith Road																	
	– without improvements	CSS	0	1	0	0	1	0	1	2	0	0	2	0	— ⁵	— ⁵	F	F
	– with improvements	TS	1	1	0	1	1	0	1	2	0	1	2	0	31.5	26.8	C	C
6	Elizabeth Lane/Clinton Keith Road																	
	– without improvements	CSS	0	1	0	0	1	D	1	2	0	1	2	0	— ⁵	— ⁵	F	F
	– with improvements	TS	1	1	0	1	1	0	1	2	0	1	2	0	23.5	25.3	C	C
9	Elizabeth Lane/Prielipp Road																	
	– without improvements	CSS	0	1	D	0	1	0	1	2	0	1	2	d	350.4	1,281.3	F	F
	– with improvements	TS	1	1	0	1	1	0	1	2	0	1	2	0	20.9	22.3	C	C

Source: Urban Crossroads 2015

1. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. (L = left; T = through; R = right; d= de facto right turn lane). A through lane shown opposite of a nonexistent intersection leg denotes a shared left-right turn lane rather than an actual through lane.
2. Delay and LOS calculated using Traffix (Version 8.0 R1, 2008) for signalized and unsignalized intersections. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross-street stop control, the delay and LOS for the worst individual movement (or movements sharing a single lane) are shown.
3. AWS = all-way stop; CSS = cross-street stop; TS = traffic signal
4. VIC is greater than 1.00; LOS F
5. Delay is theoretically infinite.
Bold= Unsatisfactory level of service

3.11 TRAFFIC AND CIRCULATION

While the short term impacts are considered Significant and Unavoidable, the long term impacts are considered Less than Significant because the City reasonably assumes that other the improvements will eventually be constructed. Other TUMF funded facilities have been constructed in the Wildomar area, most notably the Clinton Keith Interchange, and others are in the process such as Bundy Canyon Road. Therefore, the City reasonably assumes that other impact fees paid by other developments subject to TUMF will eventually produce sufficient revenue to construct the improvements.

Therefore, since the project applicant will be required to participate in the funding of off-site improvements identified above per City Municipal Code Chapter 3.40, Western Riverside County Transportation Uniform Mitigation Fee, and Article I, Development Impact Fees, of Chapter 3.44, this impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

REFERENCES

- Caltrans (California Department of Transportation). 2002. *Guide for the Preparation of Traffic Impact Studies*.
- RCTC (Riverside County Transportation Commission). 2011. *2011 Riverside County Congestion Management Program*.
- RTA (Riverside Transit Agency). 2015. RTA website - About RTA. <http://www.riversidetransit.com/index.php/about-rta/about-rta>.
- Transportation Research Board. 2000. *Highway Capacity Manual 2000*.
- Urban Crossroads. 2015. *"Horizons" (Prielipp Road, APN: 380-250-023) Traffic Impact Analysis, City of Wildomar, California*.

3.11 TRAFFIC AND CIRCULATION

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3.12 POPULATION AND HOUSING

3.12 POPULATION AND HOUSING

This section provides existing population and housing characteristics in Wildomar and evaluates potential population and housing impacts created by the proposed project.

3.12.1 EXISTING SETTING

POPULATION

This section discusses regional (Riverside County) and local (Wildomar) population and housing growth. As shown in **Table 3.12-1**, the growth of Wildomar is predicted to outpace the growth of western Riverside County as a whole.

**TABLE 3.12-1
FORECAST POPULATIONS – WESTERN RIVERSIDE COUNTY AND WILDOMAR**

Year	Western Riverside County		Wildomar	
	Population	Percentage Growth	Population	Percentage Growth
2000	1,236,309	—	14,064	—
2010	1,733,694	40.2%	32,176	128.8%
2020	2,003,412	15.6%	42,475	32.0%
2035	2,466,332	23.1%	53,664	26.3%

Source: Wildomar 2013a, Table 3.8-4

Notes: Population of the Western Riverside subregion, defined by the Western Riverside Council of Governments (WRCOG) as 80% of the unincorporated population and 81% of the incorporated population of Riverside County as a whole.

The City's Housing Element requires the City to redesignate and rezone land to demonstrate that Wildomar has land available for development to meet the City's Regional Housing Needs Allocation (RHNA) for the current planning period and the unmet need from the prior planning period. The City's RHNA for the 2013–2021 planning period is 2,535 dwelling units, and the unmet RHNA for the 2006–2012 planning period is 538 units. The City has completed the redesignations and rezoning required by the Housing Element.

As shown in **Table 3.12-2**, Wildomar's population growth generally kept pace with the growth in the county between 2007 and 2014, except for the year 2009 when growth in Wildomar occurred at a much higher rate than in the county.

**TABLE 3.12-2
POPULATION GROWTH IN RIVERSIDE COUNTY AND WILDOMAR**

Year	Riverside County			Wildomar		
	Population	Change	Percentage Growth	Population	Change	Percentage Change
2007	2,030,054	—	—	23,554	—	—
2008	2,077,183	47,129	2.3%	24,447	893	3.8%
2009	2,109,882	32,699	1.6%	31,374	6,927	28.3%
2010	2,189,641	79,759	3.8%	32,176	802	2.6%

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Year	Riverside County			Wildomar		
	Population	Change	Percentage Growth	Population	Change	Percentage Change
2011	2,205,731	16,090	0.7%	32,414	238	0.7%
2012	2,227,577	21,846	1.0%	32,719	305	0.9%
2013	2,255,653	28,076	1.3%	33,182	463	1.4%
2014	2,279,967	24,314	1.1%	33,718	536	1.6%
2015	2,308,441	28,474	1.2%	34,148	430	1.2%

Sources: DOF 2014, 2015; Wildomar 2013a, Table 3.8-3

HOUSING

Table 3.12-3 illustrates the housing growth in Riverside County and Wildomar since 2007. As with the growth in population, the greatest increase in housing in the city occurred in 2009 with 42.6 percent growth.

**TABLE 3.12-3
HOUSING GROWTH IN RIVERSIDE COUNTY AND WILDOMAR**

Year	Riverside County			Wildomar		
	Total Dwelling Units	New Units	Percentage Growth	Total Dwelling Units	New Units	Percentage Growth
2007	753,286	—	—	7,232	—	—
2008	772,480	19,194	2.6%	7,455	223	3.1%
2009	779,077	6,597	0.9%	10,630	3,175	42.6%
2010	800,707	21,630	2.8%	10,806	176	1.7%
2011	804,913	4,206	0.5%	10,840	34	0.3%
2012	807,970	3,057	0.4%	10,847	7	0.1%
2013	812,234	4,264	0.5%	10,927	80	0.7%
2014	817,008	4,774	0.6%	11,047	120	1.1%

Sources: DOF 2014; Wildomar 2013a, Table 3.8-3

Table 3.12-4 summarizes the characteristics of the existing regional and local housing in 2014. According to California Department of Finance estimates, there are currently (2014) 817,008 housing units in Riverside County. Single-family housing accounts for just over 74 percent of all housing units. Comparatively, of the total 11,047 housing units in Wildomar, approximately 69 percent are single-family homes. In 2014, approximately 86 percent of the housing units in the county were occupied, leaving approximately 14 percent vacant. In Wildomar, approximately 92 percent of the housing units were occupied, with less than 8 percent of the city's housing inventory vacant. Slightly more than three persons on average resided in each occupied housing unit in both Riverside County and Wildomar; the average is slightly higher in Wildomar (3.3 in Wildomar and 3.2 in Riverside County).

**TABLE 3.12-4
EXISTING REGIONAL AND LOCAL HOUSING CHARACTERISTICS – OCCUPANCY/TYPE (2014)**

Area	Total Units	Occupied Units	Vacant Units	Persons per Household	Single-Family Units ¹	Multi-Family Units ²	Mobile Homes
City of Wildomar	11,047	10,215	832	3.3	7,673	513	2,861
Riverside County	817,008	700,413	116,595	3.21	606,485	131,296	79,227

Source: DOF 2014

Notes: 1. Single-Family includes Single Detached and Single Attached categories

2. Multi-Family contains Two to Four and Five Plus categories

3.12.2 REGULATORY FRAMEWORK

STATE

California Housing Policies

State policies affecting land use regulations in cities throughout California are included in housing policies as established by the Housing Element of the Wildomar General Plan. The Housing Element is the primary policy document regarding the development, rehabilitation, and preservation of housing for all economic segments of the population within a jurisdiction and is required by law. Accordingly, the Housing Element identifies and analyzes the existing and projected housing needs and states goals toward providing sufficient housing. The element contains policies, quantified objectives, and implementation programs for the preservation, improvement, and development of housing in Wildomar.

State law sets out a process for determining each local jurisdiction’s fair share of regional housing needs, called the Regional Housing Needs Allocation. As a first step in the process, the California Department of Housing and Community Development assigns each regional council of governments a needed number of new housing units for that region, including affordable housing.

California Relocation Assistance Act

The California Relocation Assistance Act (Government Code Section 7260, et seq.) establishes uniform policies to provide for the fair and equitable treatment of people displaced from their homes or businesses as a direct result of state and/or local government projects or programs. The California Relocation Assistance Act requires that comparable replacement housing be made available to displaced persons within a reasonable period of time prior to the displacement. Displaced persons or businesses are assured payment for their acquired property at fair market value. Relocation assistance in the form of advisory assistance and financial benefits would be provided at the local level. This includes aid in finding a new home location, payments to help cover moving costs, and additional payments for certain other costs.

LOCAL

Southern California Association of Governments – Regional Comprehensive Plan

The 2008 Regional Comprehensive Plan provides regional forecasts and policies for dealing with anticipated growth including population, housing, and employment throughout Southern

3.12 POPULATION AND HOUSING

California. Growth projections contained in the plan are based on a compilation of county and local projections. Forecasts are used as the basis for formulation of regional plans dealing with regional air quality, housing, transportation and circulation, and other infrastructure issues.

City of Wildomar General Plan

The City of Wildomar has adopted the County of Riverside's General Plan, which contains goals and policies regarding housing and population. In 2013, the City of Wildomar updated the Housing Element to pertain to the City's needs. The Housing Element identifies and establishes the City's policies with respect to meeting the needs of existing and future residents. Additionally, the Housing Element establishes policies that will guide City decision-making and sets forth an action plan to implement its housing goals (Wildomar 2013b).

The City of Wildomar's Housing Element contains 24 policies related to energy conservation, equal housing opportunities, conservation and improvement of housing stock, special needs groups, governmental constraints, and adequate housing.

3.12.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Based on the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist, a population and/or housing impact is considered significant if implementation of the project would result in any of the following:

- 1) 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).
- 2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- 3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

METHODOLOGY

Evaluation of potential population/housing/employment impacts is based on demographic information provided by the US Census Bureau website for Wildomar. In addition, the Wildomar General Plan and Housing Element were referenced. For the purposes of determining population and housing impacts, the fiscal impact analysis prepared by the Natelson Dale Group, Inc. (2014) estimates an increase in population of 2.5 persons per townhome and 1.2 persons per each assisted/skilled living unit. These factors were used to estimate the population of the proposed project.

PROJECT IMPACTS AND MITIGATION MEASURES

Induce Substantial Population Growth (Standard of Significance 1)

Impact 3.12.1 The project would not 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). This impact is considered **less than significant**.

The proposed project includes the development of 138 townhomes and 86 assisted living/skilled nursing housing units. The fiscal impact analysis prepared by the Natelson Dale Group (2014) estimates an increase in population of 2.5 persons per townhome and 1.2 persons per each assisted/skilled living unit. Considering this estimate, the project will result in 345 persons in townhomes and 104 persons in assisted/skilled living units. An increase of 449 persons in the city equates to approximately 1.3 percent of Wildomar's estimated 2015 population of 34,148. This estimation is conservative in that it does not account for households that relocate to the project site from within Wildomar.

The City's RHNA for the 2013–2021 planning period is 2,535 dwelling units. Based on the city's average household size of 3.3 residents per home, as shown in **Table 3.12-4**, the additional 2,535 housing units would result in an increase in population of approximately 8,366. The proposed project is within the number of additional units and residents that were estimated and accounted for in the City's Housing Element, which was adopted after an EIR was certified for the element.

The project does not extend infrastructure to previously undeveloped areas, nor is the project of such a magnitude that it would cause significant numbers of people to relocate to the area solely for the purpose of being close to the project site for employment purposes. Once developed, the assisted living/skilled nursing facility is anticipated to employ approximately 76 persons (Natelson Dale Group 2014, p. 2). Because of the small percentage by which the project would incrementally increase the city's overall population, the fact that the growth is within the RHNA projections of the Housing Element, and the growth is also within the forecast population for the city, as shown in **Table 3.12-1**, impacts related to this issue would be **less than significant**.

Mitigation Measures

None required.

Housing Displacement/Replacement Housing (Standard of Significance 2)

Impact 3.12.2 The project would not displace substantial numbers of existing housing and would not necessitate the construction of replacement housing elsewhere. **No impact** would occur.

The project site is currently vacant and contains no housing and/or residents. The proposed project will result in the provision of 224 additional dwelling units, which will provide additional housing supply in Wildomar. Therefore, the proposed project would not displace substantial numbers of existing housing or necessitate the construction of replacement housing elsewhere, and thus would have **no impact**.

Mitigation Measures

None required.

Population Displacement/Replacement Housing (Standard of Significance 3)

Impact 3.12.3 The project would not displace substantial numbers of people or necessitate the construction of replacement housing elsewhere. **No impact** would occur.

3.12 POPULATION AND HOUSING

As previously stated, the project site is currently vacant and contains no housing and/or residents. The proposed project will result in the provision of 224 additional dwelling units, which will provide additional housing supply in the city. Therefore, the proposed project would not displace substantial numbers of existing people or necessitate the construction of replacement housing elsewhere. Thus, it would have **no impact**.

Mitigation Measures

None required.

3.12.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

The setting for the cumulative analysis generally includes Wildomar and the surrounding cities of Lake Elsinore and Canyon Lake to the north and northwest, Murrieta to the south and southeast, and Menifee to the east and all existing, proposed, approved, and planned projects in these areas. **Table 3.12-5** illustrates the growth forecast for these cities as projected by the Western Riverside Council of Governments (WRCOG).

**TABLE 3.12-5
FUTURE GROWTH FORECASTS**

City	Year	
	2020	2035
Wildomar	42,475	53,664
Lake Elsinore	70,500	93,800
Canyon Lake	11,000	11,700
Murrieta	109,300	121,100
Menifee	93,100	119,400

Source: Wildomar 2013a, Table 3.8-4; WRCOG 2011

Development in the cumulative setting area would change the intensity of land uses in the region and would provide additional housing, employment, shopping, and recreational opportunities. This projected regional growth would result in significant environmental effects. The reader is referred to the other technical sections of this EIR for a complete analysis of the anticipated cumulative environmental effects of anticipated regional growth in combination with the proposed project.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Growth Inducement

Impact 3.12.4 The proposed project, in combination with other existing, approved, proposed, and reasonably foreseeable development in Wildomar and the region, could result in substantial growth inducement. This impact is **less than cumulatively considerable**.

Cumulative development in Wildomar would result in substantial, direct population growth through the construction of new housing units and the creation of new employment opportunities. In addition, such development could result in indirect growth through the

extension of existing and the construction of new roadways and infrastructure. However, as described under Impact 3.12.1, the proposed project's potential to result in direct growth inducement is considered a less than significant impact on its own. As is shown in **Table 3.12-5**, Wildomar and surrounding cities are expected to increase in population in the coming years. The proposed project would be located in an area identified for residential and business park development in the Wildomar General Plan; therefore, the project would be consistent with these projected uses. As such, the proposed project would not induce growth not already considered in the General Plan and the population forecasts for the city and surrounding area. As such, this impact is considered to be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.12 POPULATION AND HOUSING

REFERENCES

- DOF (California Department of Finance). 2014. *Table E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2011–2014, with 2010 benchmark*. Accessed March 13, 2015. <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>.
- . 2015. *E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change – January 1, 2014 and 2015*. Accessed May 6. <http://www.dof.ca.gov/research/demographic/>.
- Natelson Dale Group, Inc. 2014. *Prielipp Road Project, City of Wildomar, CA, Fiscal Impact Analysis*.
- Wildomar, City of. 2013a. *Housing Element Update 2013–2021 Draft Environmental Impact Report*.
- . 2013b. *City of Wildomar Housing Element*. <http://www.cityofwildomar.org/uploads/files/planning/Adopted%20Housing%20Element%202012-11-13.pdf>.
- WRCOG (Western Riverside Council of Governments). 2011. *Western Riverside County Growth Forecasts 2010–2035*. http://www.wrcog.cog.ca.us/uploads/media_items/wrcog-growth-forecast-2010-2035.original.pdf.

3.13 LAND USE

This section describes the existing and proposed land uses on the project site, characterizes surrounding land uses, identifies potential conflicts between uses, and discusses project consistency with the City's environmental policy and other applicable planning documents.

3.13.1 ENVIRONMENTAL SETTING

EXISTING LAND USES

The project site is ±20 acres and located on vacant land. One unvegetated drainage feature bisects the project site and meanders from north to south before exiting and then reentering the site near the southwest corner of the property. No structures exist on the property.

CURRENT GENERAL PLAN LAND USE DESIGNATIONS AND ZONING

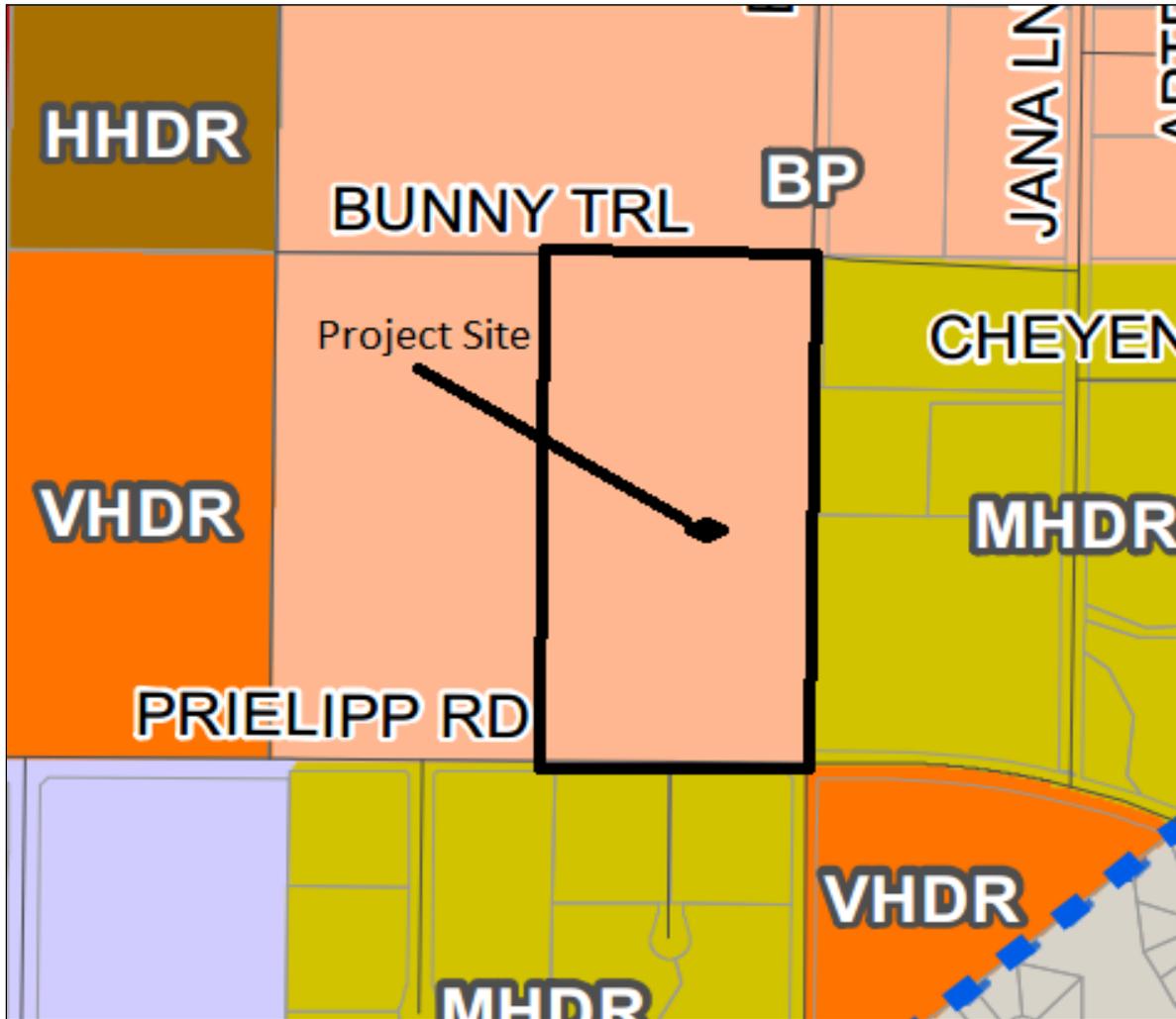
The project site includes one parcel within the city limits (APN 380-250-023). The project site is currently designated in the Wildomar General Plan as Business Park (BP) and zoned Rural Residential (R-R). According to the City's General Plan, the BP land use designation allows employee-intensive uses, including research and development, technology centers, corporate and support office uses, "clean" industry, and supporting retail uses. Building intensity ranges from 0.25 to 0.6 floor area ratio. The Rural Residential zoning district allows low-density residential uses and a variety of other nonresidential uses. **Figures 3.13-1** and **3.13-2** show the project site's General Plan land use designation and zoning district.

ADJACENT LAND USES

Surrounding land uses include a mix of rural and suburban residential development, open space, and a few commercial developments, with vacant land directly to the north. A storage rental facility is located adjacent to the northeast corner of the project site. To the east are rural residences, with higher-density residential land uses beyond. There are rural residences to the south of the site, with higher-density residential land uses and Interstate 15 (I-15) beyond. To the west is vacant land, with an apartment complex beyond. Commercial land uses are also located to the west of the site.

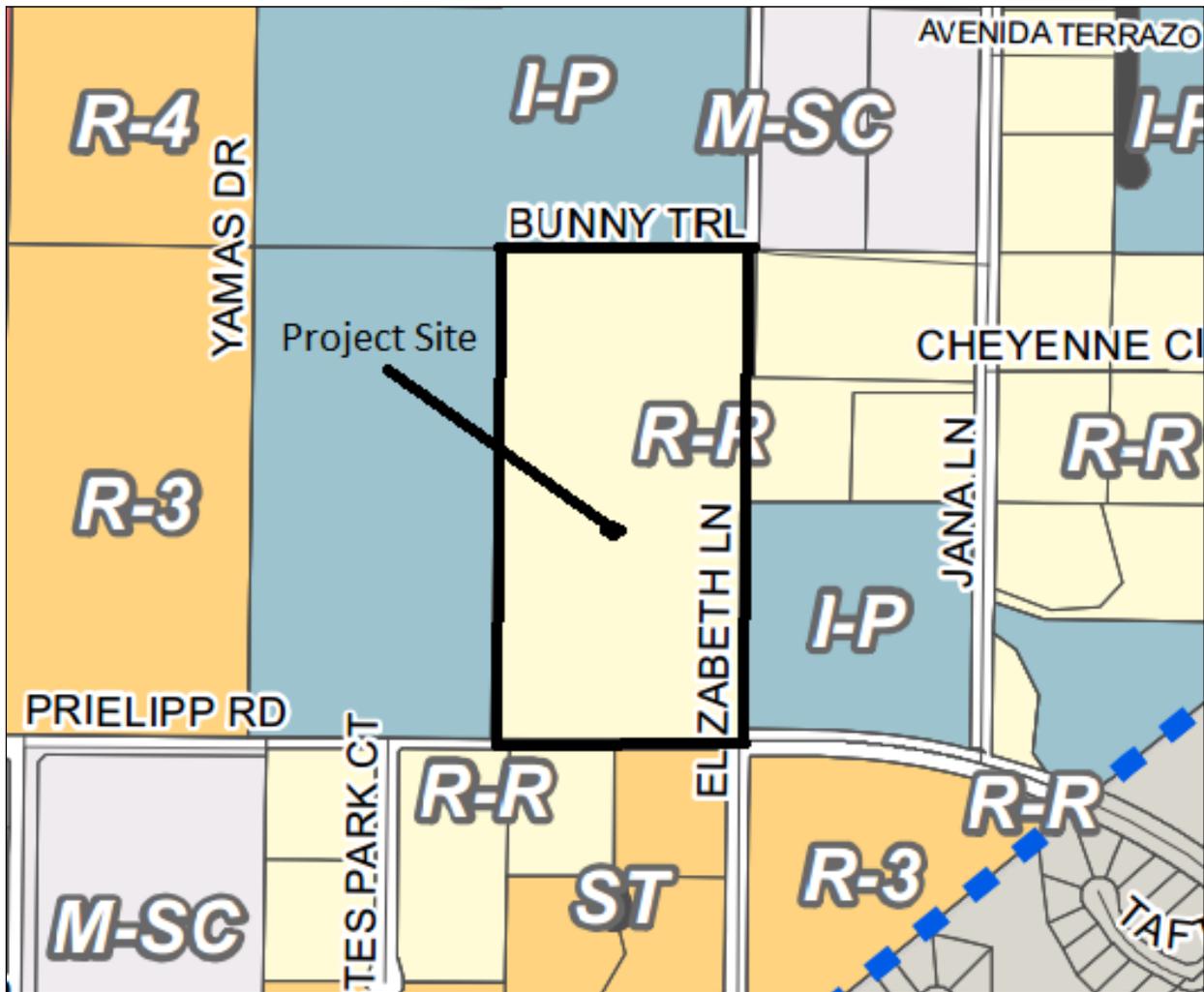
3.13 LAND USE

FIGURE 3.13-1
PROJECT SITE GENERAL PLAN DESIGNATION



Source: Wildomar 2015a

FIGURE 3.13-2
PROJECT SITE ZONING DISTRICT



Source: Wildomar 2015b

3.13 LAND USE

3.13.2 REGULATORY SETTING

REGIONAL

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is an association of all the local governments in the Southern California region. SCAG is the nation's largest metropolitan planning organization, representing 6 counties, 191 cities, including Wildomar, and more than 18 million residents. SCAG undertakes a variety of planning and policy initiatives to encourage a more sustainable Southern California now and in the future. Under the guidance of its Regional Council, SCAG's mission is to collaborate with its partners and facilitate a forum to develop and foster the realization of regional plans that improve the quality of life for residents of Southern California. SCAG's primary responsibility is to prepare all state and federally required transportation plans and programs that are necessary for securing transportation funding for highways, streets and roads, transit, bike and pedestrian facilities, and other transportation modes. SCAG also adopts the Regional Housing Needs Plan allocating affordable housing responsibilities to its member agencies (SCAG 2015).

LOCAL

City of Wildomar

General Plan

The Wildomar General Plan is the long-range guide for growth and development in the city. The General Plan provides a framework for decision-making related to planning and long-term development in the local and regional context. The policy provisions in the General Plan govern decisions relating to land use, traffic circulation, housing, community design, conservation and open space, noise, safety, and community facilities. The General Plan is also a tool to help City staff, City commissions, and the City Council make land use and public investment decisions and provides the framework for the City's Zoning Ordinance. It serves as the guide for the city as it grows over the next 15 to 20 years.

Zoning Ordinance

The Zoning Ordinance and Zoning Map, found in the City's Municipal Code (Chapter 17), provide specific development and land use regulations. Zoning regulations are designed to protect and promote the health, safety, and general welfare of residents, as well as preserve the character and integrity of neighborhoods.

The Wildomar Zoning Ordinance is a key implementation tool for the General Plan. Many of the goals, policies, and actions in the General Plan are achieved through zoning, which regulates public and private development. The City is responsible for ensuring that the Zoning Ordinance and the General Plan are in conformity. In most instances, this consistency will mean that land is designated in the General Plan and zoned for similar uses with similar development standards (i.e., similar densities and minimum parcel sizes). Where zoning and General Plan land use designations are not identical, General Plan policies should be consulted carefully for guidance in amending the Zoning Ordinance for consistency with the General Plan.

City Building Code

The State of California provides minimum standards for building design through the California Building Standards Code (CBSC) (California Code of Regulations, Title 24). Wildomar enforces the CBSC through its Municipal Code. The City Building Code (Wildomar Municipal Code, Title 8) incorporates the CBSC, including recent changes. The CBSC is based on the Uniform Building Code, which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for conditions in California. State regulations and engineering standards related to geology, soils, and seismic activity in the Uniform Building Code are reflected in the CBSC requirements. Through the CBSC, the State of California provides a minimum standard for building design and construction.

Design Standards and Guidelines

The Design Standards and Guidelines are for the use of property owners and design professionals submitting development applications to the City Planning Department and are intended to provide the minimum specifications for land development. Provisions pertain to residential, commercial, industrial, wireless communications facility, and auto sale land uses.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The MSHCP serves as a comprehensive, multi-jurisdictional habitat conservation plan, pursuant to Section (a)(1)(B) of the federal Endangered Species Act, as well as a natural communities conservation plan under the California Natural Community Conservation Planning Act of 2001. The plan encompasses all of Riverside County west of the crest of the San Jacinto Mountains to the Orange County line. The overall biological goal of the MSHCP is to conserve covered species and their habitats, as well as to maintain biological diversity and ecological processes while allowing for future economic growth in a rapidly urbanizing region.

Federal and state wildlife agencies approved permits required to implement the MSHCP on June 22, 2004. Implementation of the plan will conserve approximately 500,000 acres of habitat, including 347,000 acres of land already in public or quasi-public ownership and about 153,000 acres of land that will be purchased or conserved through other means, such as land acquisition, conservation easements, or designated open space. The money for purchasing private land will come from numerous sources, such as development mitigation fees, as well as from state and federal funds. The MSHCP includes a program for the collection of development mitigation fees, policies for the review of projects in areas where habitat must be conserved, and policies for the protection of riparian areas, vernal pools, and narrow endemic plants. It also includes requirements to perform plant, bird, reptile, and mammal surveys in certain areas.

The primary intent of the MSHCP is to provide for the conservation of a range of plants and animals and in return, provide take coverage and mitigation for projects throughout western Riverside County to avoid the cost and delays of mitigating biological impacts on a project-by-project basis. The plan would allow the incidental take (for development purposes) of species and their habitat from development. The City of Wildomar is a permittee to the MSHCP.

3.13 LAND USE

Stephens' Kangaroo Rat Habitat Conservation Plan

Wildomar is located within the boundary of the adopted habitat conservation plan (HCP) for the endangered Stephens' kangaroo rat (SKR) implemented by the Riverside County Habitat Conservation Agency. The SKR HCP mitigates impacts from development on the Stephens' kangaroo rat by establishing a network of preserves and a system for managing and monitoring them. Through implementation of the SKR HCP, more than \$45 million has been dedicated to the establishment and management of a system of regional preserves designed to ensure the persistence of the Stephens' kangaroo rat in the habitat conservation plan area. This effort has resulted in the permanent conservation of approximately 50 percent of the SKR occupied habitat remaining in the habitat conservation plan area. Through direct funding and in-kind contributions, SKR habitat in the regional reserve system is managed to ensure its continuing ability to support the species. The City of Wildomar is a member agency of the Riverside County Habitat Conservation Agency. The city is located within the SKR HCP area and is required to comply with applicable provisions of the habitat conservation plan.

3.13.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

California Environmental Quality Act (CEQA) Guidelines Appendix G states that a project may have a significant effect on the environment if the project would:

- 1) Physically divide an established community.
- 2) Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- 3) Conflict with any applicable habitat conservation plan or natural community conservation plan.

The potential for the proposed project to conflict with the applicable habitat conservation plans and/or natural community conservation plan was addressed in Section 3.3, Biological and Natural Resources, of this EIR. As such, this issue area (Standard of Significance 3) will not be analyzed further in this section and the reader is referred to Section 3.3 for that discussion.

METHODOLOGY

CEQA does not treat project consequences relating solely to land use, socioeconomic, or population, employment, or housing issues as direct physical impacts to the environment. An EIR may provide information regarding land use, planning, and socioeconomic effects; however, CEQA does not recognize these types of project consequences as typical impacts on the physical environment. The impact assessment in this section focuses on changes in land use, use compatibility, and General Plan consistency to the extent that potential General Plan conflicts may lead to physical impacts on the environment. Physical effects on the environment that could result from implementation of the project are addressed in the appropriate technical sections (Sections 3.1 through 3.14) of this EIR.

Because the potential impacts described in this section are related to land use compatibility and consistency with the General Plan and would not directly result in physical impacts on the environment, no mitigation is proposed. Any mitigation measures needed to address indirect physical impacts are addressed in the appropriate technical sections (Sections 3.1 through 3.14).

It should be noted that potential inconsistency with an adopted plan or policy does not necessarily mean that a significant physical impact would occur, but since the plans and policies analyzed here are specifically intended to avoid or mitigate potential environmental impacts, for the purposes of this analysis, inconsistencies with these plans and policies are considered to be significant impacts.

PROJECT IMPACTS AND MITIGATION MEASURES

Physically Divide an Established Community (Standard of Significance 1)

Impact 3.13.1 Implementation of the proposed project would not physically divide an established community. There would be **no impact**.

Division of an established community commonly occurs as a result of development of physical features that constitute a barrier to easy and frequent travel between two or more constituent parts of a community. For example, a large freeway structure with few crossings could effectively split a community.

The project proposes to construct residential land uses on an undeveloped site within the Wildomar city limits. The site is in a transitional area between commercial land uses to the west and residential land uses to the east. The location of future residential uses in this area is appropriate in that it would not introduce an incompatible land use to the area and there is no physical division of a community. There would be **no impact**.

Mitigation Measures

None required.

Potential Conflicts with Applicable Land Use Plans and Policies (Standard of Significance 2)

Impact 3.13.2 Implementation of the proposed project would not result in inconsistencies with adopted plans and policies intended to avoid or mitigate physical environmental effects. This would be a **less than significant** impact.

The project site includes a single parcel within the city, currently designated in the Wildomar General Plan as BP and zoned R-R. The project proposes to amend the City General Plan by changing the land use designation from BP to Commercial Retail (CR) on 7.33 net acres (southerly portion of the site) and to High Density Residential (HDR) on 10.68 net acres (northerly portion of the site). The proposed General Plan Amendment would allow the townhomes to be built on the HDR portion of the property and the senior living facility to be built on the CR portion. The project proposes to change the current zoning designation from R-R to C/1-C/P (General Commercial) on 7.73 acres (southerly portion) and from R-R to R-3 (General Residential) on 10.68 acres (northerly portion) (**Figures 3-13.1 and 3-13.2**).

3.13 LAND USE

As previously described, existing surrounding uses include a mix of rural and suburban residential development, open space, and a few commercial developments, with vacant land directly to the north. A rental storage facility is located adjacent to the northeast corner of the project site. To the east are rural residences, with higher-density residential land uses beyond. There are rural residences to the south of the site, with higher-density residential land uses and I-15 beyond. To the west is vacant land, with an apartment complex beyond. Commercial land uses are also located to the west of the site.

By assigning land use designations to parcels throughout the city, the General Plan seeks to avoid physical environmental effects that may otherwise result due to incompatible neighboring uses, such as residential development being constructed next to heavy industrial uses. This intent is further established in General Plan Policy LU-6.1 requiring land uses “develop in accordance with the General Plan and area plans to ensure compatibility and minimize impacts.”

Both the existing land use designations for the site and the proposed project land use designations and development would result in compatible urban land uses in the project area that would minimize impacts. For instance, the proposed project includes the provision of a senior living facility in proximity to an existing hospital and planned medical office facilities. This aspect of the project would also help to implement Policies H-11 and H-13 of the General Plan Housing Element that encourage developers to produce affordable housing units for seniors and other special needs groups.

The proposed project is also consistent with other key provisions of the City’s General Plan Land Use Element, including Policy LU-3.1 that seeks to establish communities that provide a balanced mix of land uses, including employment, recreation, shopping, and housing; Policy LU-18.1 that seeks to ensure new development does not adversely impact the character of the surrounding area; and Policies LU-23.1 and 23.5 that intend to steer commercial development to appropriate areas of the city, including those adjacent to high-density residential uses. The proposed project serves to further each of these key policies by providing a compatible balance of different residential and commercial uses, respecting the existing character of the community, and providing new commercial uses specifically designed to serve neighboring residential uses.

Therefore, the proposed project would help implement the primary objectives of the General Plan and thereby avoid and/or reduce environmental effects that may otherwise result from incompatible neighboring land uses. Accordingly, impacts would be **less than significant**.

Mitigation Measures

None required.

3.13.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The setting for this cumulative analysis generally includes Wildomar and the surrounding cities and unincorporated areas of Riverside County and all existing, proposed, approved, and planned projects in these areas. Development in the cumulative setting area would change the intensity of land uses in the region and would provide additional housing, employment, shopping, and recreational opportunities.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Land Use Impacts

Impact 3.13.3 The project would introduce growth in an area that is currently undeveloped and could encourage growth on lands in the city. This impact is **less than cumulatively considerable**.

Generally, land use conflicts are site-specific and do not result in cumulative impacts. Site-specific incompatibility issues are addressed and mitigated on a project-by-project basis through implementation of the City's General Plan policies, zoning regulations, and Design Standards and Guidelines, as well as through the environmental review process. The proposed project will provide for development in an area of the city that is currently vacant. The land has been designated for development since adoption of the City's General Plan. As previously stated, the proposed project consists of residential land uses with heightened density and would also provide senior living services and thus employees. This land use mix is compatible with the existing and anticipated development in the vicinity, which consists of high-density residential and commercial uses. Because development of the site is consistent with the City's expectations in this area, this impact is considered **less than cumulatively considerable**.

Mitigation Measures

None required.

3.13 LAND USE

REFERENCES

Riverside County. 2004. *Western Riverside County Multiple Species Habitat Conservation Plan Volume 1*.

SCAG (Southern California Association of Governments). 2015. Website. Accessed April 18. <http://www.scag.ca.gov/about.htm>.

Wildomar, City of. 2015a. General Plan Land Use Map. <http://www.cityofwildomar.org/planning.asp>.

———. 2015b. Zoning Map. <http://www.cityofwildomar.org/planning.asp>.

3.14 EFFECTS FOUND NOT TO BE SIGNIFICANT

3.14 EFFECTS FOUND NOT TO BE SIGNIFICANT

This section is based on the Notice of Preparation (NOP), dated January 26, 2015, and contained in **Appendix 1.0-A** of this Draft Environmental Impact Report (Draft EIR; DEIR). The NOP was prepared to identify the potentially significant effects of the proposed project and was circulated for public review between January 16, 2015, and February 17, 2015. In the course of evaluation, certain impacts were found to be less than significant because the characteristics of the proposed project would not create such impacts. This section provides a brief description of effects found not to be significant or less than significant, based on the NOP comments or more detailed analysis conducted as part of the EIR preparation process. Note that a number of impacts found to be less than significant are addressed in the various Draft EIR topical sections (Sections 3.1 through 3.13) to provide more comprehensive discussion as to why impacts are less than significant, in order to better inform decision-makers and the general public.

3.14.1 AGRICULTURAL AND FOREST RESOURCES

The project site is zoned R-R (Rural Residential) and does not contain any active farmland or forestland, nor does it support trees that could be commercially harvested. These conditions preclude the possibility of the proposed project converting forestland to non-forest use. No impacts would occur.

3.14.2 MINERAL RESOURCES

The proposed project is located in an area designated as MRZ-3 by the Wildomar General Plan (2008). The MRZ-3 zone includes areas where the available geologic information indicates that while mineral deposits are likely to exist, the significance of the deposit is undetermined. Neither the Preliminary Geotechnical and Fault Rupture Hazard Investigation prepared for the project site by Geocon West, Inc. (2014; **Appendix 3.6**) nor the Phase I Environmental Site Assessment prepared by Hillmann Consulting (2012; **Appendix 3.7**) revealed any significant potential for mineral resources on the site. There are no known locally important mineral resource recovery sites identified on the project site in the Wildomar General Plan or in a specific plan or other land use plan of value to the region or to the residents of the state. Therefore, no impacts would occur to mineral resources.

3.14 EFFECTS FOUND NOT TO BE SIGNIFICANT

REFERENCES

Geocon West Inc. 2014. *Preliminary Geotechnical and Fault Rupture Hazard Investigation*.

Hillmann Consulting. 2012. *Phase I Environmental Site Assessment*.

Wildomar, City of. 2008. *City of Wildomar General Plan*.

4.0 – ALTERNATIVES

4.1 DEVELOPMENT OF PROJECT ALTERNATIVES

The range of alternatives included for analysis in an EIR is governed by the “rule of reason.” The primary objective is formulating potential alternatives and choosing which ones to analyze to ensure that the selection and discussion of alternatives fosters informed decision-making and informed public participation. This approach avoids assessing an unmanageable number of alternatives or analyzing alternatives that differ too little to provide additional meaningful insights about their comparative environmental effects.

The California Environmental Quality Act (CEQA) Guidelines require that an environmental impact report (EIR) describe a reasonable range of alternatives to a project that would feasibly attain the basic project objectives but would avoid or substantially lessen one or more of the project’s significant effects (CEQA Guidelines Section 15126.6(a)).

In addition, Sections 15126.6(a) and (b) of the CEQA Guidelines require the consideration of alternatives that could reduce or eliminate any significant adverse environmental effects of the proposed project, including alternatives that may be more costly or could otherwise impede the project’s objectives. The range of alternatives considered must include those that offer substantial environmental advantages over the proposed project and may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors. The CEQA Guidelines also require analysis of a “No Project” alternative and identification of the environmentally superior alternative among those analyzed.

PROJECT OBJECTIVES

In identifying the range of alternatives for analysis in this EIR, the following basic project objectives were considered:

- Establish a mixed-use community for Wildomar with a balance of land uses including senior living, townhomes, and open space.
- Increase full- and part-time employment opportunities for Wildomar residents through development of a senior living community.
- Locate a senior living community within a convenient walking distance from existing and future hospital and medical office facilities and regional public transit stations.
- Create an appropriately sized senior living community that includes a mix of senior housing options and care levels.
- Include on-site recreation opportunities within the community for its residents.
- Utilize architectural styles and design elements which reflect Wildomar’s heritage, namely through the use of ranch, farmhouse, and Craftsman styles.

SUMMARY OF SIGNIFICANT IMPACTS

The significant environmental impacts of the project that the alternatives will seek to eliminate or reduce were determined and based on the findings contained in each technical section as evaluated in Sections 3.1 through 3.13 of this Draft EIR. The specific significant environmental impacts associated with the General Plan as determined in this Draft EIR include the following:

4.0 ALTERNATIVES

Traffic and Circulation

- Substantial increase in traffic volume (**Impact 3.11.2**)

Significant and unavoidable impacts associated with traffic volume increase are due to the uncertainty of implementation of TUMF funded program improvements. While City ordinance requires payment of the TUMF, the City does not have the authority to implement TUMF funded programs independent of the Riverside County Transportation Commission and cannot guarantee that the TUMF funded projects will be built as required in **MM 3.11.2** (Section 3.11 of the EIR). Because this is a policy based impact it would apply for any development in the City subject to the TUMF program. As all projects in the City are subject to the TUMF program, any alternate site or project design would result in similar significant and unavoidable traffic impacts. Therefore, is no feasible alternative that would reduce or eliminate this significant and unavoidable impact..

4.2 ALTERNATIVE DESCRIPTIONS AND ANALYSIS

DESCRIPTION OF ALTERNATIVES

Alternative 1: No Project

CEQA Guidelines Section 15126.6(e) requires that a No Project Alternative be evaluated in an EIR. The No Project analysis must discuss the circumstance under which the project does not proceed. The comparison is that of the proposed project versus what can reasonably be expected to occur on the properties should the proposed project not be approved. The analysis allows decision-makers to compare the impacts of approving the project with the impacts of not approving the project (CEQA Guidelines Section 15126.6(e)(3)(B)). However, the No Project Alternative is not intended to be a no action alternative under CEQA.

It is important to note that the No Project Alternative does not necessarily mean the project site will remain in an undeveloped state. If no action is taken on the proposed project, it is reasonable to assume that another project would be proposed at some point in the future. The City of Wildomar designates this project site Business Park (BP). This land use designation is characterized by employee-intensive uses such as research and development, technology centers, corporate offices, "clean" industry, and supporting retail uses. The City of Wildomar Zoning Ordinance zones this site Rural Residential (R-R), which is intended to provide for the development of low-density residential uses. Just as with the proposed project, future development would require either a General Plan Amendment to change the designation to residential use or a change of zone to support a business park use in order for the land use designation and zoning district to be consistent with one another.

Under this alternative, the 20-acre site would be available for development of office space. It is likely that there would be several buildings on separate parcels rather than a single building. Multiple buildings will reduce the total potential building area, as each parcel must comply with storm drainage storage, landscape, and parking requirements. While the BP land use designation allows a total build area of 0.60, the City is more accustomed to projects with a floor area ratio (FAR) of 0.35. Therefore, this alternative assumes a total floor area ratio of 0.35 for a total assumed building size of 304,920 square feet.

Alternative 2: All Commercial Alternative

The proposed project includes a change for a portion of the site to commercial uses to support the senior living facility. This alternative would change the General Plan land use designation from Business Park (BP) to Commercial Retail (CR) and would also involve a zone change from Rural Residential (R-R) to General Commercial (C/1-C/P) for the entire site. Land uses allowed under this commercial-only alternative include uses that are commercial or service in nature (e.g., banks, barbershops, department stores, laundries and laundromats, restaurants and other eating establishments, retail sales, variety stores). This alternative is evaluated to determine if impacts associated with biological and natural resources, cultural and paleontological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic are reduced.

Alternative 2 would allow the development of commercial retail uses, such as shopping centers, supermarkets, and convenience markets with gas station pumps. According to the Institute of Transportation Engineers (ITE), shopping centers generate 42.94 daily trips per 1,000 square feet, supermarkets generate 102.94 trips per 1,000 square feet, and a convenience market with gas station pumps can generate 845.60 daily trips per 1,000 square feet. So a shopping center with a minimum of 30,000 square feet, a supermarket that is 11,000 square feet or more, and a convenience market that is 2,000 square feet or more would each individually generate more trips per day than the proposed project. If combined, these uses would create significantly more trips per day than the proposed project.

PROJECT ALTERNATIVES CONSIDERED BUT REJECTED AS INFEASIBLE

Off-Site Alternative

Off-site alternatives are typically included in an environmental document to avoid, lessen, or eliminate the significant impacts of a project by considering the proposed development in an entirely different location. To be feasible, development of off-site locations must be able to fulfill the project purpose and meet most of the project's basic objectives. Locating this project off-site would result in similar development potential and associated impacts. For this reason, an off-site alternative is considered infeasible pursuant to CEQA Guidelines Section 15126.6(c) and is rejected as a feasible project alternative.

ANALYSIS OF ALTERNATIVES

Each alternative is compared to the proposed project. The project alternatives are evaluated in less detail than those of the proposed project, and the impacts are described in terms of difference in outcome compared with implementing the proposed project. **Table 4.0-1** at the end of this section provides an at-a-glance comparison of the environmental benefits and impacts of each alternative.

Comparative Impacts of Alternative 1: No Project

Aesthetics, Light, and Glare

Alternative 1 assumes the development of office (nonresidential) uses. Under this alternative, the development of nonresidential uses would most likely result in less activity on the site during non-peak hours (before 7:00 a.m. and after 7:00 p.m.), as such office uses are typically not used at night or on weekends. The limited hours of use would result in less need for lighting and a reduced effect of automobile headlights. However, the design of office uses is typically different

4.0 ALTERNATIVES

from residential uses, with different building materials used, such as more windows or other reflective materials, which have the potential to produce more glare. Additionally, the potential higher vertical design of office buildings could be in the line of sight to surrounding visual resources. The City's design review process would attenuate many of the potential impacts from professional office uses. Even though the resulting buildings are likely to be larger than surrounding buildings, impacts to visual resources would likely be similar to those of the proposed project.

Air Quality

The air quality analysis for the proposed project identified that particulate matter (PM₁₀ and PM_{2.5}) emissions during construction would exceed the South Coast Air Quality Management District's (SCAQMD) pounds per day threshold, thus requiring mitigation measures to reduce impact levels. Construction of Alternative 1 would likely result in similar construction impacts, also requiring mitigation measures to reduce impacts. Additionally, professional offices generate more vehicular traffic than an assisted living facility and residential uses, and as a result, would be anticipated to have greater operational emissions than the proposed project. Overall, air pollutant emissions from Alternative 1 would be greater than the proposed project.

Biological and Natural Resources

The biological assessment for the site identified the potential for disturbance to burrowing owls, migratory birds, and riparian habitats associated with construction and operation. Alternative 1 would result in site disturbance similar to that of the proposed project. The mitigation measures outlined in Impact 3.3.1 would also apply to development under this alternative. Additionally, Alternative 1 assumes that the entire site will be graded and developed to support the office uses. All development in the city is subject to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), identical to the proposed project. Since compliance with the MSHCP is required, impacts for this alternative are considered similar to those of the proposed project. Overall, the impacts of this alternative would be the same as with the proposed project.

Climate Change and Greenhouse Gases

The greenhouse gas (GHG) emissions analysis for the proposed project identified that the majority of GHG emissions would come from automobiles. **Table 3.11-3** shows trip generation for the uses proposed by the project, and **Table 3.11-4** illustrates that, based on the types of uses proposed, 1,129 average daily automobile trips would be generated as a result of the proposed project. Office space typically generates more vehicular traffic and would result in a greater number of trips than an assisted living facility and residential uses. While GHG-generating automobile trips would be slightly offset compared to the project due because office space is typically not used on the weekends, Alternative 1 would still result in more mobile source GHG emissions than the proposed project. Therefore, operational emissions would be greater than the proposed project. Overall, GHG emissions would be more under Alternative 1.

Cultural and Paleontological Resources

While no cultural or paleontological resources were identified on any of parcels evaluated for the proposed project, mitigation measures were required to reduce the impacts to undiscovered cultural or paleontological resources. These same measures would be required for any land disturbances under Alternative 1. Therefore, cultural resources impacts would be similar for both the proposed project and Alternative 1.

Geology and Soils

Southern California, including the project area, is subject to the effects of seismic activity because of the active faults that traverse the area. The Temecula branch of the Elsinore fault is the closest surface trace of an active fault and is approximately 2 miles west of the project site. Further, a fault hazard investigation performed on the project site concluded that an unnamed fault runs through the project site, though it is not likely to result in surface rupture. Because Alternative 1 would allow development on the project site that includes grading to accommodate buildings, the impacts associated with seismicity, ground failure, and unstable or erodible soils would be the same as with the proposed project and would also require the implementation of mitigation measures to reduce impacts.

Hazards and Hazardous Materials

As identified in Impact 3.7.2, a Phase I Environmental Site Assessment concluded that no hazardous building materials are likely to occur on-site because the site is currently undeveloped. However, minor nuisance dumping, such as discarded tires, a hot tub, and other debris, were noted during site reconnaissance. Implementation of mitigation measure **MM 3.7.2** would reduce associated impacts to less than significant levels. Since this alternative would be required to implement the same mitigation measures to reduce impacts, Alternative 1 would be similar to the proposed project.

Hydrology and Water Quality

Similar to the proposed project, Alternative 1 would result in additional impervious surfaces on the project site. However, additional impervious areas associated with office spaces, such as additional parking, may be required. This would result in greater pavement area and therefore more runoff. However, similar to the proposed project, the alternative would be required to provide a stormwater pollution prevention plan (SWPPP) and to comply with National Pollutant Discharge Elimination System (NPDES) provisions (see mitigation measure **MM 3.8.1**) as well as comply with MS4 provisions. Therefore, impacts to hydrology and water quality would be similar to those of the proposed project.

Noise

The proposed project would result in operational phase traffic noise impacts to the proposed residences facing Elizabeth Lane and Prielipp Road. Mitigation measure **MM 3.9.5** would reduce these noise impacts to less than significant levels. This impact and need for mitigation would not occur under Alternative 1, since no residential uses would be developed. Overall operational noise levels associated with Alternative 1 would be greater than those of the proposed project since Alternative 1 contemplates office uses that would generate more traffic than the proposed project (see Transportation and Traffic below). Although traffic noise levels overall would be greater, the proposed project impact associated with exposure of new residential units to noise and associated need for mitigation would be avoided. Therefore noise impacts associated with Alternative 1 are considered less than those under the proposed project.

Public Services, Utilities, and Recreation

In general, residential land uses produce a greater demand for public services than nonresidential uses, particularly for schools, parks, and recreation services. The development of office uses may reduce demand for police services slightly, and overall demand for fire protection services would likely be less than that of the project. The reduction in residential uses

4.0 ALTERNATIVES

would also reduce demand for parks, so public services and recreation impacts would be less severe than those of the proposed project.

Demand for utilities can vary depending on land use. According to the Elsinore Valley Municipal Water District (EVMWD) Design Standards and Standard Drawings (2013), the district conducts a water distribution and wastewater system analysis review for each new development project to determine the backbone infrastructure needs on a case-by-case basis, and any needed facilities as determined by the EVMWD are included in a development agreement for each project. In the case of development proposals, compliance with the EVMWD's Design Standards and Standard Drawings ensures that the water district has adequate infrastructure to meet the demand associated with all types of development in the area. Therefore, Alternative 1 water demand impacts would be similar to those of the proposed project.

The analysis in this Draft EIR assumed that solid waste generation would be 0.41 tons of solid waste per resident each year. Employee-generating land uses tend to have higher solid waste disposal rates than residential land uses. However, all development in Wildomar is subject to compliance with the City's approved Source Reduction and Recycling Element (SRRE), which identifies the programs and plans for meeting the 50 percent state diversion mandate intended to divert more solid waste from landfills. The SRRE includes a requirement for enclosures/adequate space for and screening of recycling containers at businesses and multi-family dwellings. Furthermore, all development with nonresidential accounts generating more than 4 yards per week of solid waste and multi-family complexes with five units or more would be required to have a recycling program in place consistent with the mandatory nonresidential and multi-family recycling requirements of Assembly Bill 341. Nonetheless, Alternative 1 would result in more solid waste generation than the proposed project.

Transportation and Traffic

Per **Table 3.11.4**, it is estimated that 1,129 average daily automobile trips would be generated as a result of the project. Alternative 1 would allow the development of office space. According to the Institute of Transportation Engineers Trip Generation manual (2008), office space generates 11.01 trips per 1,000 square feet. Based on the ITE's estimate, if the project were to be developed at a FAR of 0.35 resulting in 304,920 square feet of development, total daily trips generated would be 3,357. Since Alternative 1 has the potential to generate far more daily trips than the proposed project, impacts associated with this issue area are considered greater with Alternative 1 than with the proposed project.

The proposed project would result in an increase in traffic under the Opening Year (2017) With Project scenario (with roadway improvements factored in) that is substantial in relation to the existing traffic load and capacity of the street system or exceeds an established level of service standard (i.e., result in a substantial increase in either the volume-to-capacity ratio and/or the level of service at intersections). However, the project applicant will be required to participate in the funding of off-site improvements identified per City Municipal Code Chapter 3.40, Western Riverside County and Transportation Uniform Mitigation Fee, and Chapter 10.40, Traffic Signal Cost Mitigation Fee. Alternative 1 would result in similar or greater impacts and would also be required to participate in the funding of off-site improvements. Therefore, these impacts are considered similar to the proposed project.

Lastly, implementation of the proposed project could result in temporary blockages of Prielipp Road and Elizabeth Lane and other roadways, causing an impact to emergency access. Implementation of mitigation measure **MM 3.11.4**, which requires a traffic management plan, is required to reduce impacts. Alternative 1 could also result in temporary blockages and would

also be required to develop a traffic management plan. Therefore, impacts associated with Alternative 1 are similar to those of the proposed project.

Population and Housing

The project proposes residential land uses on the site, which are estimated to allow 449 new residents in Wildomar. Since Alternative 1 would allow nonresidential development, no direct population growth would occur. However, development of professional offices would result in an opportunity for jobs and therefore possibly result in an indirect growth in population. Workers from surrounding areas could be anticipated to travel to/from the development, and some workers might relocate to Wildomar to avoid the need to commute. As of January 1, 2015, the California Department of Finance estimates that the housing vacancy rate in Wildomar is 7.5 percent. With an occupancy rate of 3.31 residents per unit, the State estimates that there is sufficient housing for 2,765 new residents, even if no other housing is constructed. Assuming 3 employees per 1,000 square feet of office space, approximately 915 new employees might be expected with the assumptions for building size in this alternative. If each new employee moved to the city, there remains sufficient housing stock for all of them as reported by the State. Therefore, Alternative 1 would result in similar impacts to population and housing as the proposed project.

Land Use

Just as with the proposed project, future development associated with the implementation of this alternative would require either a General Plan Amendment to change the designation to residential use or a change of zone to support a business park use in order for the land use designation and zoning district to be consistent with one another. However, the change in land use designation or zoning does not, in and of itself, constitute an environmental impact. Approval of the proposed project would eliminate all conflicts between the proposed project and the City General Plan and Zoning Ordinance. Furthermore, there are no General Plan policy provisions that prohibit General Plan Amendments or rezoning. No aspect of the proposed project would conflict with specific General Plan policies. Upon approval, the proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As such, Alternative 1 would not result in any reduction of impacts related to land use; impacts would be similar to those of the proposed project.

Comparative Impacts of Alternative 2: All Commercial Alternative

Aesthetics, Light, and Glare

Alternative 2 would allow the development of nonresidential uses. Because the design of commercial uses is typically different from residential uses, with different building materials used, such as more windows or other reflective materials, Alternative 2 has the potential to produce more glare. Additionally, there is a potential that the higher vertical design of commercial buildings associated with commercial retail uses could be in the line of sight to surrounding visual resources. However, the City's design review process would attenuate many of the potential impacts from professional office uses. Even though the resulting buildings are likely to be larger than surrounding buildings, impacts to visual resources would likely be similar to those of the proposed project.

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Air Quality

The air quality analysis for the proposed project identified that particulate matter (PM₁₀ and PM_{2.5}) emissions during construction would exceed the SCAQMD's pounds per day threshold, thus requiring mitigation measures to reduce impact levels. Construction of Alternative 2 would likely result in similar construction impacts, also requiring mitigation measures to reduce impacts. Additionally, **Table 3.11-3** shows trip generation for the uses proposed by the project, and **Table 3.11-4** illustrates that, based on the types of uses proposed, 1,129 average daily automobile trips would be generated as a result of the proposed project. Depending on the type of establishment, commercial uses can generate more vehicular traffic than an assisted living facility and residential uses, and as a result, would have also have operational emissions that would be greater than the proposed project. Alternative 2 would result in more mobile source pollutant emissions during operations than the proposed project. Overall, air pollutant emissions would be greater under this alternative.

Biological and Natural Resources

The biological assessment for the site identified the potential for disturbance to burrowing owls, migratory birds, and riparian habitats associated with construction and operation. Alternative 2 would result in site disturbance similar to that of the proposed project. The mitigation measures outlined in Impact 3.3.1 would also apply to development under this alternative. Additionally, Alternative 2 assumes that the entire site will be graded and developed to support the commercial uses. All development in the city is subject to the MSHCP, identical to the proposed project. Since compliance with the MSHCP is required, impacts for this alternative are considered similar to those of the proposed project. Overall, the impacts of this alternative would be similar to the proposed project.

Climate Change and Greenhouse Gases

The GHG emissions analysis for the proposed project identified that the majority of GHG emissions would come from automobiles. **Table 3.11-3** shows trip generation for the uses proposed by the project, and **Table 3.11-4** illustrates that, based on the types of uses proposed, 1,129 average daily automobile trips would be generated as a result of the proposed project. Depending on the type of uses, commercial retail uses can generate more vehicular traffic and would result in a greater number of trips than an assisted living facility and residential uses. Alternative 2 would allow the development of commercial retail uses, such as shopping centers, supermarkets, and convenience markets with gas station pumps. According to the ITE, shopping centers generate 42.94 daily trips per 1,000 square feet, supermarkets generate 102.94 trips per 1,000 square feet, and a convenience market with gas station pumps can generate 845.60 daily trips per 1,000 square feet. A shopping center with a minimum of 30,000 square feet, a supermarket that is 11,000 square feet or more, and a convenience market that is 2,000 square feet or more would each individually generate more trips per day than the proposed project. If combined, these uses would create significantly more trips per day than the proposed project. Therefore, operational emissions with Alternative 2 have the potential to be greater than with the proposed project. Overall, more GHG emissions would result under Alternative 2.

Cultural and Paleontological Resources

While no cultural or paleontological resources were identified on any of parcels evaluated for the proposed project, mitigation measures were required to reduce the impacts to undiscovered cultural or paleontological resources. These same measures would be required for

any land disturbances under Alternative 2. Therefore, cultural resources impacts would be similar for both the proposed project and Alternative 2.

Geology and Soils

Southern California, including the project area, is subject to the effects of seismic activity because of the active faults that traverse the area. The Temecula branch of the Elsinore fault is the closest surface trace of an active fault and is approximately 2 miles west of the project site. Further, a fault hazard investigation performed on the project site concluded that an unnamed fault runs through the project site, though it is not likely to result in surface rupture. Because Alternative 2 would allow development on the project site that includes grading to accommodate buildings, the impacts associated with seismicity, ground failure, and unstable or erodible soils would be the same as the proposed project and would also require the implementation mitigation measures to reduce impacts.

Hazards and Hazardous Materials

As identified in Impact 3.7.2, a Phase I Environmental Site Assessment concluded that no hazardous building materials are likely to occur on-site because the site is currently undeveloped. However, minor nuisance dumping, such as discarded tires, a hot tub, and other debris, were noted during site reconnaissance. Implementation of mitigation measure **MM 3.7.2** would reduce associated impacts to less than significant levels. Since this alternative is required to implement the same mitigation measures to reduce impacts, Alternative 2 would be similar to the proposed project.

Hydrology and Water Quality

Similar to the proposed project, Alternative 2 would result in additional impervious surface on the project site. However, additional impervious areas associated with commercial retail uses, such as additional parking, may be required. This would result in greater pavement area and therefore more runoff. However, similar to the proposed project, the alternative would be required to provide a SWPPP as well as comply with the NPDES provisions (see mitigation measure **MM 3.8.1**) and with MS4 provisions. Therefore, impacts to hydrology and water quality would be similar to those of the proposed project.

Noise

The proposed project would result in operational phase traffic noise impacts to the proposed residences facing Elizabeth Lane and Prielipp Road. Mitigation measure **MM 3.9.5** would reduce these noise impacts to less than significant levels. This impact and need for mitigation would not occur under Alternative 2, since no residential uses would be developed. Overall operational noise levels associated with Alternative 2 would be greater than those of the proposed project since Alternative 2 contemplates commercial uses that would generate more traffic than the proposed project (see Transportation and Traffic below). Although traffic noise levels overall would be greater, the proposed project impact associated with exposure of new residential units to noise and associated need for mitigation would be avoided. Therefore noise impacts associated with Alternative 2 are considered less than those under the proposed project.

Public Services, Utilities, and Recreation

In general, residential land uses produce a greater demand for public services than nonresidential uses, particularly for schools, parks, and recreation services. The development of

4.0 ALTERNATIVES

commercial uses may reduce demand for police services slightly, but overall demand for fire protection services would likely be similar to that of the project. The reduction in residential uses associated with this alternative would also reduce demand for parks, so public services and recreation impacts would be less severe than those of the proposed project.

Demand for utilities can vary depending on land use. According to the EVMWD Design Standards and Standard Drawings (2013), the district conducts a water distribution and wastewater system analysis review for each new development project to determine the backbone infrastructure needs on a case-by-case basis, and any needed facilities as determined by the EVMWD are included in a development agreement for each project. In the case of development proposals, compliance with the EVMWD's Design Standards and Standard Drawings ensures that the water district has adequate infrastructure to meet the demand associated with all types of development in the area. Therefore, Alternative 2 water demand impacts would be similar to those of the proposed project.

The analysis in this Draft EIR assumed that solid waste generation would be 0.41 tons of solid waste per resident each year. Employee-generating land uses tend to have higher solid waste disposal rates than residential land uses. However, all development in Wildomar is subject to compliance with the City's approved Source Reduction and Recycling Element (SRRE), which identifies the programs and plans for meeting the 50 percent state diversion mandate intended to divert more solid waste from landfills. The SRRE includes a requirement for enclosures/adequate space for and screening of recycling containers at businesses and multi-family dwellings. Furthermore, all development with nonresidential accounts generating more than 4 yards per week of solid waste and multi-family complexes with five units or more would be required to have a recycling program in place consistent with the mandatory nonresidential and multi-family recycling requirements of Assembly Bill 341. Nonetheless, Alternative 2 would result in more solid waste generation than the proposed project.

Transportation and Traffic

Per **Table 3.11.4**, it is estimated that 1,129 average daily automobile trips would be generated as a result of the project. Alternative 2 would allow the development of commercial retail uses, such as shopping centers, supermarkets, and convenience markets with gas station pumps. According to the ITE, shopping centers generate 42.94 daily trips per 1,000 square feet, supermarkets generate 102.94 trips per 1,000 square feet, and a convenience market with gas station pumps can generate 845.60 daily trips per 1,000 square feet. A shopping center with a minimum of 30,000 square feet, a supermarket that is 11,000 square feet or more, and a convenience market that is 2,000 square feet or more would each individually generate more trips per day than the proposed project. If combined, these uses would create significantly more trips per day than the proposed project. Presumably, this could equate to more traffic than what is generated at an assisted living care facility and high-density residential uses proposed by the project (**Table 3.11.3**). For the Existing Plus Project Scenario, the proposed project does not cause an acceptably operating intersection to operate unacceptably. However, Alternative 2 has the potential to do so. As such, impacts associated with this issue area are considered greater with Alternative 2 than with the proposed project.

The proposed project would result in an increase in traffic under the Opening Year (2017) With Project scenario (with roadway improvements factored in) that is substantial in relation to the existing traffic load and capacity of the street system or exceeds an established level of service standard (i.e., result in a substantial increase in either the volume-to-capacity ratio and/or the level of service at intersections). However, the project applicant will be required to participate in the funding of off-site improvements identified per City Municipal Code Chapter 3.40, Western

Riverside County and Transportation Uniform Mitigation Fee, and Chapter 3.44 City Traffic Signal Development Impact Fee). Alternative 2 would result in similar or greater impacts and would also be required to participate in the funding of off-site improvements.

Lastly, implementation of the proposed project could result in temporary blockages of Prielipp Road and Elizabeth Lane and other roadways, causing an impact to emergency access. Implementation of mitigation measure **MM 3.11.4**, which requires a traffic management plan, is required to reduce impacts. Alternative 2 could also result in temporary blockages and would also be required to develop a traffic management plan. Therefore, these impacts are considered similar to those of the proposed project.

Population and Housing

The project proposes residential land uses on the site, which are estimated to allow 449 new residents in Wildomar. Since Alternative 2 would allow nonresidential development, no direct population growth would occur. However, development of commercial retail would result in an opportunity for jobs and therefore possibly result in an indirect growth in population. Workers from surrounding areas could be anticipated to travel to/from the development, and some workers might relocate to Wildomar to avoid the need to commute. As of January 1, 2015, the California Department of Finance estimates that the housing vacancy rate in Wildomar is 7.5 percent. With an occupancy rate of 3.31 residents per unit, the State estimates that there is sufficient housing for 2,765 new residents, even if no other housing is constructed. Assuming 3 employees per 1,000 square feet of commercial retail space, approximately 915 new employees might be expected with the assumptions for building size in this alternative. If each new employee moved to the city, there remains sufficient housing stock for all of them as reported by the State. Therefore, Alternative 2 would result in similar impacts to population and housing as the proposed project.

Land Use

Similar to the proposed project, implementation of this alternative would require a General Plan Amendment from Business Park (BP) to Commercial Retail (CR) and a change of zone from Rural Residential (R-R) to General Commercial (C/1-C/P) to accommodate commercial retail uses. Approval of the proposed project would eliminate all conflicts between the proposed project and the City General Plan and Zoning Ordinance. Furthermore, there are no General Plan policy provisions that prohibit General Plan Amendments or rezoning. No aspect of the proposed project would conflict with specific General Plan policies. Upon approval, the proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As such, Alternative 2 would not result in any reduction of impacts related to land use; impacts would be similar to those of the proposed project.

4.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 4.0-1 provides a summary of the potential impacts of the alternatives evaluated in this section, as compared to the potential impacts of the proposed project. As demonstrated in Sections 3.1 through 3.14, the proposed project would result in significant and unavoidable impacts to Traffic and Circulation (Section 3.11). Both Alternative 1 and 2 would avoid the proposed project's noise impact to proposed residential uses and eliminate the need for associated mitigation. However, overall, both alternatives would result in greater impacts in regard to traffic, air quality, greenhouse gas emissions, public services, and utilities. Therefore,

4.0 ALTERNATIVES

both alternatives are considered environmentally superior for noise impacts, but the proposed project would be superior or equivalent for all other environmental concerns.

**TABLE 4.0-1
ALTERNATIVES IMPACTS COMPARISON**

Environmental Issue	Proposed Project Impact Finding (Mitigated)	Alt 1: No Project	Alt 2: All Commercial
Aesthetics, Light, and Glare	Less Than Significant	=	=
Air Quality	Less Than Significant	+	+
Biological and Natural Resources	Less Than Significant	=	=
Climate Change and Greenhouse Gases	Less Than Significant	+	+
Cultural and Paleontological Resources	Less Than Significant	=	=
Geology and Soils	Less Than Significant	=	=
Hazards and Hazardous Materials	Less Than Significant	=	=
Hydrology and Water Quality	Less Than Significant	=	=
Noise	Less Than Significant	-	-
Public Services, Utilities, and Recreation	Less Than Significant	+	+
Transportation and Traffic	Less Than Significant	+	+
Population and Housing	Less Than Significant	=	=
Land Use	Less Than Significant	=	=

- Impacts less than those under proposed project

+ Impacts greater than those under proposed project

= Impacts the same as those under proposed project, or no better or worse

REFERENCES

EVMWD (Elsinore Valley Municipal Water District). 2013. Design Standards and Standard Drawings: Volume I.

ITE (Institute of Transportation Engineers). 2008. *Trip Generation, 8th Edition*.

4.0 ALTERNATIVES

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5.0 – OTHER CEQA ANALYSIS

This section discusses additional topics statutorily required by the California Environmental Quality Act (CEQA), including growth-inducing impacts and significant irreversible environmental changes/irretrievable commitment of resources.

5.1 GROWTH-INDUCING IMPACTS

INTRODUCTION

CEQA Guidelines Section 15126.2(d) requires that an environmental impact report (EIR) evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by CEQA Guidelines Section 15126.2(d) as follows:

...the way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth... Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also...the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. For example, a project providing an increased water supply in an area where water service historically limited growth could be considered growth inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

The CEQA Guidelines state that it is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment (CEQA Guidelines Section 15126.2[d]). However, growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide land use development patterns and growth policies that allow the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service. A project that would induce "disorderly" growth (growth that conflicts with local land use plans) could indirectly cause additional adverse environmental impacts and other public services impacts. Thus, to assess whether a growth-inducing project would result in adverse secondary effects, it is important to assess the degree to which the growth accommodated by a project would or would not be consistent with applicable land use plans.

5.0 OTHER CEQA ANALYSIS

COMPONENTS OF GROWTH

The timing, magnitude, and location of land development and population growth in a community or region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and nonresidential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions.

PROJECT-SPECIFIC GROWTH-INDUCING IMPACTS

Growth Inducement Potential

The project proposes residential development. Therefore, the proposed project would directly induce growth both on the project site and in Wildomar as a whole. However, the proposed project will also provide services for the benefit of the residents of the community such as a senior living facility, assisted living facility, and indoor/outdoor recreational opportunities for on-site residents. Thus, growth on the project site would largely be confined to the project area and would avoid induced growth in the larger Wildomar region.

Development of the project site would also result in the improvement and extension of infrastructure facilities located in and/or adjoining the project site. Under typical project conditions, any time utility lines or other infrastructure is expanded, growth inducement occurs, as these improvements allow not only for the development responsible for expanding the infrastructure but also for any other projects proposed in the surrounding area as a result of the availability of new infrastructure. However, in the case of the proposed project, the surrounding area is already developed with residential and commercial uses that are currently serviced by existing infrastructure. As such, the project would not be expected to induce growth as a result of new infrastructure.

Growth Effects of the Project

The proposed project would result in an increase in Wildomar's population. This would, in turn, result in increased traffic, air pollutant emissions, operational and traffic noise, and demand for services. Environmental effects of developing the project site include potential effects on special-status species and their habitat, potential destruction or damage to cultural resources, increased erosion and runoff affecting soil stability and water quality, changes to drainage patterns and runoff, potential land use conflicts, increased light and glare, and changes to visual character. However, these issues are discussed throughout this Draft EIR in Sections 3.1 through 3.14. Mitigation is provided when needed.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Sections 21100(b)(2) and 21100.1(a) require that EIRs prepared for the adoption of a plan, policy, or ordinance of a public agency include a discussion of significant irreversible environmental changes of project implementation. In addition, CEQA Guidelines Section 16126.2(c) describes irreversible environmental changes as:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as

highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Long-term irreversible environmental changes would include a change in the land use and visual character of the site, an increase in local and regional traffic and associated air pollutant emissions and noise level increases, an increase in the volumes of solid waste and wastewater generated in the area, and an increase in water consumption.

Development of the project site would irretrievably commit building materials and energy to the construction and maintenance of buildings and infrastructure proposed. Nonrenewable and limited resources that would likely be consumed as part of project site development would include, but are not limited to, oil, natural gas, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. In addition, the project site would result in an increased demand on public services and utilities (see Section 3.10).

5.3 ENERGY CONSERVATION

INTRODUCTION

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the California legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The CEC’s statutory mission is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the California Resources Agency created Appendix F of the CEQA Guidelines.

CEQA Guidelines Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy and therefore would not create a significant impact on energy resources.

BACKGROUND

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximate amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs
Gasoline	120,388–124,340 per gallon
Diesel Fuel	138,490 per gallon
Natural Gas (compressed gas)	22,453 per pound
Electricity	3,414 per kilowatt-hour

Sources: USDOE 2014

5.0 OTHER CEQA ANALYSIS

Given the nature of the proposed project, the following discussion focuses on the three sources of energy that are most relevant to the project—electricity and natural gas for the proposed facility, and transportation fuel for vehicle trips associated with the project.

Total energy usage in California was 7,641 trillion BTUs in 2012, which equates to an average of 201 million BTUs per capita. Of California's total energy usage, the breakdown by sector is 38.5 percent transportation, 22.8 percent industrial, 19.3 percent commercial, and 19.2 percent residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use (EIA 2015). In 2014, taxable gasoline sales (including aviation gasoline) in California accounted for 14,702,632,422 gallons of gasoline (BOE 2015).

Current Energy Use

The project site is undeveloped. Therefore, current energy use on the project site can be assumed to be zero.

APPLICABLE REGULATIONS

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the US Department of Transportation, the US Department of Energy, and the US Environmental Protection Agency (EPA) are three agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission (CPUC) and the California Energy Commission are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant state energy-related laws and plans are discussed below.

STATE

California Building Energy Efficiency Standards

The California Green Building Standards Code, CALGreen, was adopted as part of the California Building Standards Code (California Code of Regulations, Title 24, Part 11) and became effective January 1, 2011. Part 11 establishes voluntary standards on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.

The California Energy Commission recently adopted changes to the 2013 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 11 (collectively referred to here as the standards). The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction. The standards offer builders

better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

California Environmental Quality Act Guidelines

CEQA Guidelines Appendix F, Energy Conservation, requires consideration of project impacts on energy and focuses particularly on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code Section 21100[b][3]). The potentially significant energy implications of a project must be considered in an EIR to the extent relevant and applicable to the project.

PROJECT ENERGY CONSUMPTION AND CONSERVATION

Construction activities would involve heavy equipment use that would consume fossil fuel for site preparation (e.g., grading, trenching) and electricity as a temporary power source for electric-powered machinery and tools. Although construction activities would be intermittent, they would use energy in ways that could be considered wasteful or inefficient if measures are not in place to reduce energy demand. Occupancy of the new housing units would consume energy in the form of fossil fuels, as would vehicles used by project occupants and visitors, administrative and maintenance staff (if on-site), and workers.

As described previously, the proposed project would introduce energy usage on a site that is currently undeveloped and thus uses no energy. The project would consume energy in both the short term during project construction and in the long term during project operation. The analysis of electricity/natural gas usage is based on California Emissions Estimator Model (CalEEMod) air quality and greenhouse gas emissions modeling, which quantifies energy use for construction and occupancy with and without mitigation (CalEEMod construction outputs are coupled with conversion ratios obtained from the California Climate Action Registry (2009)). The results of CalEEMod modeling are included in **Appendix 3.4-A** of this EIR. Modeling was based primarily on the default settings in the computer program for Riverside County. The amount of fuel use was estimated using the California Air Resources Board's EMFAC2011 computer program, which also provides assumptions for typical daily fuel usage in Riverside County. This impact discussion assumes full growth potential of the project in order to present the maximum energy use.

Construction Phase

Construction activities would require the use of gasoline, diesel fuel, and other fuels. Energy use during construction typically involves the use of motor vehicles both for transportation of workers and equipment and for direct construction actions such as the use of cranes or lifts. Additional energy would be used for power tools and equipment used on-site, including but not limited to gas generators, air compressors, air handlers and filters, and other typical direct construction energy uses.

Using ratios provided in the Climate Action Registry (2009) General Reporting Protocol Version 3.1, construction associated with the proposed project would require approximately 199,212 gallons of diesel fuel (see **Appendix 5.0-A** for data outputs). This usage would constitute approximately 0.001 percent (199,212 gallons for project/14,702,632,422 gallons for state = 0.001 percent) of typical annual fuel usage in the state as reported by the California Board of Equalization (2015).

The demand for fuel and other energy resources would not result in the need for new or altered facilities given the temporary nature of construction. Furthermore, construction activities are not

5.0 OTHER CEQA ANALYSIS

anticipated to result in an inefficient use of energy, as construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would conserve the use of their supplies to minimize costs to the project. For these reasons and because of the temporary nature of construction activities, this would be less than significant impact.

Operational Phase

The proposed project would consume energy, as would traffic generated by new development.

Energy Consumption

Energy consumption associated with operation of the proposed project is summarized in **Table 5.0-1**. This usage would constitute approximately 0.0005 percent (7,597,617,818 BTUs for project/1,467,000,000,000,000 BTUs for all residential uses in the state = 0.0005 percent) of the typical annual energy consumption of residential square footage in the state as reported by the US Energy Information Administration (2015).

**TABLE 5.0-1
PROJECT ENERGY CONSUMPTION FROM PROPOSED PROJECT**

Source	Kilowatt Hours Annually	kBTU Annually	BTU Equivalent Annually
Proposed Project	1,227,287	3,407,660	7,597,617,818

Source: *Urban Crossroads 2015*.

The project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage, and it is generally assumed that compliance with Title 24 ensures projects will not result in the inefficient, wasteful, or unnecessary consumption of energy. Furthermore, the electricity provider in Riverside County, Southern California Edison, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. Renewable energy is generally defined as energy that comes from resources that are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures projects will not result in the waste of the finite energy resources.

Vehicle Trips Fuel Consumption

According to the traffic analysis prepared for the project (Urban Crossroads 2015), the proposed project would generate 1,129 average daily trips. These additional daily traffic trips in Riverside County would result in the consumption of 320 gallons of automotive fuel daily (see **Appendix 5.0-B**). Per EMFAC2011, it is expected that throughout all of Riverside County, 3,045,220 gallons of automotive fuel will be consumed daily in 2017, the year of anticipated project buildout. Therefore, the increase of fuel usage generated by the proposed project would constitute approximately 0.01 percent (320 gallons of automotive fuel for project/3,045,220 gallons of automotive fuel for county = 0.01 percent) of typical daily fuel usage in the county, which is not considered substantial.

For the reasons described above, the proposed project would not place a substantial demand on regional energy supply or require significant additional capacity, or significantly increase peak and base period electricity demand, or cause wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation.

5.0 OTHER CEQA ANALYSIS

REFERENCES

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6.0 – ABBREVIATIONS

6.0 ABBREVIATIONS

AB	Assembly Bill
ADT	average daily traffic
amsl	above mean sea level
AQMP	air quality management plan
BAU	business as usual
BMP	best management practice
BTU	British thermal unit
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
Cal Fire	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERT	Community Emergency Response Team
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH ₄	methane
CHP	California Highway Patrol
CMP	Congestion Management Program
CMS	Congestion Management System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel

6.0 ABBREVIATIONS

dBA	A-weighted decibel
DBESP	Determination of Biological Equivalent or Superior Preservation
DEIR	Draft Environmental Impact Report
DIF	Development Impact Fee
DOF	California Department of Finance
DTSC	California Department of Toxic Substances Control
EIR	environmental impact report
EPA	US Environmental Protection Agency
ESA	Endangered Species Act
EVMWD	Elsinore Valley Municipal Water District
F	Fahrenheit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FGC	Fish and Game Code
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Map
FR	Federal Register
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	geographic information system
GPA	General Plan Amendment
gpm	gallons per minute
GWP	global warming potential
HCM	Highway Capacity Manual
HCP	habitat conservation plan
HSR	high-speed rail
Hz	Hertz
I-15	Interstate 15
in/sec	inches per second
ITE	Institute of Transportation Engineers
lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
L _{dn}	day-night average level (noise)
L _{eq}	equivalent noise level
LEUSD	Lake Elsinore Unified School District
LHMP	Local Hazard Mitigation Plan
LID	low impact development
L _{max}	maximum noise level
L _{min}	minimum noise level
LOS	level of service
LST	localized significance threshold

MBTA	Migratory Bird Treaty Act
mg/L	milligrams per liter
MLD	most likely descendant
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
mph	miles per hour
MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
Mw	moment magnitude
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO	nitric oxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO₂	nitrogen dioxide
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
N₂O	nitrous oxide
OPR	Office of Planning and Research
O₃	ozone
PCB	polychlorinated biphenyl
PHF	peak-hour factor
PM	particulate matter
PM_{2.5}	fine particulate matter
PM₁₀	coarse particulate matter
ppb	parts per billion
ppm	parts per million
ppv	peak particle velocity
PRC	Public Resources Code
PSA	project study area
RBBD	Roads and Bridge Benefit District
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCIP	Riverside County Integrated Project
RCRA	Resource Conservation and Recovery Act

6.0 ABBREVIATIONS

RCSD	Riverside County Sheriff's Department
RCTC	Riverside County Transportation Commission
RCWMD	Riverside County Waste Management Department
REMEL	Reference Energy Mean Emission Level
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gas
RPS	Renewables Portfolio Standard
RTA	Riverside Transit Agency
RTP	regional transportation plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	sustainable communities strategy
SDRWQCB	San Diego Regional Water Quality Control Board
SEL	Single Event Noise Level
SEMS	Standard Emergency Management System
SIP	State Implementation Plan
SKR	Stephens' kangaroo rat
SO ₂	sulfur dioxide
SO _x	sulfur oxide
SRA	source receptor area
SRRE	source reduction and recycling element
STC	Sound Transmission Class
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDM	transportation demand management
TDS	total dissolved solids
TIA	traffic impact analysis
TMDL	total maximum daily load
TMP	traffic management plan
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
USACE	US Army Corps of Engineers
USC	United States Code
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
UWMP	Urban Water Management Plan
V/C	volume-to-capacity (ratio)
VMT	vehicle miles traveled

VOC	volatile organic compound
WDR	waste discharge requirement
WQMP	water quality management plan
WRCOG	Western Riverside Council of Governments
WRF	water reclamation facility
WWTP	wastewater treatment plant

6.0 ABBREVIATIONS

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